

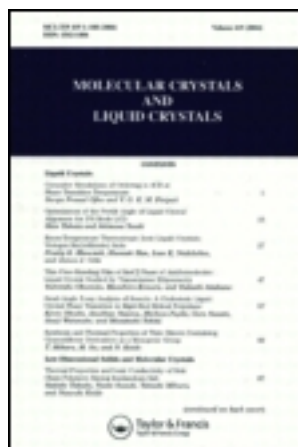
This article was downloaded by: [Tomsk State University of Control Systems and Radio]

On: 19 February 2013, At: 14:37

Publisher: Taylor & Francis

Informa Ltd Registered in England and Wales Registered Number: 1072954

Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Molecular Crystals and Liquid Crystals

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/gmcl16>

Liquid Crystals Bibliography for 1981

W. Fenrenbach^a, A. Stieb^a & G. Meier^a

^a Fraunhofer-Institut fuer Angewandte/
Festkoerperphysik, Eckerstr, 4, D-7800, Freiburg, W.
Germany

Version of record first published: 20 Apr 2011.

To cite this article: W. Fenrenbach, A. Stieb & G. Meier (1985): Liquid Crystals Bibliography for 1981, Molecular Crystals and Liquid Crystals, 128:1-2, 111-170

To link to this article: <http://dx.doi.org/10.1080/00268948508082192>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages

whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Liquid Crystals

Bibliography for 1981[†]

W. FENRENBACH, A. STIEB and G. MEIER

*Fraunhofer-Institut fuer Angewandte/Festkoerperphysik,
Eckerstr, 4, D-7800 Freiburg, W. Germany*

(Received May 23, 1984)

References

1. Abdoh, M. M. M., Srinivasa, Shivaprak., N. C., and Prasad, J. S., *Molec. Cryst.*, **72** 225, (1981), Unit cell dimensions and space groups of some liquid-crystals.
2. Ackerson, B. J., and Clark, N. A., *J. Physique*, **42** 929, (1981), Dynamic light scattering at low rates of shear.
3. Adamczyk, A., *Advances in Liquid-Crystal Research and Applications*, p. 305. Pergamon, 1981, The problem of mean values for disordered films of the anisotropic liquids.
4. Adamczyk, A., *Advances in Liquid-Crystal Research and Applications*, p. 611. Pergamon, 1981, The surface conductivity measurements of the cross-polarized liquid-crystalline layers as the method of investigations of ionic transport phenomena in liquid-crystals.
5. Adamczyk, A., *Advances in Liquid-Crystal Research and Applications*, p. 641. Pergamon, 1981, The uniform model of the bubble and striped domains in nematics: Optical active substance mixtures.
6. Adamska, G., Dabrowski, R., and Dziaduszek, J., *Molec. Cryst.*, **76** 93 (1981), A convenient method of obtaining 2-cyano-4-alkylphenols 4-cyanophenyl and 4-cyanoaniline.
7. Adamski, P., Dylikgro., L. A., and Wojciecho., M., *Molec. Cryst.* **75** 33, (1981), The method of the order parameter *S* calculations for cholesteric liquid-crystals.
8. Adamski, P., Dylikgro., L. A., and Wojciecho., M., *J. Cryst. Grow.*, **52** 332, (1981). Investigation of spherulite growth rate and activation energy of cholesteryl nonanoate and cholesteryl decanoate mixtures.

[†]Bibliography was compiled by using mainly material from the Citation Service ASCA of the Institute for Scientific Information. Philadelphia, Pennsylvania 19106. U.S.A. Period after author indicates abbreviation of name due to limited length available during compilation.

9. Adduci, J., Chapoy, L. L., Jonsson, G., Kops, J., and Shinde, B. M., *Polym. Eng. S.*, **21** 712 (1981), Semi-stiff chain aromatic olyamides: New candidtes for thermotropic liquid-crystalline polymers.
10. Adomenas, P., Butkus, V., Daugvila J., Dienyte, J., and Girdziunai, D., *Advances in Liquid-Crystal Research and Applications*, p. 1029, Pergamon, 1981, Acetylenic liquid-crystals available by Castro reaction.
11. Aftergut, S., and Cole, H. S., *Appl. Phys. L.* **38** 599, (1981), Brightness and contrast ratio of black and white reflective dichroic liquid-crystal displays.
12. Agocs, P. M., Motika, G., Szabo, J. A., and Zoltai, A. I., *Act. Phys. Ch.*, **27** 81, (1981), Liquid-crystals .5. Synthesis of n-(alkoxycarbonyl-n-pentyl)-3-betacholesteryl urethanes and their polymorphic and mesomorphic properties.
13. Agocs, P. M., Motika, G., Szabo, J. A., and Zoltai, A. I., *Advances in Liquid-Crystal Research and Applications*, p. 1039, Pergamon, 1981, Study of connection between liquid-crystalline properties and structures.
14. Aharoni, S. M., *Polym. Bull.*, **5** 95, (1981), Rigid-backbone polymers. 191. Apparent minimal viscosity: Molecular weight dependence of anisotropic poly-(n-hexylisocyanate) solutions.
15. Aharoni, S. M., *J. Pol. Sc. P. P.*, **19** 495, (1981), Rigid-bacbone polymers .23. Thermotropic and lyotropic trifluoroacetoxypopyl cellulose.
16. Aharoni, S. M., *J. Pol. Sc. P. P.*, **19** 281, (1981), Rigid-backbone polymers. 18. Strictly alternating rigid-flexible polyamides.
17. Aikawa, Y., Minami, N., and Sukigara, M., *Molec. Cryst.*, **70** 115, (1981), Effect of electrical field on the phase transition of rod-like polymer solution.
18. Aizawa, M., Yoshitake, J., and Suzuki, S., *Molec. Cryst.*, **70** 129, (1981), Chlorophyll—liquid-crystal electrodes for photoenergy conversion modeled on photosynthesis.
19. Akahane, T., and Tako, T., *Molec. Cryst.*, **70** 57, (1981), Order disorder transition in nematic liquid-crystalline mixtures.
20. Akiyama, R., Hasegwa, M., Fukuda, A., and Kuze, E., *Jap. J. A. Phy.*, **20** 2019, (1981), Experimental confirmation of characteristic angular dependence at low intensity levels in Rayleigh scattering from monodomain nematics.
21. Albertini, G., Dubini, B., Melone, S., and Ponzi-Bos., M. G., *Molec. Cryst.* **70** 169, (1981), Investigation of the cholesteryl oleate mesophases by X-ray diffraction.
22. Aliev, D. F., Zeinally, A. K., and Guseinov, A. N., *Molec. Cryst.*, **64** 325, (1981), The electrooptical properties of doped samples of smectic-C.
23. Aliev, D. F., Zeinally, A. K., and Chernova, N. I., *Sov. Ph. Cr. R.*, **26** 488, (1981), Electrooptical properties of ferroelectric liquid-crystals.
24. Aliev, D. F., Zeinally, A. K., and Guseinov, A. N., *Sov. Ph. Cr. R.*, **26** 491, (1981), Electrical conductivity and electrooptical effects in the smectic-C phase of a liquid-crystal.
25. Aliev, D. F., and Aslanov, M. A., *Sov. Ph. S. S. R.*, **23** 2160, (1981), Molecular dimensions and some properties of ferroelectric liquid-crystals.
26. Aliev, D. F., Chirkov, V. N., and Zeinally, A. K., *Sov. Ph. Cr. R.*, **26** 77, (1981), Induced electrohydrodynamic instability in A-smectics, and control of its characteristics.
27. Allender, D. W., Henderso., G. L., and Johnson, D. L., *Phys Rev. A.* **24** 1086, (1981), Landau theory of wall-induced phase nucleation and pretransitional birefringence at the isotropic to nematic transition.
28. Altschuh, J., Karstens, T., and Kuball, H. G., *J. Phys. E.*, **14** 43, (1981), A cuvette and the technique for circular dichroism mesurements of molecules oriented in a liquid-crystal matrix.
29. Amaral, L. Q., Figureuire, A. M., and Rossi, W., *Braz. J. Med.*, **14** 210, (1981), Study of lyotropic liquid-crystals.

30. Ambroset., R., Catalano, D., Veracini, C. A., Chidichi., G., and Longeri, M., *J. Mol. Struc.*, **73** 203, (1981), The r-alpha structure of isoxazole partially oriented in liquid-crystal solvents from proton spectra and C-13 satellites: Solvent-induced structure deformations.
31. Anderson, V. C., Craig, B. B., and Weiss, R. G., *J. Am. Chem. So.*, **103** 7169, (1981), Liquid-crystalline solvents as mechanistic probes. 6. Dynamic quenching of pyrene fluorescence by 5-alpha-cholestan-3-beta-yldimethylamine in the liquid-crystalline and isotropic phases of a cholesteric solvent.
32. Andreeva, V. M., Konevets, V. I., and Tager, A. A., *Vyso. Soed. B*, **23** 538, (1981), (RS) Study of light scattering of solutions of poly-p-phenylene-terephthalamide during the transition into liquid-crystalline state.
33. Antonyan, T. P., and Lisetski, L. N., *Zh. Fiz. Khim.*, **55** 1169, (1981), (RS) Spectrophotometric analysis of interaction of vapors of non-mesogenic substances with cholesteric solvents.
34. Antoun, S., Lenz, R. W., and Jin, J. I., *J. Pol. Sc. P. C.*, **19** 1901, (1981), Liquid-crystal polymers .4. Thermotropic polyesters with flexible spacers in the main chain.
35. Aoyama, H., Yamazaki, Y., Matsuura, N., Mada, H., and Kobayashi, S., *Molec. Cryst.*, **72** 127, (1981), Alignment of liquid-crystals on the stretched polymer films.
36. April, E. W., *Biophys. J.*, **33** 27, (1981), Osmotic contributions to the stability of the A-band liquid-crystal.
37. Arakelyan, S. M., Arushany., L. E., Chilinga., Y. S., *Sov. Phys. Je. R.*, **53** 607, (1981), Fluctuations in a nematic liquid-crystal in a light-scattering experiment: Correlations at the phase transition to isotropic liquid.
38. Arakelyan, S. M., Eritsyan, O. S., Karayan, A. S., and Chilinga., Y. S., *Opt. Spektro*, **50** 550, (1981), Light transmission through a colesteric liquid-crystal in a three-layer plate.
39. Arakelyan, S. M., *B. Am. Phys. S.*, **26** 274, (1981), New experimental results on optical second harmonic generation in nematic liquid-crystals.
40. Arakelyan, S. M., Grigoryan, G. L., Nersisyan, S. T., and Chilinga., Y. S., *Sov. Ph. Je. R.* **53** 977, (1981), Absence of center of symmetry in nematic liquid-crystals: Manifestation in second optical harmonic generation experiments.
41. Arakelyan, S. M., Karayan, A. S., and Chilinga., Y. S., *Opt. Spektro*, **50** 527, (1981), Cholesteric liquid-crystal Fabry-Perot interferometer.
42. Arakelyan, S. M., Chilinga., Y. S., Grigoryan, G. L., Lyakov, G. A., Nersisyan, S. T., and Svirko, Y. P., *Molec. Cryst.*, **71** 137, (1981), Second harmonic generation in nematic liquid-crystals: Effect of molecular symmetry, non-linear susceptibility and phase-matching.
43. Araya, K., and Matsunaga, Y. *Molec. Cryst.*, **67** 153, (1981), Mesophases induced by molecular complexing.
44. Araya, K., and Matsunaga, Y., *B. Chem. S. Jap.*, **54** 2430, (1981), Liquid-crystal formation in binary-systems .3. Effect of the central double-bond linkage on the induction of nematic liquid-crystals.
45. Arendt, P., Koswig, H. D., Reich, P., and Pilz, W., *Advances in Liquid-Crystal Research and Applications*, p. 341, Pergamon, 1981, Raman evidences for the existence of three solid modifications in MBBA.
46. Armitage, D. *J. Appl. Phys.*, **52** 1294, (1981), Thermal properties and heat flow in the laser addressed liquid-crystal display.
47. Armitage, D., *J. Appl. Phys.*, **52** 4843, (1981), Numerical solution of heat flow in the laser addressed liquid-crystal display.
48. Arumungam, S., Kunwar, A. C., and Khetrapa. C. L., *Omr. Org. Mag.*, **17** 257, (1981), Moleuclar structure and the indirect spin-spin coupling constants in azulene: A proton NMR-study in the nematic phase.

49. Arutyunyan, N. V., Daugvila, Y. Y., Ostrovski, B. I., Sonin, A. S., Sorkin, E. L., Strukov, B. A., and Taraskin, S. A., *Sov. Ph. S. S. R.*, **23** 802, (1981), Specific heat anomalies at smectic-C smectic-A and smectic-A nematic phase transitions in liquid-crystals.
50. Asada, T., Toda, K., and Onogi, S., *Molec. Cryst.*, **68** 231, (1981), Deformation and structural re-formation of lyotropic cholesteric liquid-crystal of hydroxypropyl cellulose + water system.
51. Asher, S. A., Stearns, R., Urabe, T., and Pershan, P. S., *Molec. Cryst.*, **63** 193, (1981), Raman and X-ray studies of single crystals of dipalmitoylphosphatidylcholine.
52. Aspler, J. S., and Gray, D. G., *Macromolec.*, **14** 1546, (1981), Mixing of water with (hydroxypropyl) cellulose liquid-crystalline mesophases.
53. Ast, D. G., *IEEE Device*, **28** 1257, (1981), Amorphous silicon-FET with Schottky contacts for LCD switches.
54. Aszodi, G., Szabon, J., Janossy, I., and Szekely, V., *Sol. St. Elec.*, **24** 1127, (1981), High-resolution thermal mapping of microcircuits using nematic liquid-crystals.
55. Athale, R. A., and Lee, S. H., *Appl. Optics*, **20** 1424, (1981), Bistability and thresholding by a new photoconductor twisted-nematic liquid-crystal device with optical feedback.
56. Aubourg, P., Huignard, J. P., Hareng, M., and McMullen, R. A., *IEEE J. Q. El.*, **17** 162, (1981), Liquid-crystal light valve using bulk monocrystalline $\text{Bi}_{12}\text{SiO}_{20}$ as the photoconductive material.
57. Auguie, D., Oberlin, M., Oberlin, A., Hyvernard, P., *Carbon*, **19** 277, (1981), Formation of thin mesophase layers at the interface between filler and binder in prebaked anodes: Effect of mixing on mesophase.
58. Auvray, L., *Physique*, **42** 79, (1981), (FR) Solutions of rigid macromolecules: Wall and confinement effects; orientation by flow.
59. Averyanov, E. M., and Shabanov, V. F., *Sov. Ph. Cr. R.*, **26** 96, (1981), Structural order and molecular polarizability of uniaxial liquid-crystals.
60. Averyanov, E. M., Zhuikov, V. A., and Adomenas, P., *Sov. Ph. Je. R.*, **54** 106, (1981), Mesogenic-molecule conformation change induced by phase transitions in uniaxial liquid-crystals.
61. Averyanov, E. M., *Sov. Ph. Cr. R.*, **26** 381 (1981), Structure and optical anisotropy of mixed liquid-crystals.
62. Averyanov, E. M., and Shabanov, V. F., *Sov. Ph. S. S. R.*, **23** 1120, (1981), Fluctuations of the order parameter in the nematic phase of a liquid-crystal.
63. Averyanov, E. M., Zhuikov, V. A., and Adomenas P., *JETP Letter*, **33** 248, (1981), Conformational change induced in mesomolecules by smectic-A nematic isotropic liquid phase transitions.
64. Azarov, A. D., Koval, S. S., Malkov, A. V., Mitrofan, V. V., and Trapeznii, M. B., *Instr. Exp. R.*, **24** 489, (1981), Liquid-crystal device for optical radiation control.
65. Babeau, A., Tinh, N. H., Gasparoux, H., Polycarpe, C., Torreilles, E., and Giral, L., *Molec. Cryst.*, **72** 171, (1981), Mesomorphic properties of di-(4-alkoxyphenyl), and di-(4-alkoxyloxyphenyl) tetrathiafulvalenes.
66. Bach, D., and Sela, B., *Biochem. Phar.*, **30** 1777, (1981), Thermotropic properties of calf-brain lipids interacting with drugs .2.
67. Bacon, W. E., *Molec. Cryst.*, **67** 101, (1981), Hydrolysis reactions in aqueous lamellar liquid-crystalline media.
68. Bader, M., and Martinoty, P., *Molec. Cryst.*, **76** 269, (1981), Birefringence induced by ultrasonic waves in the isotropic phase of PCB.
69. Bahadur, B., Sarna, R. K., and Bhide, V. G., *Molec. Cryst.*, **75** 121, (1981), Guest-host interaction of pleochroic dyes in liquid-crystal mixtures E8 and PCH-1132.

70. Bahadur, B., Sarna, R. K., and Bhide, V. G., *Molec. Cryst.*, **72** 139, (1981), Refractive indices, density and order parameter of some technologically important liquid-crystalline mixtures.
71. Baird, D. G., and Wilkes, G. L., *Abs. Pap. A. C. S.*, **182** 82, (1981), Thermotropic liquid-crystalline copolyesters .1. Rheological properties.
72. Baisa, D. F., Ovcharen., A. I., and Chesnoko., E. D., *Ukr. Fiz. Zh.*, **26** 1486, (1981), (RS) Magneto-hydrodynamic effect and orientation mobility in the nematic liquid-crystals.
73. Balandin, V. A., and Lagunov, A. S., *Sov. Ph. Ac. R.*, **27** 391, (1981), Anisotropic propagation of ultrasound in connection with polymorphic conversions of smectic liquid-crystals.
74. Ballet, F., Leong, Y. S., Wittmann, J. C., and Candau, F., *Molec. Cryst.*, **64** 305, (1981), Solubilization of immiscible liquids into mesophases formed from amphiphilic block copolymers.
75. Baraff, D. R., Long, J. R., MacLauri., B. K., Miner, C. J., and Streater, R. W., *IEEE Device*, **28** 736, (1981), The optimization of the metal-insulator-metal nonlinear devices for use in multiplexed liquid-crystal displays.
76. Baraff, D. R., Long, J. R., MacLauri., B. K., Miner, C. J., and Streater R. W., *P. Sid.*, **22** 310, (1981), The optimization of the metal-insulator-metal nonlinear devices for use in multiplexed liquid-crystal displays.
77. Barbarin, F., Boulet, E., Chausse, J. P., Fabre, C., and Germain, J. P., *Molec. Cryst.*, **69** 245, (1981), (FR) Paramagnetic resonance, electronic order and structure in CBOOA and BOBOA mesophases.
78. Barbarin, F., Chausse, J. P., Fabre, C., and Germain, J. P., *J. Physique*, **42** 1183, (1981), (FR) Structures and molecular dynamics in BOBOA; ESR-study.
79. Barbero, G., and Strigazzi, A., *Rev. Ro. Phys.*, **26** 191, (1981), Series and perturbation methods: Two mathematical approaches to a nematic director lines description.
80. Barbero, G., and Strigazzi, A., *Nuov. Cim. B*, **64** 101, (1981), On the surface behaviour of a homeotropic nematic liquid-crystal cell.
81. Barbero, G., and Strigazzi, A., *Molec. Cryst.*, **72** 211, (1981), On the modelling of a pretitled nematic cell.
82. Barbero, G., *Nuov. Cim. L.* **32** 60, (1981), On the critical angle of a NLC cell.
83. Barbero, G., and Strigazzi, A., *Fizika*, **13** 85, (1981). A method for measuring the elastic ratio K_{11}/K_{33} of a mesogene in nematic phase.
84. Barnik, M. I., Blinov, L. M., Dorozhkin, A. M., and Shtykov, N. M., *Sov. Ph. Je. R.*, **54** 935, (1981), Generation of second optical harmonic induced by an electric field in nematic and smectic liquid-crystals.
85. Barois, P., Coulon, C., and Prost, J., *J. Physique L.*, **42** 107, (1981), Escape from incommensurability: The two-dimensionally ordered SA antiphase.
86. Barratt, P. J., and Sloan, D. M., *J. Fluid Mec.*, **102** 389, (1981), A numerical investigation into thermal instabilities in homeotropic nematics heated from below.
87. Barratt, P. J., and Manley, J., *J. Phys. D*, **14** 1831, (1981), A calculation of shear rate thresholds for homogeneous and roll type instabilities in nematics subjected to simple shear-flow.
88. Bartolini, R., Simoni, F., and Scaramuzza, N., *Molec. Cryst.*, **70** 315, (1981), Preliminary results on the elastooptic behavior of a cholesteric liquid-crystal.
89. Bartolini, R., and Durand, G., *J. Physique*, **42** 1445, (1981), Permeative and hydroelastic flow in smectic-A liquid-crystals.
90. Bata, L., and Buka, A., *Molec. Cryst.*, **63** 307, (1981), Dielectric permittivity and relaxation phenomena in smectic phases.
91. Bata, L., Buka, A., Janossy, I., and Szabon, J., *Advances in Liquid-Crystal Research and Applications*, p. 209, Pergamon, 1981, Investigation of the physical parameters of NPOOB around the phase transitions.

92. Bata, L., and Buka, A., *Advances in Liquid-Crystal Research and Applications*, p. 251, Pergamon, 1981, Dielectric properties of nematic and smectic-A liquid-crystals.
93. Bata, L., Vizi, I., Szabon, J., and Kugler, S., *Advances in Liquid-Crystal Research and Applications*, p. 383, Pergamon, 1981, The motion of the long molecular axis around the director in nematics.
94. Bates, E. H., and Wolfe, J. F., *Advances in Liquid-Crystal Research and Applications*, p. 739, Pergamon, 1981, The elasticity of protein-lipid bilayer membranes and its physiological significance.
95. Baumeister, U., Hartung, H., Gdaniec, M., and Jaskolski, M., *Molec. Cryst.*, **69** 119, (1981), Crystal and molecular structure of the nematic compound 4-cyanophenyl-4-n-pentoxibenzoate.
96. Baur, G., *Molec. Cryst.*, **63** 45, (1981), The influence of material and device parameters on the optical characteristics of liquid-crystal displays.
97. Bechtold, W. E., and Goldstein, J. H., *Omr. Org. Mag.*, **16** 28, (1981), H-1-NMR spectra of benzofuran. Benzothiophene and benzoselenophene oriented in a lyotropic mesophase.
98. Bechtold, W. E., and Goldstein, J. H., *Chem. P. Lett.*, **83** 401, (1981), The structure of ethylene-oxide determined by liquid-crystal NMR including C-13 satellites.
99. Belotsky, E. D., Lev, B. I., and Tomchuk, P. M., *Ukr. Fiz. Zh.*, **26** 158, (1981), (RS) Charge screening in liquid-crystals.
100. Belotsky, E. D., Lev, B. I., and Tomchuk, P. M., *Ukr. Fiz. Zh.*, **26** 625, (1981), (RS) Effective mass and mobility of ions in a nematic liquid-crystal.
101. Belushkin, A. V., Natkaniec, I., Dolganov, V. K., and Sheka, E. F., *J. Physique*, **42** 34, (1981), Vibrational density of state of amorphous and crystalline liquid-crystal substances.
102. Belushkin, A. V., Dolganov, V. K., Natkaniec, I., and Sheka, E. F., *JETP Letter*, **33** 481, (1981), Vibrational-state spectrum in amorphous materials with a molecular structure.
103. Belyakov, V. A., and Dmitrienk., V. E., *Zh. Tekh. Fiz.*, **7** 19, (1981), Method for studying the texture of chiral liquid-crystals.
104. Belyayev, V. V., Belyayev, S. V., Chigrinov, V. G., Grebenkin, M. F., *Advances in Liquid-Crystal Research and Applications*, p. 673, Pergamon, 1981, Instability of the cholesteric planar texture in an electric field.
105. Belz, H. H., Jede, F., and Schrader, B., *Appl. Spectr.*, **35** 279, (1981), Infrared rotatory dispersion of induced cholesteric phases measured with a Fourier transform spectrophotometer.
106. Bena, R., Cuculescu, I., and Baci, I., *Rev. Ro. Phys.*, **26** 531, (1981), Two color filter achieved with a ternary mixture of liquid-crystals.
107. Benattar, J. J., Moussa, F., Lambert, M., and Germain, C., *J. Physique L.*, **42** 67, (1981), Two kinds of two-dimensional order: The SMF and SMI phases.
108. Benguigui, L., and Hardouin, F., *J. Physique L.*, **42** 111, (1981), Reentrant nematic and smectic-A phases: The dielectric approach.
109. Benguigui, L., and Hardouin, F., *J. Physique L.*, **42** 381, (1981), Anti-ferroelectric liquid-crystals.
110. Benguigui, L., *Ferroelectr.*, **39** 1259, (1981), Dipole ordering in liquid-crystal.
111. Benicewi., B. C., Johnson, J. F., and Shaw, M. T., *Molec. Cryst.*, **65** 111, (1981), Viscosity behavior of liquid-crystals.
112. Benicewi., B. C., Huang, J. S., and Johnson, J. F., *Molec. Cryst.*, **72** 9 (1981), Mesomorphic behavior of enamine-ketone compounds.
113. Beresfor., R., *Electronics*, **54** 39, (1981), Thermal cycling activates, freezes liquid-crystal display.
114. Beresnev, L. A., and Blinov, L. M., *Ferroelectr.*, **33** 129, (1981), Pyroelectric properties of liquid-crystals.
115. Beresnev, L. A., Baiklov, V. A., Blinov, L. M., Pozhidaev, E. P., Purvanet., G. V., *JETP Letter*, **33** 536, (1981), First non-helicoidal ferroelectric liquid-crystal.

116. Berker, A. N., and Walker, J. S., *B. Am. Phys. S.*, **26** 275, (1981), Antiferroelectricity. Dimerization and frustration in liquid-crystals with reentrant phase diagrams.
117. Berker, A. N., and Walker, J. S., *Phys. Rev. L.*, **47** 1469, (1981), Frustrated spin-gas model for doubly reentrant liquid-crystals.
118. Bernotas, R., and Adomenas, P., *Advances in Liquid-Crystal Research and Applications*, p. 1019, Pergamon, 1981, Chiral nematic tolans.
119. Berreman, D. W., and Heffner, W. R., *J. Appl. Phys.*, **52** 3032, (1981), New bistable liquid-crystal twist cell.
120. Bertolotti, M., Sbrolli, L., Scudieri, F., and Papa, T., *Lett. Nuov. C.*, **30** 171, (1981), Ultraviolet-pumped liquid-crystal dye-laser.
121. Bertolotti, M., Ferrari, A., and Scudieri, F., *Advances in Liquid-Crystal Research and Applications*, p. 221, Pergamon 1981, Interferometric Study of the N—SA phase transition in cylindrical structures.
122. Bertolotti, M., Sbrolli, L., and Scudiere, F., *Advances in Liquid-Crystal Research and Applications*, p. 433, Pergamon, 1981, Optical response times of deformed liquid-crystals.
123. Bhattach., B., Paul, S., and Paul, R., *Molec. Phys.*, **44** 1391, (1981), Order parameter and the orientational distribution function for 4-cyanophenyl-4-n-heptyl benzoate in the nematic phase.
124. Bhattach., B., Paul, R., and Paul, S., *Molec. Cryst.*, **65** 61, (1981), X-ray diffraction studies of (-)-2-methyl butyl p-(n-(p-methoxy benzylidene)amino) cinnamate.
125. Bhattach., S., Sarma, B. K., and Ketterso., J. B., *Phys. Rev. B* **23** 2397, (1981). Critical attenuation and dispersion of longitudinal ultrasound near a nematic smectic-A phase transition.
126. Bhattach., S., Cheng, B. Y., Sara, B. K., and Ketterso., J. B., *B. Am. Phys. S.* **26** 305, (1981), Ultrasonic anomaly near a smectic-A-smectic-A-smectic-C phase transition.
127. Bheda, J., Fellers, J. F., and White, J. L., *J. Appl. Poly.*, **26** 3955, (1981), Wet spinning of liquid-crystalline solutions of cellulose-acetate butyrate and cellulose triacetate.
128. Bhide, V. G., Agnihotri., S. A., and Chandra S., *Ind. J. P. A. Ph.*, **19** 821, (1981), Liquid-crystalline and solid crystalline polymorphism.
129. Billard, J., *Cr. Ac. S. II*, **292** 881, (1981), (FR) Twist of a reentrant cholesteric mesophase.
130. Billard, J., Dubois, J. C., Vauchier, C., and Levelut, A. M., *Molec. Cryst.*, **66** 115, (1981), Structures of the two discophases of rufigallol hexa-n-octanoate.
131. Billard, J., Blumstein, A., and Vilasagar, S., *Molec. Cryst.*, **72** 163, (1981), Phase diagrams of cholesteric and nematic thermotropic liquid-crystalline polymers.
132. Birgencau, R. J., Garland, C. W., Kasting, G. B., and Ocko, B. M., *Phys. Rev. A*, **24** 2624, (1981), Critical behavior near the nematic smectic-A transition in butyloxybenzylidene octylaniline (4O.8).
133. Biswas, M. K., and Majumdar, D. K., *Indian Ch.*, **58** 868, (1981), Kinetics of decarboxylation of malonic-acids and substituted malonic-acids in molten state and liquid-crystal solvent.
134. Bivas, I., and Petrov, A. G., *J. Theor. Bio.*, **88** 459, (1981), Flexoelectric and steric interactions between two bilayer lipid-membranes resulting from their curvature fluctuations.
135. Bivas, I., and Derzhanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 527, Pergamon, 1981, On the quadrupole mechanism of flexoelectricity.
136. Bivas, I., and Derzhanski, A., *Molec. Cryst.*, **74** 171, (1981), Statistical mechanical theory for hydrophobic core of lipid bilayer.

137. Bjorholm, T., Jacobsen, J. P., and Pedersen, C. T., *J. Mol. Struct.*, **75** 327, (1981), The r-alpha structure of 1,6,6,a-lambda-4-trithiapentalene and 1,6-dioxo-6a-lambda-4-triapentalene: A H-1-NMR study in the nematic phase including C-13-satellites in natural abundance.
138. Black, S. G., and Dixon, G. S., *Biochem.* **20** 6740, (1981), AC calorimetry of dimyristoylphosphatidylcholine multilayers: Hysteresis and annealing near the gel to liquid-crystal transition.
139. Bleha, W. P., and Robusto, P. F. *P. Soc. Photo.*, **317** 179 (1981), Optical-to-optical image conversion with the liquid-crystal light valve.
140. Blinc, R., *Advances in Liquid-Crystal Research and Applications*, p. 323, Pergamon, 1981, Orientational ordering in biaxial smectics.
141. Blinov, L. M., Kovshev, E. I., and Titov, V. V., *Molec. Cryst.*, **70** 267, (1981), Liquid-crystalline materials for electro-optical devices.
142. Blinov, L. M., Trufano, A. N., Chigrinov, V. G., Barnik, M. I., *Molec. Cryst.*, **74** 1, (1981), Electro-convective flows and domain instabilities in nematic liquid-crystals.
143. Blinov, L. M., *Advances in Liquid-Crystal Research and Applications*, p. 1083, Pergamon, 1981, Liquid-crystals: Physical properties and their possibilities in application.
144. Bloemen, E., and Garland, C. W., *J. Physique*, **42** 1299 (1981), Calorimetric investigation of phase transitions in butyloxybenzylidene heptylaniline (4O.7).
145. Blokhina, S. V., Maidache, G. G., Mineyev, L. I., and Klopov, V. I., *Zh. Org. Kh.*, **17** 151 (1981), (RS) Mesomorphic properties of homologs of p-acyloxy-p-nitroazoxybenzene series.
146. Blokhina, S. V., Bardukov, L. N., Maidache, G. G., Klopov, V. I., *Ivuz. Khim. K.*, **24** 292 (1981), (RS) Synthesis and physicochemical studies of mesomorphic p-nonyloxy-p-nitroazoxybenzene.
147. Blume, A., and Eibl, H., *Bioc. Biop. A*, **640** 609, (1981), A calorimetric study of the thermotropic behavior of 1,2-dipentadecylmethylidene phospholipids.
148. Blumstein, A., and Vilasagar, S., *Molec. Cryst.*, **72** 1, (1981), Nematic and cholesteric thermotropic azoxy polyesters with moderately low transition temperatures.
149. Bock, M., and Heppke, G., *Advances in Liquid-Crystal Research and Applications*, p. 131, Pergamon, 1981, Some physical properties of re-entrant nematics.
150. Bock, M., Goebblun., A., Heppke, G., Ratna, B. R., and Shashidhar, R., *Molec. Cryst.*, **72** 277, (1981), Pre-transitional effects in the electrical conductivity of re-entrant nematogens.
151. Bocquet, J. F., and Pommier, C., *J. Chromat.*, **205** 239, (1981), Liquid-crystals as stationary phases in gas-liquid-chromatography .3. Thermodynamic measurements on decane-dihexyloxyazoxybenzene and decane-diheptyloxybenzene systems.
152. Bocquet, J. F., and Pommier, C., *J. Chromat.*, **205** 251, (1981), Liquid-crystals as stationary phases in gas-liquid-chromatography .4. Thermodynamic measurements on benzene-dihexyloxyazoxybenzene and benzene-diheptyloxyazoxybenzene. Carbon tetrachloride-dihexyloxyazoxybenzene and carbon tetrachloride-diheptyloxyazoxybenzene systems.
153. Bocquet, J. F., and Pommier, C., *Molec. Cryst.*, **75** 39, (1981), Order parameter in nematic solution from GLC measurements.
154. Boden, N., Radley, K., and Holmes, M. C., *Molec. Phys.*, **42** 493, (1981), On the relationship between the micellar structure and the diaagnetic anisotropy of amphiphilic nematic mesophases.
155. Boden, N., Clark, L. D., Bushby, R. J., Emsley, J. W., Luckhurst, G. R., and Stockley, C. P., *Molec. Phys.*, **42** 565, (1981), A deuterium NMR-study of chain ordering in the liquid-crystals 4,4-di-n-heptyloxyazoxybenzene and 4-n-octyl-4-cyanobiphenyl.

156. Boero, J. F. R., and Wargon, J. A., *Carbon*, **19** 341, (1981), Study of the AlCl_3 catalytic activity on aromatic-hydrocarbons .2. Mesophase formation.
157. Bogatski., A. V., Galatina, A. I., and Novikova, N. S., *Molec. Cryst.*, **66** 241, (1981), Mesomorphogens .4. Liquid-crystal compounds based on thiocholesterol.
158. Bogatski., A. V., Galatina, A. I., Derkach, L. G., and Taubert, D., *Zh. Org. Kh.*, **17** 2320, (1981), (RS) The synthesis and properties of liquid-crystals .3. Cholesteryl esters of cis-isomeric unsaturated and trans-isometric unsaturated acids.
159. Bolomey, P. H., and Robert J., *Molec. Cryst.*, **73** 297, (1981), (FR) Periodic deformations induced by strong hydrodynamic agitation in a nematic subjected to current flow.
160. Bolotin, B. M., Zerjukina, L. S., Safina, R. U., *Advances in Liquid-Crystal Research and Applications*, p. 1015, Pergamon, 1981, Liquid-crystalline 4H-3, 1-benzoxazine-4-ones.
161. Bortolotti, A., Buttino, G., and Zini, G., *J. Appl. Phys.* **52** 4857, (1981), Electrohydrodynamic instabilities in nematic liquid-crystal layers aligned by polymeric sheets.
162. Borysewic., M. J., and Sliwinski, A., *Advances in Liquid-Crystal Research and Applications*, p. 413, Pergamon, 1981, Nematic liquid-crystals in crossed magnetic and ultrasonic fields.
163. Bourdon, L., Kleman, M., Lejcek, L., and Taupin D., *J. Physique*, **42** 261, (1981), On static helical instabilities of screw dislocations in a SMA phase and on their consequence on plasticity.
164. Boyd, A. S. F., Laurenso., G. S., and Rankin, D. W. H., *J. Mol. Struc.*, **71** 217, (1981), The molecular structure of difluorophosphine selenide determined using a combination of gas electron-diffraction and liquid-crystal NMR data.
165. Bradshaw, M. J., McDonnell, D. G., and Raynes, E. P., *Molec. Cryst.*, **70** 289, (1981), Physical properties of nematic materials containing different ring systems.
166. Bradshaw, M. J., and Raynes, E. P., *Molec. Cryst.*, **72** 35, (1981), Electric permittivities and elastic constants of the cyano bi-cyclohexanes (CCH).
167. Bradshaw, M. J., and Raynes, E. P., *Molec. Cryst.*, **72** 73, (1981), Pre-transitional effects in the electric permittivity of cyano nematics.
168. Bradshaw., P., *Elect. Des.*, **29** 177, (1981), Multiplexing makes liquid-crystal displays alphanumeric.
169. Brand, H., and Pleiner, H., *J. Physique L.*, **42** 327, (1981), Hydrodynamics of cholesteric liquid-crystals with impurities.
170. Brand, H., and Pleiner, H., *Phys. Rev. A*, **27** 2777, (1981), Hydrodynamics of biaxial discotics.
171. Brauer, B., and Koswig, H. D., *Advances in Liquid-Crystal Research and Applications*, p. 1115, Pergamon, 1981, Experimental investigation of twisted nematic phase with Fourier-analysis.
172. Brownsey, G. J., and Leadbett., A. J., *J. Physique L.*, **42** 135, (1981), Novel liquid-crystal structures in cyano bi-cyclohexanes.
173. Bruinsma, R., and Nelson, D. R. *Phys. Rev. B*, **23** 402, (1981), Bond orientational order in smectic liquid-crystals.
174. Bryan, R. F., and Hartley, P., *Molec. Cryst.*, **69** 47, (1981), An X-ray study of the p-n-alkoxycinnamic acids. 3. Crystal structures of four nematogenic acids having 2, 4, 6, and 8 alkyl chain carbon atoms.
175. Bualek, S., Patumteev., S., and Siripita., J., *Chem. P. Let.*, **79** 389, (1981), Odd-even effect in the helical twisting power of chiral molecules in induced cholesteric mesophases.
176. Buiko, A. S., and Tsykalo, A. L., *Advances in Liquid-Crystal Research and Applications*, p. 1301, Pergamon, 1981, Colour thermography of liquid-crystals in diagnosis of neoplasms of eye and eye socket.

177. Buka, A., and Bata, L., Dielectric permittivity and loss measurement on aligned nematic smectic-A and smectic-C phases of DOBHOP.
178. Buka, A., Bata, L., Pinter, K., and Szabon, J., *Molec. Cryst.*, **72** 285, (1981), Molecular relaxation in highly ordered orthogonal smectics SA, SB and SE phases.
179. Bunning, J. D., Faber, T. E. and Sherrell, P. L., *J. Physique*, **42** 1175, (1981), The Frank constants of nematic 5CB at atmospheric pressure.
180. Burima, V. K., and Yarosheva, A. I., *Sov. Ph. Cr. R.*, **26** 355, (1981), An X-ray investigation of the structural changes in cholesteric liquid-crystals during transition from the solid crystal to the liquid-crystalline state.
181. Burks, C., and Engelman, D. M., *Fed. Proc.*, **40** 1630, (1981), Conformation of cholesteryl myristate in liquid-crystalline mesophases.
182. Burks, C., and Engelman, D. M., *P. Nas. Biol.*, **78** 6867, (1981), Cholesteryl myristate conformation in liquid-crystalline mesophases determined by neutron-scattering.
183. Busico, V., Castaldo, D., and Vacetello, M., *Molec. Cryst.*, **78** 221, (1981), Thermal behavior and liquid-crystalline phases of a series of bis (n-alkylammonium) tetrabromozincates.
184. Buzano, C., Rasetti, M., and Valabrega, P. T., *Nov. Cim. B*, **61** 315, (1981), Raman-scattering: A solvable model.
185. Byrd, R. A., Smith, I. C. P., Tremblay, P. A., and Kates, M., *Can. J. Spec.*, **26** 84, (1981), The thermotropic behavior of dipalmitoyl phosphatidylsulfocholine as determined by H-2 and P-31 nuclear magnetic resonance.
186. Byron, D. J., Lacey, D., and Wilson, R. C., *Molec. Cryst.*, **75** 225, (1981), Properties of the liquid-crystals formed by the n-oxides of certain 4-(4-pyridyl)-phenyl 4-n-alkoxybenzoates: Comparison of the n-oxide and cyano-groups as mesogenic terminal substituents.
187. Byron, D. J., Lacey, D., and Wilson, R. C., *Molec. Cryst.* **73** 273, (1981), Steric effects and liquid-crystal behavior: Properties of the liquid-crystals formed by certain 2-fluoro- and 2-chloro-4-biphenyl 4-n-alkoxybenzoates: A comparison with analogous 4-(2-pyridyl)phenyl 4-n-alkoxybenzoates.
188. Byron, D. J., Lacey, D., and Wilson, R. C., *Molec. Cryst.*, **76** 253, (1981), Properties of the liquid-crystals formed by the n-oxides of certain 4-(4-n-alkoxyphenyl)pyridines: A comparison with analogous 4-n-alkoxy-4-cyano-biphenyls.
189. Cabane, B., *J. Physique*, **42** 847, (1981), Structure of the water/surfactant interface in micelles: an NMR-study of SDS micelles labelled with paramagnetic ions.
190. Cabiddu, S., Pedulli, G., F., and Zannoni, C., *Molec. Cryst.*, **75** 143, (1981), An ESR investigation of a new lyotropic lamellar phase from an amphiphile with a cationic head group.
191. Cagnon, M., and Durand, G., *J. Physique L.*, **42** 451, (1981), Newtonian shear creep in a smectic-B plastic crystal.
192. Cameron, D. G., Casal, H. L., Mantsch, H. H., Boulange, Y., and Smith, I. C. P., *Biophys. J.*, **35** 1, (1981), The thermotropic behavior of dipalmitoyl phosphatidylcholine bilayers: A Fourier-transform infrared study of specifically labeled lipids.
193. Carlsson, T., and Skarp, K., *Molec. Cryst.*, **78** 157, (1981), The stabilizing effect of an electric field on the shear flow of nematic liquid-crystals when α -3 greater than 0: Flow alignment regained.
194. Carr, N., Gray G. W., and Kelly, S. M., *Molec. Cryst.*, **66** 267, (1981), A comparison of the properties of some liquid crystal materials containing benzene, cyclohexane, and bicyclo(2.2.2)octane rings.
195. Casal, H. L., Cameron, D. G., Martin, A., and Mantsch, H. H., *P. Soc. Photo.*, **289** 196, (1981), Fourier-transform infrared (FTIR) studies of the lipid thermotropic mesomorphisms of acholeplasma-Laidlawii-3.

196. Castellano, J., *Molec. Cryst.*, **63** 265, (1981), Reliability and standards in the U.S.A.
197. Catalano, D., Veracini, C. A., Chidichi., G., and Longeri, M., *J. Chem. S. F.* **2**, **77** 2267, (1981), An investigation into the structure, chemical-shift anisotropies and j-couplings of tetrafluoro-1, 4-benzoquinone partially oriented in liquid-crystalline solutions.
198. Cesak, F., *Ind. Diam. Re.*, **41** 75, (1981), Liquid-crystal display units are diamond machined.
199. Cestaro, B., Cervato, G., Disilves., G., Sozzani, P., and Berra, B., *Ital. J. Bioc.*, **30** 429, (1981), Thermotropic behavior of dipalmitoylphosphatidyl-choleline-sulfatide liposomes.
200. Chan, W. K., and Webb, W. W., *Phys. Rev. L.*, **46** 39 (1981), Possible martensitic transformation in hydrated phospholipid liquid-crystals.
201. Chan, W. K. and Webb, W. W., *Phys. Rev. L.*, **46** 603, (1981), Determination of the permeation coefficient in a lyotropic smectic liquid-crystal by annealing elementary edge dislocations.
202. Chan, W. K., and Webb, W. W., *J. Physique*, **42** 1007, (1981), Observation of elementary edge dislocations in phospholipid multilayers and of their annealing as a determination of the permeation coefficient.
203. Chandra, S., and Jaiswal, A. K., *Ind. J. P. A. Ph.* **19** 213, (1981), Phase transition studies in cholesteryl acetate.
204. Chandrasek., S., *Current Sci.*, **50** 47, (1981), New liquid-crystalline states.
205. Chandrasek., S., *Molec. Cryst.*, **63** 171, (1981), Liquid-crystals of disc-like molecules.
206. Chandrasek., S., *Ind. J. P. A. Ph.*, **19** 769, (1981), A new class of thermotropic liquid-crystalline materials.
207. Chandrasek., S., Shashidhar, R., and Rao, K. V., *Advances in Liquid-Crystal Research and Applications*, p. 123, Pergamon, 1981, The re-entrant phenomenon in 4-n-octyloxy-4-cyanobiphenyl: A high pressure X-ray study of the smectic-A layer spacing.
208. Chao, N. M., Chu, K. C., and Shen, Y. R., *Molec. Cryst.*, **67** 261 (1981), Local refractive index measurement on a cholesteric liquid-crystal using the surface plasmon technique.
209. Chapoy, L. L., and Cotterill, R., *Molec. Cryst.*, **67** 25, (1981), The mesophase isotropic phase transition for a thermotropic liquid-crystal: The effect of shear-flow.
210. Chaure, A., *J. Mecanique*, **20** 333, (1981), (FR) Relaxation of a nematic liquid-crystal with weak anchorage at the walls.
211. Chen, N. R., Hark, S. K., and Ho, J. T., *Phys. Rev. A*, **24** 2843, (1981), Birefringence study of reentrant nematic liquid-crystal mixtures.
212. Chen, S. H., and Chou, L. S., *Molec. Cryst.*, **67** 221, (1981), Molecular twisting power of cholesteryl propionate, nonanoate and myristate.
213. Cheng, B. Y., Sarma, B. K., Calder, I. D., Bhattach., S., and Ketterso., J. B., *Phys. Rev. L.* **46** 828, (1981), Acoustic detection of a propagating shear wave in a smectic-A liquid-crystal.
214. Cheng, J., *J. Appl. Phys.*, **52** 724, (1981), Surface pinning of disclinations and the stability of bistable nematic storage displays.
215. Cheng, J., Thurston, R. N., and Berreman, D. W., *J. Appl. Phys.*, **52** 2756, (1981), Boundary-layer model of field effects in a bistable liquid-crystal geometry.
216. Cheng, J., and Thurston, R. N., *J. Appl. Phys.*, **52** 2766, (1981), The propagation of disclinations in bistable switching.
217. Cherkashi., R. M., Tishchenko, V., and Tolmachev, A. V., *Advances in Liquid-Crystal Research and Applications*, p. 1241, Pergamon, 1981, Liquid-crystalline substances for high-temperature thermoindicators.

218. Chidichi, G., Ducci, P., Lelj, F., and Longeri, M., *Molec. Phys.*, **43** 877, (1981), Use of the satellites of the C-13 and Te-125 obtained in the PMR spectra of nematic liquid-crystal mesophases: The complete R2 structure of the tellurophene.
219. Chilaya, G., *Rev. Phys. Ap.*, **16** 193, (1981), Induction of chirality in nematic phases.
220. Chilaya, G., and Oeosetski., L. N., *U.S.P. Fiz. Nau.*, **134** 279, (1981), (RS) Helical twisting in cholesteric mesophases.
221. Chilaya, G., Elashvili, Z. M., Lisetski, L. N., Piliashvi., T. S., and Vinokur, K. D., *Molec. Cryst.*, **74** 261, (1981), Induced cholesteric systems: Pitch dependence on temperature and concentration.
222. Chilaya, G., Elashvili, Z. M., Ivchenko, S. P., Lisetski, L. N., and Vinokur, K. D., *Advances in Liquid-Crystal Research and Applications*, p. 1191, Pergamon, 1981, Translational phase transition in systems nematic + optically active dopant: Unwinding of cholesteric helix.
223. Chilaya, G., Elashvili, Z. M., Piliashvi., T. S., Vinokur, K. D., and Lisetski, L. N., *Advances in Liquid-Crystal Research and Applications*, p. 1185, Pergamon, 1981, Influence of optically active dopant nature on pitch-temperature dependences in induced cholesteric mesophases.
224. Chistyako., I. G., Vistin, L. K., Rajabova, Z. B., and Chumakova, S. P., *Advances in Liquid-Crystal Research and Applications*, p. 493, Pergamon, 1981, Helicoid resonance and its unwinding in ferroelectric liquid-crystals.
225. Chou, L. S., and Letcher, S. V., *J. Physique*, **42** 587, (1981), Ultrasonic propagation in the liquid-crystal phases of p-alkoxybenzoic acids.
226. Choucher, M. D., and Patterson, D., *J. Chem. S. F.* **1** 77 1237, (1981), Enthalpies of solute transfer into nematic MBBA: Long-range disturbance of order.
227. Chrusciel, J., Wrobel, S., Janik, J. A., Janik, J. M., and Kresse, H., *Advances in Liquid-Crystal Research and Applications*, p. 279, Pergamon, 1981, Dielectric investigations of 4-n-pentylphenyl-4-n-heltyloxythiobenzoate (7S5).
228. Chrusciel, J., Richter, L., and Rachwalska, M., *Molec. Cryst.*, **75**, 155 (1981), Study of the phase situation in 4-n-pentylphenyl-4-n-heptyloxythiobenzoate (7S5).
229. Chu, G. Y., Zhang, Z. G., Lin, X., and Ye, P. X., *Chin. Phys.*, **1** 455, (1981), A negative lens effect induced by strong laser fields in liquid-crystals and its relaxation behavior.
230. Chu, K. S., and Moroi, D. S., *Molec. Cryst.*, **67** 109, (1981), Translational self-diffusion in the smetic-A phase.
231. Chwastia., S., Lewis, R. T., and Ruggiero, J. D., *Carbon*, **19** 357, (1981), Quantitative determination of mesophase content in pitch.
232. Ciferri, A., and Krigbaum, W. R., *Molec. Cryst.*, **69** 273, (1981), Self-assembly of natural polymers via liquid-crystalline phases.
233. Cladis, P. E., Guillon, D., Bouchet, F. R., and Finn, P. L., *Phys. Rev. A*, **23** 2594, (1981), Reentrant nematic transitions in cyano-octyloxybiphenyl (8OCB).
234. Cladis, P. E., *Molec. Cryst.*, **67** 177, (1981), The re-entrant nematic, enhanced smectic-A phases and molecular composition.
235. Cladis, P. E., Stamatoff, J., Guillon, D., Cross, M. C., Bilash, T., and Finn, P. L., *Advances in Liquid-Crystal Research and Applications*, p. 81, Pergamon, 1981, X-ray diffraction from a smectic-A liquid-crystal.
236. Cladis, P. E., and Goodby, J. W., *Molec. Cryst.*, **72** 307, (1981), Pressure study of a hexatic B and crystal B phase.
237. Clark, M. G., *Displays*, **2** 169, (1981), Progress and Prospects of complex liquid-crystal displays.
238. Clark, M. G., Saunders, F. C., Shanks, I. A., and Leslie, F. M., *Molec. Cryst.*, **70** 195, (1981), A study of flow alignment instability during rectilinear oscillatory shear of nematics.

239. Clark, M. G., *Microel. Rel.*, **21** 887, (1981), Dual-frequency addressing of liquid-crystal devices.
240. Clark, M. G., and Harrison, K. J., *SID. Dig.*, **12** 82, (1981), Multiplexing capability of dual-frequency addressed liquid-crystal devices.
241. Clecak, N. J., and Cox, R. J., *IBM Tech. D. B.*, **23** 5092, (1981), Dyes for guest-host liquid-crystal displays.
242. Clerc, F., *Displays*, **2** 341, (1981), Electro-optical limits of the electrically controlled birefringence effect in nematic liquid-crystals.
243. Cognard, J., *Molec. Cryst.*, **64** 331, (1981), The interfacial layer of inorganic solid surfaces and liquid-crystals; Implication on the anchoring energy.
244. Cognard, J., and Phan, T. H., *Molec. Cryst.*, **70** 1, (1981), (FR) Stable anthraquinone dyes of higher order parameter in liquid-crystal solution.
245. Cognard, J., and Phan, T. H., *Molec. Cryst.*, **68** 207, (1981), The use of azo dyes in guest-host displays.
246. Cohen, C., *Electronics*, **54** 65, (1981), Electrochromic display rivals liquid-crystal for low-power needs.
247. Cohen, S. D., Diuguid, C. A. R., Poirier, J. C., and Swadesh, J. K., *Molec. Cryst.*, **78** 135, (1981), Synthesis and thermal analysis of fourteen homologous mesogenic monoesters of biphenyl-4, 4-dicarboxylic acid.
248. Conio, G., Bianchi, E., Ciferri, A., and Tealdi, A., *Macromolec.*, **14** 1084, (1981), Composition and fractionation within conjugated isotropic and anisotropic phases of lyotropic liquid-crystals.
249. Constant, J., and Raynes, E. P., *Molec. Cryst.*, **70** 105, (1981), The properties of bicyclo(2.2.2)octane esters.
250. Copic, M., Zgonik, M., and Lavrencic, B. B., *J. Physique L.*, **42** 405, (1981), Brillouin-scattering in SA and SB phase of butyloxy-benzilidene octylaniline.
251. Coulon, C., and Prost, J., *J. Physique L.*, **42** 241, (1981), Simple example of fluctuation induced reentrant behavior.
252. Counsell, C. R., Emsley, J. W., and Luckhurst, G. R., *Molec. Phys.*, **43** 711, (1981), Conformational dependence of the ordering matrix of cyclopentene dissolved in a liquid-crystal.
253. Courtieu, J., Gounelle, Y., Jullien, J., Gonord, P., Kan, S. K., and Leperchec, P., *J. Mol. Struct.*, **72** 257, (1981), (FR) NMR in a nematic phase at 400 MHz: Study of vinylidenecyclopropane.
254. Courtieu, J., Alderman, D. W., and Grant, D. M., *J. Am. Chem. So.*, **103** 6783, (1981), Spinning near the magic angle: A means of obtaining first-order dipolar NMR-spectra of molecules dissolved in nematic liquid-crystals.
255. Cox, R. J., Johnson, J. F., Griffin, A. C., and Buckley, N. W., *Molec. Cryst.*, **69** 293, (1981), Phase diagrams of binary liquid-crystal mixtures.
256. Crossland, W. A., and Ayliffe, P. J., *SID. Dig.*, **12** 104, (1981), An evaluation of smectic dynamic scattering for high complexity displays with on-screen memory.
257. Crossland, W. A., and Ayliffe, P. J., *SID. Dig.*, **12** 112, (1981), A dyed phase-change liquid-crystal display over a MOSFET switching array.
258. Croucher, M. D., and Patterson, C., *J. chem. S. F. I.*, **77** 1237, (1981), Enthalpies of solute transfer into nematic MBBA: Long-range disturbance of order.
259. Croxton, C. A., *Molec. Cryst.*, **66** 223, (1981), A Landau-de-Gennes theory of the nematic liquid-crystal surface.
260. Cser, F., Nyitrai, K., Kocsis, I., and Hardy, G., *Eur. Polym. J.* **17** 865, (1981), Polymerization in liquid-crystals .9. Structural investigations of co-polymers containing p-methyl-p-acryloyloxy azoxybenzene and cholesterylvinyl succinate.
261. Cser, F., Nyitrai, K., Hardy, G., Menczel, J., and Varga, J., *J. Pol. Sc. Pc.*, **1981** 91, (1981), Mixing enthalpies of polymers with mesomorphic properties and mesogenic plasticizers.

262. Cser, F., Nyitrai, K., Hardy, G., Pocsik, L., and Tompa, K., *Magy. Kem. Fo.*, **87** 337, (1981). (HU) Polymerization in liquid-crystals .12. Investigation of the orientability of poly-(phenyl-para-acryloyloxy-benzoate) in magnetic field.
263. Cser, F., Nyitrai, K., and Hardy, G., *Advances in Liquid-Crystal Research and Applications*, p. 845, Pergamon, 1981, Nematic polymeric structures.
264. Csillag, L., Janossy, I., Kitayeva, V. F., Kroo, N., Soboleyev, N. N., and Zolotko, A. S., *Molec. Cryst.*, **78** 173, (1981), Laser-induced reorientation of nematic liquid-crystals.
265. Csillag, L., Janossy, I., Kitayeva, V. F., Kroo, N., and Soboleyev, N. N., *Rep. KFKI-81* 14, (1981), Influence of the finite size of the light spot on the laser induced reorientation of liquid-crystals.
266. Cuculescu, I., Enache, A., Baci, I., and Savin, O., *Molec. Cryst.*, **71** 87, (1981), The effect of rhodamine 6G on phase transitions in cholesteryl ester mixtures.
267. Currie, P. K., *Molec. Cryst.*, **73** 1, (1981), The first normal-stress difference in shear of nematic liquid-crystals.
268. Czarniec, K., and Samulski, E. T., *Molec. Cryst.*, **63** 205, (1981), Polypeptide liquid-crystals: A deuterium NMR-study.
269. Datta, P., Kaganow, G., and Levine, A. W., *J. Coll. I. Sc.*, **82** 167, (1981), Alignment and wetting properties of nematic liquid-crystals on plasma-polymerized films.
270. Davis, P. J., Fleming, B. D., Coolbear, K. P., and Keough, K. M. W., *Biochem.*, **20** 3633, (1981), Gel to liquid-crystalline transition temperatures of water dispersions of two pairs of positional isomers of unsaturated mixed-acid phosphatidylcholines.
271. Dehoff, R., Biggers, R., Brisbin, D., Mahmood, R., Gooden, C., and Johnson, D. L., *Phys. Rev. L.*, **47** 664, (1981), Nematic smectic-A smectic-C multicritical point.
272. Dejeu, W. H., *Molec. Cryst.*, **63** 83, (1981), Physical properties of liquid-crystalline materials in relation to their applications.
273. Dejeu, W. H., Leenhouts, F., and Postma, F., *Advances in Liquid-Crystal Research and Applications*, p. 499, Pergamon, 1981, Molecular dimensions and elastic constants of nematic liquid-crystals.
274. Deleers, M., Defriseq, F., Ruyscha, J. M., and Malaisse, W. J., *Res. Comm. Cp.*, **34** 423, (1981), Interaction of phorbol esters with lipid bilayers: Thermotropic changes in fluorescence polarization, phase-transition and calcium ionophoresis.
275. Deloche, B., and Samulski, E. T., *B. Am. Phys. S.*, **26** 327, (1981), Nematic order in strained elastomer via H-2 NMR.
276. Deloche, B., and Samulski, E. T., *Macromolec.*, **14** 575, (1981), Short-range nematic-like orientational order in strained elastomers: A deuterium magnetic-resonance study.
277. Demus, D., Pelzl, G., and Duschel, F., *Z. Chem.*, **21** 1, (1981), (GE) Liquid-crystals in electric fields.
278. Demus, D., and Zschke, H., *Molec. Cryst.*, **63** 129, (1981), Synthesis and properties of new liquid-crystalline materials.
279. Demus, D., Pelzl, G., Sharma, N. K., and Weissflog, W., *Molec. Cryst.*, **76** 241, (1981), EDA complexes in liquid-crystalline mixed phases.
280. Demus, D., Gloza, A., Hartung, H., Hauser, A., Rapthel, I., and Wiegelen, A., *Cryst. Res. T.*, **16** 1445, (1981), New thermotropic cubic mesophases.
281. Denprayoon, S., Limcharoen, P., Phaovibul, O., Tang, I. M., *Molec. Cryst.*, **69** 313, (1981), Optical and dilatometric properties of binary mixtures of PAA and PHAB.
282. Derfel, G., and Lipinski, A., *Advances in Liquid-Crystal Research and Applications*, p. 603, Pergamon, 1981, Charge carrier mobility measurements in nematic liquid-crystals.

283. Derossi, D., and Pario, P., *Advances in Liquid-Crystal Research and Applications*, p. 1283, Pergamon, 1981, Liquid-crystal devices in biomedical applications.
284. Derzhanski, A., and Zheliask., A., *Polym. Bull.*, **5** 667, (1981), NMR-study on phase-transitions in lyotropic liquid-crystals caused by hydrophobic additives.
285. Derzhanski, A., Petrov, A. G., and Bivas, I., *Advances in Liquid-Crystal Research and Applications*, p. 505, Pergamon, 1981, Molecular asymmetry, flexoelectricity and elasticity of nematics.
286. Derzhanski, A., and Petrov, A. G., *Advances in Liquid-Crystal Research and Applications*, p. 515, Pergamon, 1981, Gradient flexoelectric effect and longitudinal domains in nematics.
287. Derzhanski, A., and Zheliask., A., *Molec. Cryst.*, **64** 225, (1981), Viscosity investigation of DBS micelles.
288. Derzhanski, A., Petrov, A. G., and Pavloff, Y. V., *J. Physique L.*, **42** 119, (1981), Curvature induced conductive and displacement currents through lipid bilayers.
289. Desai, R., and Pratap, R., *Molec. Cryst.*, **75** 287, (1981), On the temperature dependence of the orientational order parameter in the nematic phase of cyanophenyl benzoates.
290. Destrade, C., Gasparoux, H., Babeau, A., Tinh, N. H., and Malthete, J., *Molec. Cryst.*, **67** 37, (1981), Truxene derivatives — a new family of disc-like liquid-crystals with an inverted nematic-columnar sequence.
291. Destrade, C., Vinet, F., Maelstaf, P., and Gasparoux, H., *Molec. Cryst.*, **68** 175, (1981), (FR) Fluoro liquid-crystals: Approach and prospective.
292. Destrade, C., Tinh, N. H., Gasparoux, H., Malthete, J., and Levelut, A. M., *Molec. Cryst.*, **71** 111, (1981), Disc-like mesogens: A classification.
293. Deutscher, H. J., Vorbrod, H. M., and Zaszke, H., *Z. Chem.*, **21** 9, (1981), (GE) Liquid-crystals with alicyclic and heteroalicyclic ring-systems.
294. Deutscher, H. J., Koerber, M., and Schubert, H., *Advances in Liquid-Crystal Research and Applications*, p. 1075, Pergamon, 1981, Low melting liquid-crystalline esters with alkylcyclohexane fragments.
295. DeVries, A., *Molec. Cryst.*, **63** 215, (1981), A structural classification of smectic liquid-crystals.
296. DeVries, A., *Advances in Liquid-Crystal Research and Applications*, p. 71, Pergamon, 1981, Structure and symmetry of smectic liquid-crystals.
297. Dhaens, J. P. M., *Displays*, **2** 315, (1981), LCDs for use at low temperatures.
298. Dhaens, J. P. M., *Displays*, **2** 360, (1981), Multiplexed LCD with integrated driver.
299. Diehl, P., and Aoia, F., *Omr. Org. Mag.*, **15** 326, (1981), The use of C-13 satellites in proton spectra for a study of the R-alpha structure and of the internal rotation of para-chlorotoluene partially oriented in nematic phases.
300. Diehl, P., Bjorholm, T., and Amrein, J., *Omr. Org. Mag.*, **15** 104, (1981), N-15 and C-13 satellites in proton spectra of nitromethane oriented in a lyotropic solvent.
301. Diele, S., Baumeister, U., and Demus D., *Z. Chem.*, **21** 27, (1981), (GE) X-ray investigations of a liquid-crystalline two-component system with formation of complexes.
302. Diele, S., Hartung, H., Ebeling, P., Vettors, D., Krueger, K., and Demus, D., *Advances in Liquid-Crystal Research and Applications*, p. 39, Pergamon, 1981, X-ray investigations of the terephthalylidene-bis-(4-n-alkyl-anilines) in the crystalline and liquid-crystalline modifications.
303. Diepquan., H., and Ueberrei., K., *Polym. J.*, **13** 623, (1981), Monolayers and multilayers of some liquid-crystal forming compounds.
304. Diogo, A. C., and Martins, A. F., *Molec. Cryst.*, **66** 133, (1981), Thermal behavior of the twist viscosity in a series of homologous nematic liquid-crystals.

305. Doi, M., *J. Pol. Sc. P. P.*, **19** 229, (1981), Molecular dynamics and rheological properties of concentrated solutions of rodlike polymers in isotropic and liquid-crystalline phases.
306. Dolganov, V. K., Novomlin., L. A., and Shmytko, I. M., *Sov. Ph. S. S. R.*, **23** 2170, (1981), X-ray studies of the disorder—crystal transition in frozen liquid-crystal state of MBBA
307. Dolganov, V. K., Kroo, N., Rosta, L., Sheka, E. F., *Phys. Stat. S. A.*, **63** 265, (1981), Ordered and disordered states of DOBHOP. Raman scattering and neutron diffraction.
308. Domenici, C., Faetti, S., and Fronzoni, L., *J. Physique L.*, **42** 347, (1981), Inversion effect of electrohydrodynamic vortices in the isotropic and anisotropic phase of thin nematic layers with two free surfaces.
309. Dong, R. Y., Lewis, J. S., Tomchuk, E., Wade, C. G., and Bock, E., *J. Chem. Phys.*, **74** 633, (1981), Deuterium NMR-study of molecular order and conformation in the nematic phase of para-azoxyanisole.
310. Dong, R. Y., *J. Chem. Phys.*, **75** 2621, (1981), NMR-study of alloys exhibiting a reentrant nematic phase.
311. Dong, R. Y., Lewis, J. S., Havelock, M. E., Tomchuk, E., and Bock, E., *J. Magn. Res.*, **54** 223, (1981), Molecular motions in smectic 4-n-pentyloxybenzylidene-di-4-n-heptylaniline: A nuclear-relaxation study.
312. Dong, R. Y., *Molec. Cryst.*, **72** 59, (1981), Rotational viscosity in the SA phase of a reentrant nematic liquid-crystal.
313. Dong, R. Y., *Molec. Cryst.*, **64** 205, (1981), Proton spin relaxation in a reentrant nematic liquid-crystal mixture.
314. Dontsova, L. I., Popov, E. S., Shilnikov, A. V., Bulatova, L. G., Tikhomiro., N. A., and Shuvalov, L. A., *Sov. Ph. Cr. R.*, **26** 430, (1981), Influence of temperature changes on the domain structure and surface energy density of domain walls in triglycine sulfate crystals.
315. Dorshow, R., Buzzaccar., F., Bunton, C. A., and Nicoli, D. F., *Phys. Rev. L.*, **47** 1336, (1981), Critical-like behavior observed for a five-component micro-emulsion.
316. Doucet, J., Denicolo, I., and Craievic., A., *J. Chem. Phys.*, **75** 1523, (1981), X-ray study of the rotator phase of the odd-numbered paraffins $C_{17}H_{36}$, $C_{19}H_{40}$, and $C_{21}H_{44}$.
317. Douy, A., and Gallot, B., *Macromol. Ch.*, **182** 265, (1981), A new structure for polystyrene-polybutadiene block co-polymers: A smectic-E type structure.
318. Drake, J. A. G., Jones, D. W., and Mason, C. R., *J. Che. Tech.*, **31** 535, (1981), Mesophase from electrode-binder coal-tar pitch: An appraisal of structural techniques.
319. Dreyfus, J. M., and Guyon, E., *J. Physique*, **42** 283, (1981), Convective instabilities in nematics caused by an elliptical shear.
320. Dreyfus, J. M., and Pieranski, P., *J. Physique*, **42** 459, (1981), Distortion waves and phase slippage in nematics.
321. Drozhzhi., A. N., Mikhailo., L. N., and Shoshin, V. N., *Sov. J. Opt. T.*, **48** 271, (1981), Information display system, utilizing the thermo-optic effect in liquid-crystals.
322. Drzymala, A., Cieslak, M., Krupa, K., and Szymanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 423, Pergamon, 1981, Ultrasonic relaxation in nematic liquid-crystals.
323. Dubault, A., Casagrande, C., and Veyssie, M., *Molec. Cryst.*, **72** 189, (1981), Flexible polymers in nematic solvents: Phase diagrams in dilute regime.
324. Dubini, B., Melone, S., Ponzi-Bos., M. G., and Rustichelli, F., *Advances in Liquid-Crystal Research and Applications*, p. 179, Pergamon, 1981, Microcalorimetric study of mesophase involving globular molecules (OPCTS).
325. Dubois, J. C., Hareng, M., Leberre, S., and Perbet, J. N., *Appl. Phys. L.*, **38** 11, (1981), Dielectric and hydrodynamic instabilities in certain classes of discotic mesophases.

326. Dunmur, D. A., and Tomes, A. E., *Molec. Cryst.*, **76** 231, (1981), The pretransitional Kerr-effect in 4-n-pentyl-4-cyanobiphenyl.
327. Dunn, S. G., and Lubensky, T. C., *J. Physique*, **42** 1201, (1981), Gauge-dependent critical properties of the nematic to smectic-A phase transition in the $1/n$ -expansion.
328. Dupre, D. B., *Polym. Eng. S.*, **21** 717, (1981), Pretransitional effects in the isotropic phase of a lyotropic polymer liquid-crystal.
329. Dupre, D. B., and Lin, F. M., *Molec. Cryst.*, **75** 217, (1981), Measurement of the anisotropic refractive indexes of polybenzylglutamate liquid-crystals: Molecular factors and dispersion.
330. Durbin, S. D., Arakelyan, S. M., and Shen, Y. R., *B. Am. Phys. S.*, **26** 274, (1981), Laser-induced director reorientation in a nematic liquid-crystal.
331. Durbin, S. D., Arakelyan, S. M., and Shen, Y. R., *Optics Lett.*, **6** 411, (1981), Laser-induced diffraction rings from a nematic liquid-crystal film.
332. Durbin, S. D., Arakelyan, S. M., and Shen, Y. R., *Phys. Rev. L.*, **47** 1411, (1981), Optical-field-induced birefringence and Freedericksz transition in a nematic liquid-crystal.
333. Dvolaitzky, M., and Billard, J., *Molec. Cryst.*, **64** 247, (1981), (FR) Stability range extension of a discotic phase of nonideal binary mixtures.
334. Dvolaitzky, M., Ober, R., Billard, J., Taupin, C., Charvolin, J., and Hendrikx, Y., *C. R. Ac. Sc. II*, **292** 45, (1981), The existence of "birefringent microemulsions."
335. Eber, N., and Janossy, I., *Molec. Cryst.*, **72** 233, (1981), An experiment on the thermomechanical coupling in cholesterics.
336. Eckert, T., and Fischer, W., *Colloid, P. S.*, **259** 553, (1981), (GE) Organic salts of flufenamic acid—A new class of materials for the formation of lyotropic mesophases in aqueous systems .1. Electron-microscopic representation.
337. Efron, U., Grinberg, J., Braatz, P. O., Little, M. J., Soffer, B. H., and Monahan, M. A., *P. Soc. Photo*, **317** 196, (1981), Silicon liquid-crystal light valves for optical data processing.
338. Efron, U., Grinberg, J., Braatz, P. O., and Little, M. J., *SID. Dig.*, **12** 142, (1981), A silicon photoconductor-based liquid-crystal light valve.
339. Eichel, H., Herold, W., Wiegel, D., and Mielke, H., *Monats. Vet.*, **36** 554 + , (1981), (GE) Use of thermography with liquid-crystals in veterinary medicine, with particular reference to udder examination.
340. Eicke, H. F., and Markovic, Z., *J. Coll. I. Sc.*, **79** 151, (1981), Temperature dependent coalescence in water-oil micro-emulsions and phase transitions to lyotropic mesophases.
341. Ekachai, A., DeVries, A., Neubert, M. E., and Spielberg, N., *J. Chem. Phys.*, **74** 4048, (1981), On the structure of the biaxial and uniaxial smectic-B-type phases of 14S5, and the apparently second-order phase transition between them.
342. Elashvili, Z. M., Piliashvi, T. S., Pavlenish, I. I., and Japaridze, K. G., *Advances in Liquid-Crystal Research and Applications*, p. 1179, Pergamon, 1981, Effect of optically active dopant chemical nature on spiral induction in NLC.
343. Elnokaly, M. A., Ford, L. D., Friberg, S. E., and Larsen, D. W., *J. Coll. I. Sc.*, **84** 228, (1981), The structure of lamellar lyotropic liquid-crystals from lecithin and alkanediols.
344. Emsley, J. W., Khoo, S. K., Lindon, J. C., and Luckhurst, G. R., *Chem. P. Lett.*, **77** 609, (1981), Motion of the director in a spinning nematic subject to a static magnetic-field.
345. Emsley, J. W., and Longeri, M., *Molec. Phys.*, **42** 315, (1981), The molecular structures of styrene and 4-bromostyrene and the deuterium quadrupole coupling constants of styrene-D8 determined from the proton and deuterium magnetic-resonance spectra of nematic solutions.
346. Emsley, J. W., Longeri, M., and Liguori, A., *J. Chem. S. P.*, **2**, **1981** 540, (1981), The conformation of 4-acetylpyridine determined from proton and deuterium nuclear magnetic-resonance spectra of a nematic phase.

347. Emsley, J. W., and Turner D. L., *J. Chem. S. F.* **2**, 77 1493, (1981), Simplification of deuterium spectra of liquid-crystals by the refocussing of proton-deuterium dipolar couplings.
348. Emsley, J. W., and Turner D. L., *Chem. P. Lett.*, **82** 447, (1981), Assignment of quadrupolar splittings in the deuterium NMR-spectrum of 4,4-dimethoxyazoxybenzene-D14 in the nematic phase by a two-dimensional auto-correlation experiment.
349. Emsley, J. W., Luckhurst, G. R., and Stockley, C. P., *Molec. Phys.*, **44** 565, (1981), The deuterium and proton-(deuterium) NMR-spectra of the partially deuteriated nematic liquid-crystal 4-n-pentyl-4-cyanobiphenyl.
350. Eringen, A. C., *Molec. Cryst.*, **75** 321, (1981), Nonlocal continuum theory of liquid-crystals.
351. Evans, M. W., *Acc. Chem. Re.*, **14** 253, (1981), Spectral studies of rotational diffusion.
352. Evans, M. W., and Grigolin., P., *Physica A*, **105** 31, (1981), Hydrodynamics and molecular motion: A phenomenological approach.
353. Faber, T. E., *P. Roy. Soc. A*, **375** 579, (1981), A continuum theory of disorder in nematic liquid-crystals .5. Anisotropy and order dependence of the Frank constants.
354. Fanelli, E., Poeti, G., and Braghetti, M., *Molec. Cryst.*, **64** 199, (1981), Homologous 4-acetyl-4-n-alkanoyloxy azobenzenes: Calorimetry.
355. Fatehi, M. T., Wasmundt, K. C., and Collins, S. A., *Appl. Optics*, **20** 2250, (1981), Optical logic gates using liquid-crystal light valve: Implementation and application example.
356. Feigelman, M., and Pokrovsky, V., *J. Physique*, **42** 125, (1981), Long-range order and diffraction of X-ray waves on multilayered crystalline films.
357. Feldkamp, G. E., and Handschy, M. A., *Phys. Lett. A*, **85** 359, (1981), Mean field theory of liquid-crystalline phases of disc-shaped molecules.
358. Feng, K. A., *Chin. Phys.*, **1** 61, (1981), The anomalous properties in viscosity near nematic smectic-A transition point of liquid-crystals.
359. Fernandez, J. R., and Dupre, D. B., *Molec. Cryst.*, **72** 67, (1981), Measurements of the bend and splay elastic constants of a polymer liquid-crystal by the Freedericksz distortion.
360. Ferrario, M., and Evans, M. W., *Physica A*, **108** 135, (1981), A theory of the dielectric loss in the aligned nematic mesophase.
361. Field, L. D., and Sternhell, S., *J. Am. Chem. So.*, **103** 738, (1981), The conformation of biphenyls in nematic liquid-crystalline solution: The relationship between the torsional angles and the size of the halogens in 2,6-dihalogenated derivatives.
362. Filas, R. W., and Labes, M. M., *J. Appl. Phys.*, **52** 3949, (1981), Homogenous-homeotropic fluorescent liquid-crystal cells.
363. Filyov, V. M., *Phys. Lett. A*, **84** 430, (1981), Absence of the small tricritical deviation from the mean-field approximation for the isotropic nematic phase transition.
364. Finkelma., H., and Kock, H. J., *Makro. Ch. R.C.*, **2** 317, (1981), Investigations on liquid-crystalline polysiloxanes .3. Liquid-crystalline elastomers: A new type of liquid-crystalline material.
365. Finn, P. L., and Cladis, P. E., *Molec. Cryst.*, **72** 107, (1981), The cholesteric isotropic blue phase triple point.
366. Firpo, J. L., Dupin, J. J., Albinet, G., Baret, J. F., and Caille, A., *J. Chem. Phys.*, **74** 2569, (1981), Model for the tricritical point of the chain-melting transition in a monomolecular layer of amphiphilic molecules.
367. Fisch, M. R., Sorensen, L. B., and Pershan, P. S., *Phys. Rev. L.*, **47** 43, (1981), Absolute measurement of the critical properties of second sound at the smectic-A to nematic phase transition in 8OCB.

368. Fisch, M. R., Sorensen, L. B., and Pershan, P. S., *Molec. Cryst.*, **67** 165, (1981), Observation of second sound using light scattering from a free-surface smectic-A.
369. Fisch, M. R., Sorensen, L. B., and Pershan, P. S., *IEEE Son. Ul.*, **28** 374, (1981), Low-frequency shear elastic properties of smectic-A liquid-crystals.
370. Fitzjarr., D. E., *J. Fluid Mec.*, **102** 85, (1981), An experimental investigation of convection in a fluid that exhibits phase change.
371. Flack, J. H., and Crooker, P. P., *Phys. Lett. A*, **82** 247, (1981), Polarization and pitch dependence of cholesteric blue-phase structures.
372. Flack, J. H., and Crooker, P. P., *Molec. Cryst.*, **69** 281, (1981), Angular dependence of selective reflection from the blue phase.
373. Flapper, S. D. P., Vertogen, G., and Leenhouts, F., *J. Physique*, **42** 1647, (1981), On the elastic constants of nematics: a comparison between experiments and molecular theory.
374. Flapper, S. D. P., and Vertogen, G., *J. Chem. Phys.*, **75** 3599, (1981), The equation of state for nematics revisited.
375. Fontell, K., *Molec. Cryst.*, **63** 59, (1981), Liquid-crystallinity in lipid water systems.
376. Forrest, B. J., Reeves, L. W., Vist, M. R., Roger, C., and Helene, M. E. M., *J. Am. Chem. So.*, **103** 690, (1981), A type-I aqueous cholesteric lyomesophase.
377. Forrest, B. J., and Reeves, L. W., *Chem. Rev.*, **81** 1, (1981), New lyotropic liquid-crystals composed of finite nonspherical micelles.
378. Forrest, B. M., and Reeves, L. W., *J. Am. Chem. So.*, **103** 1641, (1981), Type-I CM type-II DM transitions of lyotropic liquid-crystals.
379. Forrest, B. J., Reeves, L. W., and Robinson, C. J., *J. Phys. Chem.*, **85** 3244, (1981), Transitions in the sign of the diamagnetic anisotropy of a lyotropic mesophase without a phase change: Type-O disk micelle systems.
380. Frachowi., D., Bauman, D., and Betkowsk., I., *Photochem. P.*, **33** 779, (1981), Influence of electric fields on fluorescence quenching of chlorophyll-A in nematic liquid-crystal matrix.
381. Freidzon, Y. S., Shibaev, V. P., Pautov, V. D., Bronich, T. K., Shelukhi., G. D., Kasaikin, V. A., and Plate, N. A., *D. A. N. SSSR*, **256** 1435, (1981), (RS) Intramolecular conformational transfer of the coil-globule type in macromolecules of liquid-crystalline polymers.
382. Freidzon, Y. S., Shibaev, V. P., Kharitono., A. V., and Plate, N. A., *Advances in Liquid-Crystal Research and Applications*, p. 899, Pergamon, 1981, Conditions of formation of liquid-crystalline state in cholesterol-containing polymers.
383. Fromherz, P., *Chem. Phys. Li.*, **77** 460, (1981), Micelle structure: A surfactant block model.
384. Frosini, V., Levita, G., Lupinacci, D., and Magagnini, P. L., *Molec. Cryst.*, **66** 321, (1981), Mesophase formation in polymers with anisometric side-groups in relation to their chemical and stereochemical structure.
385. Fujimura, K., Kondo, S., and Takeda, M., *Molec. Cryst.*, **64** 145, (1981), Orientations of 1,2-dibromoethylene in various nematic liquid-crystals.
386. Fujiwara, H., and Sasaki, Y., *J. Chem. S. Ch.*, **1981** 35, (1981), Direct and indirect SN-H coupling-constants in MESNCL3 and ME3SNCL partially oriented in nematic phases determined by the dilution spinning method.
387. Fukuda, A., Akiyama, R., and Kondo, K., *Sol. S. Ph. Jap.*, **16** 141, (1981), Introduction to liquid-crystals.
388. Fukuda, I., Akatsuka, M., Uchida, T., and Wada, M., *Molec. Cryst.*, **68** 311, (1981), Two frequency addressing of a DTN-cell.
389. Fukui, M., and Matsunaga, Y., *B. Chem. S. Jap.*, **54** 3137, (1981), Liquid-crystal formation in binary-systems .4. Induction of smectic phases in mixtures of n-(p-nitrobenzylidene)-p-aminoazobenzene and various electron-donors of the type n-(p-substituted benzylidene)-p-aminoazobenzene.

390. Gagnon, R. J., *J. Opt. Soc.*, **71** 348, (1981), Liquid-crystal twist-cell optics.
391. Galanov, E. K., Leikin, M. V., Melnik, R. I., and Kostrov, I. D., *Sov. J. Opt. T.*, **48** 65, (1981), Polarization method of IR image conversion using cholesteric liquid-crystals.
392. Galerne, Y., *Phys. Rev. A*, **24** 2284, (1981), Interferometric measurement at a smectic-A smectic-C phase transition.
393. Galli, G., Chiellini, E., Ober, C., and Lenz, R. W., *Chim. Ind. M.*, **63** 777, (1981), (IT) Polyesters of glycolethers: synthesis and liquid-crystalline property.
394. Galli, G., Nieri, P., Ober, C., and Chiellini, E., *Chim. Ind. M.*, **63** 777, (1981), (IT) Aliphatic diacid polyesters with alpha-omega-dihydroxy derivatives capable of originating oriented mesophases.
395. Galstyan, S. R., Garibyan, O. V., Tabiryan, N. V., and Chilinga, Y. S., *JETP Letter*, **33** 437, (1981), Light-induced Fredericksz transition in a liquid-crystal.
396. Gane, P. A. C., Leadbett, A. J., and Wrighton, P. G., *Molec. Cryst.*, **66** 247, (1981), Structure and correlations in smectic B, F, and I-phases.
397. Gane, P. A. C., Leadbett, A. J., Benattar, J. J., Moussa, F., and Lambert, M., *Phys. Rev. A*, **24** 2694, (1981), Structural correlations in smectic-F and smectic-I phases.
398. Gane, P. A. C., and Leadbett, A. J., *Molec. Cryst.*, **78** 183, (1981), The crystal and molecular structure of n-(4-n octyloxybenzylidene)-4-butylaniline (8O.4) and the crystal smectic-G transition.
399. Garibyan, O. V., Kompane, I. N., Parfyonov, A. V., Pilipets, N. F., Shkunov, V. V., Sudarkin, A. N., Sukhov, A. V., Tabiryan, N. V., Vasiliev, A. A., and Zeldovich, B. Y., *Opt. Commun.*, **38** 67, (1981), Optical phase conjugation by microwatt power of reference waves via liquid-crystal light valve.
400. Garibyan, O. V., Zhdanov, B. V., Zheludev, N. I., Kovrigin, A. I., and Kuznetsov, V. I., *Sov. Ph. Cr. R.* **26** 446, (1981), Thermal nonlinear optical rotation in cholesteric liquid-crystals.
401. Garibyan, O. V., Zeldovich, B. Y., Krivoshe, V. Y., Philipets, N. F., Sukhov, A. V., Tabiryan, N. V., *Opt. Spektro.*, **51** 574, (1981), (RS) Gigantic optical nonlinearity of a nematic near the threshold of non-optical Fredericksz transition.
402. Gasparoux, H., *Molec. Cryst.*, **63** 231, (1981), Carbonaceous mesophase and disc-like nematic liquid-crystals.
403. Gasparoux, H., Jaunait, A., and Garrigou, C., *Rev. Chim. Mi.*, **18** 486, 1981, (FR) The carbon mesophase.
404. Gasparoux, H., Achard, M. F., Hardouin, F., and Sigaud, G., *C. R. Ac. S. II*, **293** 1029, (1981), (FR) Pressure temperature phase diagrams of liquid-crystals in disc-like materials.
405. Gavrilko, L. V., Kramaren, N. L., and Krivoshe, I. V., *Ukr. Fiz. Zh.*, **26** 1495, (1981), (RS) On the order parameter in a nematic liquid-crystal 4-n-pentyl-4-cyanobiphenyl.
406. Gazdag, R., Seyfried E., and Ligeti, Z., *Advances in Liquid-Crystal Research and Applications*, p. 1137, Pergamon, 1981, Tin-oxide layers for LCDs.
407. George, A. K., Vora, R. A., and Padmini, A. R. K., *Acustica*, **47** 149, (1981), Ultrasonic studies in polymorphic smectic liquid-crystals.
408. George, A. K., and Padmini, A. R. K., *Molec. Cryst.*, **65** 217, (1981), Ultrasonic studies in cholesteryl myristate cholesteryl propionate liquid-crystalline mixtures.
409. Gerber, P. R., *Appl. Phys.*, **25** 259, (1981), Calculated correlations between material parameters and electro-optical performance of twisted nematic displays.
410. Gerber, P. R., *Z. Natur. A.*, **36** 718, (1981), Voltage-induced cholesteric structure transformation in thin layers.
411. Gerber, P. R., *Appl. Phys. A*, **26** 139, (1981), Measurement of the rotational viscosity of nematic liquid-crystals.

412. Gevorkyan, E. V., *Zh. Fiz. Khim.*, **55** 696, (1981), (RS) Influence of a stream on displacive impedance of liquid-crystals.
413. Gevorkyan, E. V., *Sov. Phys. J.*, **24** 243, (1981), Behavior of nematic liquid-crystals in a varying magnetic field.
414. Gevorkyan, E. V., *Sov. Ph. Cr. R.*, **26** 387, (1981), Diffraction of X-rays in a continuum model of smectic liquid-crystals.
415. Gevorkyan, E. V., *Sov. Ph. Ac. R.*, **27** 44, (1981), Influence of a magnetic field on the shear impedance of liquid-crystals.
416. Gharadje., F., *Molec. Cryst.*, **68** 127, (1981), A positive contrast guest-host display using a liquid-crystal of negative dielectric anisotropy.
417. Ghosh, S. K., and Tettamanti, E., *Advances in Liquid-Crystal Research and Applications*, p. 199, Pergamon, 1981, Nature of the critical point of the isotropic nematic transition.
418. Ghosh, S. K., Tettamanti, E., and Amadesi, S., *Advances in Liquid-Crystal Research and Applications*, p. 309, Pergamon, 1981, Dipolar splittings in the homologous series of p-azoxyanisole.
419. Ginsburg, G. S., and Small, D. M., *Bioc. Biop. A.*, **664** 98, (1981), Physical properties of cholesteryl ester having 20 carbons or more.
420. Giroudgo., A. M., and Billard, J., *Molec. Cryst.*, **66** 147, (1981), (FR) A thermotropic organometallic discogen.
421. Gitin, A. V., Doroshki., A. A., Zelenova, L. A., and Tomilin, M. G., *Sov. J. Opt. T.*, **48** 102, (1981), Liquid-crystal exposure display for an electronic shutter reflex camera.
422. Giulio, I., Facello, C., Laudato, M. T., and Taddei, E., *Ital. J. Bioc.*, **30** 343, (1981), Thermotropic phase transitions at retinal rod outer segments membrane level.
423. Glogarova, M., *J. Physique*, **42** 1569, (1981), Anchoring effect of triglycine sulfate cleavage plane on MBBA liquid-crystal.
424. Glogarova, M., *Advances in Liquid-Crystal Research and Applications*, p. 1107, Pergamon, 1981, Anchoring of MBBA liquid-crystal on ferroelectric triglycine sulphate.
425. Gluck, P., *J. Phys. S. Jap.*, **50** 2129, (1981), Note on premelting in liquid-crystals.
426. Goeb lwun., A., Heppke, G., and Hopf, R., *Z. Naturfo. A.*, **36** 213, (1981), (GE) Re-entrant nematic phase established for several homologous biaromatic liquid-crystals by investigation of binary mixed systems.
427. Goeb lwun., A., Heppke, G., and Hopf, R., *Z. Naturfo. A.*, **36** 1201, (1981), Miscibility studies indicating a low temperature smectic-A phase in biaromatic liquid-crystals with re-entrant behavior.
428. Goldfarb, D., Luz, Z., and Zimmerma., H., *J. Physique*, **42** 1303, (1981), A deuterium NMR-study of the discotic mesophase of hexa-hexyloxytriphenylene.
429. Goodby, J. W., *Molec. Cryst.*, **75** 179, (1981), Smectic polymorphism and molecular shape. The orthogonal phases.
430. Goodby, J. W., and Pindak, R., *Molec. Cryst.*, **75** 233, (1981), Characterization of the hexatic B and crystal B phases by optical microscopy.
431. Goodby, J. W., *Molec. Cryst.*, **72** 95, (1981), A compound exhibiting a crystal B to hexatic B phase change.
432. Goossens, W. J., *Phys. Lett. A.*, **85** 231, (1981), Permeation in cholesteric liquid-crystals.
433. Gorina, I. I., Sizova, N. L., Chistyako., I. G., Petrov, A. G., and Derzhanski, A., *Molec. Cryst.*, **66** 159, (1981), The observation of hydrodynamic instability in a cholesteric liquid-crystal layer having a free surface.
434. Gorina, I. I., Roubtsova, M. Y., Chistyako., I. G., Galatina, A. I., and Novikova, N. S., *Advances in Liquid-Crystal Research and Applications*, p. 1197, Pergamon, 1981, The effect of molecular nature of a variable cholesteric component on the selective reflection temperature shift in cholesteric mixtures.

435. Gotra, Z. Y., Dut̄chak, Y. I., Mikityuk, Z. M., and Fedyshin, M. I., *Sov. Ph. Cr. R.*, **26** 357, (1981), Submicrostructure of cholesteric-nematic mixtures.
436. Gottarel., G., Samori, B., Fuganti, C., and Grassell., P., *J. Am. Chem. So.*, **103** 471, (1981), Liquid-crystal characterization of compounds chiral by deuterium substitution.
437. Gottarel., G., Samori, B., Stremmen., C., and Torre, G., *Tetrahedron*, **37** 395, (1981), Induction of cholesteric mesophases in nematic liquid-crystals by some chiral aryl alkyl carbinols: A quantitative investigation.
438. Gough, S. R., *Molec. Cryst.*, **64** 269, (1981), Anomalous defect/impurity dominated dielectric behaviour of lauric acid in the solid phase.
439. Gourret, J. P., *B. Soc. Bot. A.*, **128** 55, (1981), (FR) Usefulness of the gon-iometric stage for the study of biological analogs of cholesteric liquid-crystals.
440. Grachev, V. T., Zaitsev, B. E., Itskovic., E. M., Pavluchen., A. I., Smirnova, N. I., Titov, V. V., Dyumaev, K. M., *Molec. Cryst.*, **65** 133, (1981), Spectroscopic and quantum-chemical study of structure of liquid-crystalline cyano-biphenyls and arylcyanopyridines.
441. Grasso, D., Abate, L., Fasone, S., Gandolfo, C., and Siracusa, G., *Thermoc. Act.*, **43** 107, (1981), Liquid-crystalline properties of some benzylidenaniline derivatives.
442. Grasso, D., Gandolfo, C., Abate, L., Buemi, G., and Fasone, S., *Thermoc. Act.*, **46** 71, (1981), Transition entropies and mesomorphic behavior of p-n-alkoxybenzyliden-p-ethoxyanilines.
443. Grasso, D., *Molec. Cryst.*, **78** 217, (1981), Evidence for a nematic phase and memory effect in p-methoxybenzylidene-p-propoxyaniline.
444. Gray, G. W., and Kelly, S. M., *J. Chem. S. P. 2*, **1981** 26, (1981), The synthesis of 1,4-disubstituted bicyclo(2.2.2)octanes exhibiting wide range enantiotropic nematic phases.
445. Gray, G. W., *Molec. Cryst.*, **63** 3, (1981), Comments on some recent develop-ments in the field of liquid-crystals.
446. Gray, G. W., and Kelly, S. M., *Angew. Chem.*, **20** 393, (1981), Phenyl-bicyclo(2.2.2)octane biphenylbicyclo(2.2.2)octane derivatives: Two novel classes of nematic liquid-crystals.
447. Gray, G. W., Hogg, C., and Lacey, D., *Molec. Cryst.*, **67** 1, (1981), The synthesis and liquid-crystal properties of some laterally fluorinated trans-cyclohexane-1-carboxylate and benzoate esters.
448. Gray, G. W., and Kelly, S. M., *Molec. Cryst.*, **75** 95, (1981), The liquid-crystal properties of 4-n-alkyl- and 4-n-alkoxy-phenyl 4-n-alkylbicyclo(2.2.2)octane-1-carboxylates.
449. Gray, G. W., Langley, N. A., and Toyne, K. J., *Molec. Cryst.*, **64** 239, (1981), Novel cubane mesogens.
450. Gray, G. W., *Molec. Cryst.*, **63** 1, (1981), Citation for Glenn Halstead Brown.
451. Gray, G. W., and Kelly, S. M., *Molec. Cryst.*, **75** 109, (1981), Laterally substituted 4-n-alkylphenyl-4-n-alkylbicyclo(2.2.2)octane-1-carboxylates.
452. Grebneva, V. S., Khodzhaev., V. L., Shiskina, M. V., Sitnov, A. A., Amerik, Y. B., and Konstanti., I. I., *Advances in Liquid-Crystal Research and Appli-cations*, p. 959, Pergamon, 1981, Liquid-crystalline behaviour of polymers on the basis of p-butyloxyphenyl p-hydroxybenzoate depending on the nature of the polymer main chain and length of the spacer group.
453. Grebovic., J., and Wunderli., B., *Molec. Cryst.*, **76** 287, (1981), The glass transition of p-alkyl-p-alkoxy-azoxybenzene mesophases.
454. Griffin, A. C., Buckley, N. W., Hughes, W. E., and Wertz, D. L., *Molec. Cryst.*, **64** 139, (1981), Effect of molecular structure on mesomorphism .11. A siamese twin liquid-crystal having two independently smectogenic conforma-tions.

455. Griffin, A. C., and Havens, S. J., *J. Pol. Sc. P. P.*, **19** 951, (1981), Mesogenic polymers .3. Thermal properties and synthesis of three homologous series of thermotropic liquid-crystalline backbone polyesters.
456. Griffin, A. C., and Britt, T. R., *J. Am. Chem. So.*, **103** 4957, (1981), Effect of molecular structure on mesomorphism .12. Flexible center siamese twin liquid-crystalline diesters: A prepolymer model.
457. Griffin, A. C., Buckley, N. W., Johnson, J. F., and Bertolin., G., *Molec. Cryst.*, **73** 35, (1981), Effect of molecular structure on mesomorphism .13. Calorimetry of smectic-A phase diagrams exhibiting enhancement.
458. Grinberg, J., Braatz, P. O., Efron, U., Goodwin, N. W., Little, M. J., Nash, G. G., and Flannery, D. L., *IEEE J. Q. El.*, **17** 148, (1981), CCD-driven liquid-crystal spatial light modulators.
459. Grinstein, G., and Pelcovit., R. A., *Phys. Rev. L.*, **47** 856, (1981), Anharmonic effects in bulk smectic liquid-crystals and other one-dimensional solids.
460. Grint, A., and Marsh, H., *Fuel*, **60** 513, (1981), Carbonization and liquid-crystal (mesophase) development .20. Co-carbonization of a high-volatile caking coal with several petroleum pitches.
461. Grint, A., and Marsh, H., *Fuel*, **60** 519, (1981), Carbonization and liquid-crystal (mesophase) development .21. Replacement of low-volatile caking coal by petroleum pitch in coal blends for metallurgical coke.
462. Grint, A., and Marsh, H., *Fuel*, **60** 1115, (1981), Carbonization of coal blends: Mesophase formation and coke properties.
463. Grosberg, A. Y., and Khokhlov, A. R., *Adv. Polym. S.*, **41** 53, (1981), Statistical theory of polymeric lyotropic liquid-crystals.
464. Gruler, H., *Act. Histoch.*, **1981** 55, (1981), Quantitative picture analysis of freeze-fracture electron-micrographs.
465. Gu, S. J., Saha, S. K., and Wong, G. K., *Molec. Cryst.*, **69** 287, (1981), Flexoelectric induced second-harmonic generation in a nematic liquid-crystal.
466. Gunning, W., Pasko, J. G., and Tracy, J., *P. Soc. Photo.*, **268** 190, (1981), A liquid-crystal tunable spectra filter: Visible and infrared operation.
467. Gupta, G. K., Arora, V. P., Agarwal, V. K., and Mansingh, A., *Molec. Cryst.*, **71** 77, (1981), Dielectric relaxation studies in OBT at low temperatures.
468. Gurova, I. N., Kapustina, O. A., and Lupanov, V. N., *Advances in Liquid-Crystal Research and Applications*, p. 395, Pergamon, 1981, Kinetics of acousto-optical effect in liquid-crystals.
469. Guyon, E., *Advances in Liquid-Crystal Research and Applications*, p. 533, Pergamon, 1981, Convective structures in nematic hydrodynamic instabilities.
470. Guyon, E., Clerc, J. P., Giraud, G., and Rousseny, J., *J. Physique*, **42** 1553, (1981), A network simulation of anisotropic percolation.
471. Hahn, B., Wendorff, J. H., Portugal, M., and Ringsdorf, H., *Colloid P. S.*, **259** 875, (1981), Structure and phase transitions of a liquid-crystalline polymer.
472. Haky, J. E., and Muschik, G. M., *J. Chromat.*, **214** 161, (1981), Evaluation of liquid-crystal smectic mesophases for gas-liquid-chromatographic separations.
473. Halle, B., and Wennerst., H., *J. Chem. Phys.*, **75** 1928, (1981), Interpretation of magnetic-resonance data from water nuclei in heterogeneous systems.
474. Handschy, M. A., and Clark, N. A., *B. Am. Phys. S.*, **26** 275, (1981), Domain walls in ferroelectric smectic-C crystals.
475. Hanmura, H., Kawakami, H., and Kaneko, E., *Displays*, **2** 178, (1981), Brightness uniformity in liquid-crystal television display.
476. Hansen, J., and Jacobsen, J. P., *Omr. Org. Mag.*, **15** 29, (1981), H-1 and P-31 NMR-spectra of the phenyl ester of dichlorophosphoric acid in a nematic phase.
477. Hardouin, F., Levelut, A. M., and Sigaud, G., *J. Physique*, **42** 71, (1981), Anomalies of periodicity in some liquid-crystalline cyano derivatives.
478. Hardouin, F., Sigaud, G., Tinh, N. H., and Achard, M. F., *J. Physique L.*, **42** 63, (1981), A fluid smectic-A antiphase in a pure nitro rod-like compound.

479. Hareng, M., Leberre, S., Hehlen, R., and Perbet, J. N., *SID Dig.*, **12** 106, (1981), Flat matrix-addressed smectic liquid-crystal display.
480. Hartshor., N. H., and Woodard, G. D., *Molec. Cryst.*, **64** 153, (1981), Meso-morphism in the system disodium chromoglycate (DSOG)-water.
481. Hashimoto, T., Ebisu, S., Inaba, N., and Kawai, H., *Polym. J.*, **13** 701, (1981), Supramolecular structure of polypeptides in concentrated solutions and films .2. Small-angle light-scattering from cholesteric mesophase.
482. Hashimoto, T., Inaba, N., Ebisu, S., and Kawai, H., *Polym. J.*, **13** 897, (1981), Supramolecular structure of polypeptides in concentrated solutions and films .3. Inhomogeneous twisting of cholesteric mesophase as clarified from multiple-order light-scattering maxima.
483. Hatta, A., *Molec. Cryst.*, **74** 195, (1981), Application of infrared ATR spectroscopy to liquid-crystals .5. Orientation of 5CB molecules in the boundary region of a twisted nematic cell and reorientation by a DC electric field.
484. Hatta, I., and Nakayama, T., *Molec. Cryst.*, **66** 97, (1981), Experimental evidence for a hyperscaling relation at a nematic to smectic-A phase transition.
485. Hauser, A., and Demus, D., *Cryst. Res. T.*, **16** 345, (1981), Kerr-effect studies of the isotropic smectic phase transition of liquid-crystalline 4-nitrophenyl 4-n-alkoxybenzoates.
486. Hauser, A., and Demus, D., *Z. Chem.*, **21** 305, (1981), (GE) Kerr-effect studies on the isotropic mesomorphic phase transitions of liquid-crystalline 4-n-alkoxybenzoic-acid-4-nitro-phenylester.
487. Hauser, A., Kresse, H., Pelzl, G., and Demus, D., *Cryst. Res. T.*, **16** 1055, (1981), Frequency dependence of the threshold voltage of the Freederickz effect in nematic and nematic re-entrant phases.
488. Haven, T., Armitage, D., and Saupe, A., *J. Chem. Phys.*, **75** 352, (1981), Bend and splay elastic constants and the rotational viscosity of nematic decyl-ammonium chloride and ammonium-chloride water mixtures.
489. Haven, T., Radley, K., and Saupe, A., *Molec. Cryst.*, **75** 87, (1981), Refractive index and deuterium resonance measurements on nematic decylammonium-chloride, ammoniumchloride water mixtures.
490. Hawkins, R. J., and April, E. W., *Molec. Cryst.*, **75** 211, (1981), X-ray measurements of the bulk modulus of the myofilament liquid-crystal in striated-muscle.
491. Hawkins, R. J., and April, E. W., *J. Gen. Phys.*, **78** 18, (1981), X-ray measurements of the bulk modulus of the myofilament liquid-crystal within crayfish long tonic muscle-fibers.
492. He, X. H., and Zhang, H. Y., *Molec. Cryst.*, **70** 87, (1981), The internal field parameters for liquid-crystals.
493. He, X. H., and Zhang, H. Y., *Molec. Cryst.*, **74** 189, (1981), The internal field parameters for liquid-crystals.
494. Hendriks, Y., and Charvolin, J., *J. Physique*, **42** 1427, (1981), Structural relations between lyotropic phases in the vicinity of the nematic phases.
495. Hentsch., R., Sillescu, H., and Spiess, H. W., *Polymer*, **22** 1516, (1981), Orientational distribution of polymer chains studied by H-2 NMR line-spapes.
496. Heppke, G., Marschal., H., Nurnberg, P., Oestereic., F., and Scherows., G., *Chem. Ber.*, **114** 2501, (1981), Synthesis of chiral azobenzenes and investigation of the cholesteric phases in nematic liquid-crystals induced by them.
497. Heppke, G., Hopf, R., Kohne, B., and Praefcke, K., *Advances in Liquid-Crystal Research and Applications*, p. 141, Pergamon, 1981, Homologous series of liquid-crystals with re-entrant nematic and two smectic-A phases.
498. Her, J., Rao, E. E., and Ho, J. T., *Phys. Rev. A*, **24** 3272, (1981), Behavior of lattice parameter in cholesteric blue phases.
499. Herino, R., *J. Chem. Phys.*, **74** 3016, (1981), Ionic transport in nematic liquid-crystals: A study of viscous and dielectric frictions.

500. Herino, R., *J. Appl. Phys.*, **52** 3690, (1981), Further investigations and comments on the dynamic scattering mode in nematic liquid-crystals.
501. Herold, W., and Wiegel, D., *Advances in Liquid-Crystal Research and Applications*, p. 1255, Pergamon, 1981, Problems of the photographic documentation of liquid-crystalline thermographs.
502. Herrmann, J., Quednau, J., and Schneider, G. M., *Molec. Cryst.*, **71** 249, (1981), Smectic polymorphism of some bis-(4,4-n-alkoxybenzylidene)-1,4-phenylene-diamines up to 3 kbar by differential thermal analysis (DTA) .2.
503. Herrmann, J., *Molec. Cryst.*, **72** 219, (1981), Optical microscopy at high pressure: P-T behaviour of 8OCB and CBOOA and their mixtures.
504. Hess, S., and Pardowitz, I., *Z. Naturfo. A.*, **36** 554, (1981), On the unified theory for nonequilibrium phenomena in the isotropic and nematic phases of a liquid-crystal: Spatially inhomogeneous alignment.
505. Heusch, R., *Macromol. Ch.*, **182** 589, (1981), (GE) Formation of crystalline, liquid-crystalline and liquid phases during the formation of hydrates of polyglycolethers with different lengths of polyglycolether chains.
506. Heuy, R., and Mohr, S. C., *Biopolymers*, **20** 2533, (1981), Condensed states of nucleic-acids .3. PSI (+) and PSI (-) conformational transitions of DNA induced by ethanol and salt.
507. Hibert, M., and Solladie, G., *Molec. Cryst.*, **64** 211, (1981), Helical twisting powers of steroidal molecules in aromatic nematic liquid-crystals.
508. Hida, K., *J. Phys. S. Jap.*, **50** 3869, (1981), A lattice model theory of re-entrant nematic smectic-A transitions.
509. Hilsun, C., *Displays*, **2** 279, (1981), Calculation of contrast in dyed phase-change liquid-crystal displays.
510. Hiltrop, K., and Stegemeyer, H., *Ber. Bun. Ges.*, **85** 582, (1981), On the orientation of liquid-crystals by monolayers of amphiphilic molecules.
511. Hinov, H. P., *J. Physique*, **42** 307, (1981), Formation of a smectic-A phase from a strongly deformed planar nematic liquid-crystal CBOOA.
512. Hinov, H. P., *Molec. Cryst.*, **74** 39, (1981), Penetration depth of surface forces into nematic layers.
513. Hinov, H. P., and Derzhanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 523, Pergamon, 1981, A bulk flexoelectric effect in a wedge-like nematic liquid-crystal layer caused by a radial transversal electric field.
514. Hirata, S., and Tako, T., *Jap. J. A. Phy. L*, **20** 459, (1981), Coherent oscillation of domains of nematic liquid-crystals in a DC electric field.
515. Hirata, S., Akahane, T., and Tako, T., *Molec. Cryst.*, **75** 47, (1981), New molecular alignment models of bubble domains and striped domains in cholesteric nematic mixtures.
516. Hirata, S., Matsuzak., I., Yanagita, A., and Tako, T., *J. Phys. S. Jap.*, **50** 3862, (1981), Successive transitions in cholesteric liquid-crystals.
517. Hirata, S., Akahane, T., and Tako, T., *Jap. J. A. Phy.*, **20** 2337, (1981), Coloring properties of cholesteric liquid-crystals with large pitch.
518. Hochapfel, A., Boidart, M., and Laurent M., *Molec. Cryst.*, **75** 201, (1981), Thermal stability in relation to hydrolysis of sodium decylsulfate in a solution with nematic lyotropic properties.
519. Hochapfel, A., Boidart, M., and Viovy, R., *C. R. Ac. S. II*, **293** 353, (1981), (FR) Behavior during capillary-flow of a lyotropic nematic solution.
520. Hola, O., *Act. Phy. Slov.*, **31** 349, (1981), Degree of order of some nematic liquid-crystals determined by electron paramagnetic resonance method.
521. Honciunc, M., Sofron, E., and Girlasu, D., *B. I. Po. Buc. C.*, **42** 15, (1981), Electrical properties and storage effect correlation in a binary cholesteric mixture.
522. Horn, R. G., Israelac., J. N., and Perez, E., *J. Physique*, **42** 39, (1981), Forces due to structure in a thin liquid-crystal film.

523. Hornreich, R. M., and Shtrikman, S., *Phys. Rev. Lett. A*, **82** 345, (1981), Optical selection rules and structures of cholesteric blue phases.
524. Hornreich, R. M., and Shtrikman, S., *Phys. Rev. A*, **24** 635, (1981), Theory of structure and properties of cholesteric blue phases.
525. Hornreich, R. M., and Shtrikman, S., *Phys. Lett. A*, **84** 20, (1981), Real space calculation of a defectless director structure for the cholesteric blue phase.
526. Hornreich, R. M., and Shtrikman, S., *J. Physique*, **42** 367, (1981), A body-centered cubic structure for the cholesteric blue phase. (Erratum.)
527. Hosino, M., Nakano, H., and Kimura, H., *J. Phys. S. Jap.*, **50** 1067, (1981), Pressure effect on nematic smectic-A transition in the hard rod system with an attractive interaction.
528. Hosokawa, M., Oguchi, K., Ikeda, M., Yazawa, S., and Endo, K., *SID Dig.*, **12** 114, (1981), Dichroic guest-host LC active matrix video display.
529. Huang, C. C., Viner, J. M., Pindak, R., and Goodby, J. W., *Phys. Rev. L*, **46** 1289, (1981), Heat capacity study of the transition from a stacked hexatic-B phase to a smectic-A phase.
530. Huang, J. S., and Lien, S. C., *Phys. Rev. L*, **47** 1917, (1981), Nature of a nematic smectic-A smectic-C multicritical point.
531. Huang, J. S., and Kim, M. W., *Phys. Rev. L*, **47** 1462, (1981), Critical behaviour of a microemulsion.
532. Hubbard, R. L., and Bos, P. J., *IEEE Device*, **28** 723, (1981), Optical-bounce removal and turnoff-time reduction in twisted-nematic displays.
533. Hubbard, R. L., and Bos, P. J., *P. SID*, **22** 297, (1981), Optical-bounce removal and turnoff-time reduction in twisted-nematic displays.
534. Hurd, J. A., and Clark, N. A., *B. Am. Phys. S.*, **26** 306, (1981), Light scattering by parabolic focal conic (PFC) arrays in smectic-A liquid-crystals.
535. Hyltin, T. M., *IEEE Cons. E.*, **27** 129, (1981), Using multiplexed liquid-crystal displays.
536. Ibrahim, I. H., and Haase, W., *Molec. Cryst.*, **66** 189, (1981), On the molecular polarizability of nematic liquid-crystals.
537. Imura, K., Koide, N., Ohta, R., and Takeda, M., *Makrom. Chem.*, **182** 2563, (1981), Synthesis of thermotropic liquid-crystalline polymers .1. Azoxy and azo type polyesters.
538. Imura, K., Koide, N., Tanabe, H., and Takeda, M., *Makrom. Chem.*, **182** 2569, (1981), Synthesis of thermotropic liquid-crystalline polymers .2. Polyurethanes.
539. Ilchishi., I. P., Kleopov, A. G., Tikhonov, E. A., and Shpak, M. T., *I.A.N. SSS Fiz.*, **45** 1376, (1981), (RS) Selective reflection in impure cholesteric liquid-crystal.
540. Imae, T., Ikeda, S., Yamashita, O., and Ashida, T., *Molec. Cryst.*, **65** 73, (1981), Formation of anisotropic phase of low-molecular-weight poly(G-benzyl-L-glutamate) in solution.
541. Imakita, J., *Displays*, **2** 331, (1981), A comparative market survey of liquid-crystal displays: The United States, Japan and Europe.
542. Inagaki, Y., Kondo, A., and Matsumur., K., *Molec. Cryst.*, **67** 69, (1981), Dependence of the electrically controlled birefringence on applied frequency in a nematic liquid-crystal.
543. Indenbom, V. L., and Loginov, E. B., *Sov. Ph. Cr. R.*, **26** 526, (1981), Phase transitions in liquid-crystals: Ordering and modulation of smectic layers.
544. Inoue, S., Takemoto, H., Yasunaga, T., and Toyoshima, Y., *Molec. Cryst.*, **69** 303, (1981), Studies on the phase transition in the single lamellar liposomes .1. Preparation of uniformly sized phosphatidylcholine liposomes in different molecular weight regions.
545. Ioffe, I. V., *Sov. Ph. Je. R.*, **53** 534, (1981), Theory of propagation of an electromagnetic or sound wave in cholesteric liquid-crystals.

546. Ioffe, I. V., and Eidelman, E. D., *Sov. Te. Ph. L.*, **7** 55, (1981), Anomalous convention in conductive cholesteric liquid-crystal.
547. Issaq, H. J., Janini, G. M., Fochland, B., Shipe, R., and Muschik, G. M., *Chromatogr.*, **14** 655, (1981), Chromatographic separation of benzo(A)pyrene isomers on nematic liquid-crystal GC and polymeric reversed phase HPLC phases.
548. Itakura, Y., Sugimura, A., and Tsutsumi, S., *Appl. Optics*, **20** 2819, (1981), Amplitude-modulated reticle constructed by a liquid-crystal cell array.
549. Ito, M., Fujimura, K., Kanamoto, T., Kondo, S., Tanaka, K., and Takeda, M., *Molec. Cryst.*, **69** (1981), Proton spin-spin relation time in MBBA.
550. Ivashchen., A. V., Kovshev, E. I., Lazareva, V. T., Prudnikov, E. K., Titov, V. V., Zverkova, T. I., Barnik, M. I., Yagupolsk., L. M., *Molec. Cryst.*, **67** 235, (1981), New mesogenic compounds with a large dielectric anisotropy.
551. Jacobs, S. D., *P. Soc. Photo.*, **307** 98, (1981), Liquid-crystals as large aperture waveplates and circular polarizers.
552. Jacobsen, E. A., and Swift, J., *Molec. Cryst.*, **78** 311, (1981), Hydrodynamics of biaxial nematic liquid-crystals.
553. Jacobsen, J. P., and Pedersen, E. J., *J. Magn. Res.*, **44** 101, (1981), H-1-NMR and H-2-NMR spectra of pyridine and pyridine-n-oxide in liquid-crystalline phase.
554. Jaehnig, F., *Molec. Cryst.*, **63** 157, (1981), The ordered-fluid transition in lipid bilayers.
555. Jaehnig, F., *Biophys. J.*, **36** 329, (1981), Critical effects from lipid-protein interaction in membranes .1. Theoretical description.
556. Jaehnig, F., *Biophys. J.*, **36** 347, (1981), Critical effects from lipid-protein interaction in membranes .2. Interpretation of experimental results.
557. James, C. J., and Heathcoc., J. F., *J. Chem. S. F. I.*, **77** 2857, (1981), Electron and optical microscopy study of the lamellar mesophase region of the water-sodium octanoate-decanol ternary system.
558. Janik, J. A., *Advances in Liquid-Crystal Research and Applications*, p. 371, Pergamon, 1981, Recent developments in the study of molecular dynamics in liquid-crystals.
559. Janossy, I., *J. Physique L*, **42** 41, (1981), Diffuso-mechanical coupling in cholesteric liquid-crystals.
560. Janossy, I., *Advances in Liquid-Crystal Research and Applications*, p. 625, Pergamon, 1981, Some flow properties of cholesterics.
561. Jenkins, J. C., and Jenkins, G. M., *Fuel*, **60** 883, (1981), Study of the extrusion of a typical pitch mesophase and the nature of the cokes derived therefrom.
562. Jerman, R. E., and Baird, D. J., *J. Rheol.*, **25** 275, (1981), Rheological properties of copolyester liquid-crystalline melts .1. Capillary rheometry.
563. Jian, W. L., Akahane, T., and Tako, T., *Molec. Cryst.*, **69** 3, (1981), Optical properties of oxidized cholesterol bilayer lipid membranes.
564. Johansso., L. B., Lindblom, G., and Nagvi, K. R., *J. Chem. Phys.*, **74** 3774, (1981), Fluorescence detected linear dichroism: A new method for studies of molecular orientation in uniaxial systems.
565. Johansso., L. B., Soderman, O., Fontell, K., and Lindblom, G., *J. Phys. Chem.*, **85** 3694, (1981), A magnetic field orientable lyotropic liquid-crystal: An ordering matrix in light spectroscopy.
566. Johansso., L. B., and Lindblom, G., *Biophys. J.*, **36** 735, (1981), Studies of chromophores in model membranes by polarized light absorption spectroscopy: The orientation and binding of tetracaine and procaine.
567. Jokisaar., J., Raisanen, K., and Vaananen, T., *J. Magn. Res.*, **42** 396, (1981), NMR-study of the R-alpha structures of 2-chlorothiophene and 2-bromo-thiophene partially oriented by nematic liquid-crystals.
568. Jokisaar., J., Kuonanoj., J., Pulkkinen, A., and Vaananen, T., *Molec. Phys.*, **44** 197, (1981), NMR-study of monofluorobenzene partially oriented in thermotropic liquid-crystals: The use of C-13 satellite in the H-1 and F-19 NMR-spectra.

569. Jokisaar., J., and Vaananen, T., *J. Magn. Res.*, **45** 379, (1981), The R-alpha structure of monobromobenzene partially oriented in a nematic liquid-crystal solvent: The use of C-13 satellites in the H-1-NMR-spectrum.
570. Jones, F., and Reeve, T. J., *Molec. Cryst.*, **78** 201, (1981), Photostability of dyes in liquid-crystalline media.
571. Joseph, E., Wilkes, G. L., and Baird, D. G., *Abs. Pap. A. C. S.*, **182** 84, (1981), Morphological-studies of liquid-crystalline copolymers based on polyethylene terephthalate and parahydroxy benzoic-acid.
572. Joshi, B. C., and Shah, J. K., *Couorage*, **28** 3, (1981), Liquid-crystals in textile printing.
573. Journeau., R., Laurent, M., and Viovy, R., *Opt. Commun.*, **38** 330, (1981), Light propagation in absorbing cholesterics and twisted nematics.
574. Kaluzny, J., *Jemna. Mech.*, **26** 57, (1981), (SL) Acousto-optical effect in liquid-crystals.
575. Kamiishi, Y., Kobayashi, S., and Iwayanagi, S., *Molec. Cryst.*, **67** 125, (1981), Calorimetric study of crystalline and liquid-crystalline polymorphism in the homologs of terephthal-bis-n-alkylaniline.
576. Kaneko, E., Hanmura, H., Kawakami, H., and Saito, S., *SID Dig.*, **12** 84, (1981), Pocket-sized liquid-crystal TV display.
577. Kanel, H., Litster, J. D., Melngail., J., and Smith, H. I., *Phys. Rev. A.*, **24** 2713, (1981), Alignment of nematic butoxybenzylidene octylaniline by surface-relief gratings.
578. Kanel, H., and Litster, J. D., *Phys. Rev. A*, **23** 3257, (1981), Light-scattering studie son the single-layer smectic p-butoxybenzylidene p-octylaniline.
579. Kapustin, A. P., *Zh Fiz. Khim.*, **55** 1556, (1981), (RS) Phase transitions in liquid-crystals.
580. Kapustin, A. P., *Sov. Ph. Cr. R.*, **26** 498, (1981), Experimental observations of mesophase growth in an electric field.
581. Kapustin, A. P., and Pikin, S. A., *JETP Letter*, **33** 316, (1981), Memory effect in nematic-smectic phase transition in a sample with an inhomogeneous temperature.
582. Kapustin, A. P., Demus, D., and Zeinalov, R. A., *Sov. Ph. Cr. R.*, **26** 358, (1981), Deformation of smectic phases.
583. Karabaev, M. K., Lagunov, A. S., Ergashev, D., and Khabibul., P. K., *High Temp. R.*, **19** 687, (1981), Orientational relaxation in nematic liquid-crystals at high temperatures and pressures.
584. Karakost., G., and Moroi, D. S., *Phys. Lett. A*, **87** 101, (1981), Pitch dependence of the self-diffusion coefficient for cholesteric liquid-crystals.
585. Karamyshe., L. A., Kovshev, E. I., Pavluchen., A. I., Roitman, K. V., Titov, V. V., Torgova, S. I., and Grebenkin, M. F., *Molec. Cryst.*, **67** 241, (1981), New heterocyclic liquid-crystalline compounds.
586. Karamyshe., L. A., Roitman, K. V., Torgova, S. I., and Kovshev, E. I., *Advances in Liquid-Crystal Research and Applications*, p. 997, Pergamon, 1981, Liquid-crystalline compounds containing hydrogenated six-membered heterocyclic rings.
587. Kasahara, K., Yanagisa., T., Sakai, K., Adachi, T., Inoue, K., Tsutsumi, T., and Hori, H., *IEEE Device*, **28** 744, (1981), A liquid-crystal display panel using an MOS array with gate-bus drivers.
588. Kasahara, K., Yanagisa., T., Sakai, K., Adachi, T., Inoue, K., Tsutsumi, T., and Hori, H., *P. SID*, **22** 318, (1981), A liquid-crystal display panel using an MOS array with gate-bus drivers.
589. Kasper, A. M., and Helkamp, G. M., *Biochem.*, **20** 146, (1981), Protein-catalyzed phospholipid exchange between gel and liquid-crystalline phospholipid vesicles.

590. Kats, E. I., *Sov. Ph. S. S. R.* **23** 1225, (1981), Thermoconvective instability in nematic liquid-crystals.
591. Kats, E. I., and Monastyrskii, M. I., *JETP Letter*, **34** 519, (1981), Phase transitions in discotic liquid-crystals
592. Kawakubo, T., Yanagita, A., and Kabashim., S., *J. Phys. S. Jap.*, **50** 1451, (1981), External noise effect on the onset of Williams domain in nematic liquid-crystals.
593. Kawamura, K., Okura, H., and Tsuzuku, T., *Carbon*, **19** 150, (1981), Magnetism of carbonaceous mesophase.
594. Kawamura, Y., Okano, K., and Iwayanagi, S., *Jap. J. A. Phys. L.*, **20** 309, (1981), Ultrasonic shear mechanical impedance of smectic-A liquid-crystals.
595. Kawamura, Y., Sakurai, I., Ikegami, A., and Iwayanagi, S., *Molec. Cryst.*, **67** 77, (1981), Magneto-orientation of phospholipids.
596. Kawamura, Y., *Oyo Buturi*, **50** 155, (1981), Sound wave propagation in liquid-crystals.
597. Kerllene., B., and Coche, A., *Molec. Cryst.*, **68** 47, (1981), Bubble domain in cholesteric liquid-crystals.
598. Kerllene., B., and Coche, A., *Molec. Cryst.*, **70** 95, (1981), New simple model of a liquid-crystal light valve.
599. Keyes, P. H., *Phys. Rev. A*, **23** 2075, (1981), Critique of the beyond-mean-field theory of the isotropic nematic transition.
600. Keyes, P. H., Nicastro, A. J., and McKinnon, E. M., *Molec. Cryst.*, **67** 59, (1981), Microscopic observations of the cholesteric blue phase in mixtures of varying pitch.
601. Khan, A., Rilfors, L., Wielsland., A., and Lindblom, G., *Eur. J. Bioch.*, **116** 215, (1981), The effect of cholesterol on the phase structure of glucolipids from acholeplasma-laidlawii membranes.
602. Khetrappa., C. L., *Orm. Org. Mag.*, **15** 238, (1981), NMR-spectra of tricyclic compounds oriented in the nematic phase: The spectrum of phenazine.
603. Khetrappa., C. L., and Kunwar, A. C., *Molec. Cryst.*, **72** 13, (1981), Average orientation of molecules dissolved in nematic liquid-crystals of opposite diamagnetic anisotropies.
604. Khetrappa., C. L., and Kunwar, A. C., *J. Molec. Struc.*, **74** 343, (1981), Proton NMR-spectra including C-13 satellites and Se-77 satellites in organoselenium compounds oriented in the nematic phase .1. The spectrum of 2,1,3-benzo-selenadiazole.
605. Khetrappa., C. L., and Becker, E. D., *J. Magn. Res.*, **43** 8, (1981), An NMR study of the structure and the internal rotation in phenylsilane.
606. Khokhlov, A. R., and Semenov, A. N., *Physica A*, **108** 546, (1981), Liquid-crystalline ordering in the solution of long persistent chains.
607. Khoo, I. C., *Appl. Phys. L.*, **38** 123, (1981), Degenerate four-wave mixing in the nematic phase of a liquid-crystal.
608. Khoo, I. C., *Phys. Rev. A*, **23** 2077, (1981), Optically induced molecular re-orientation and third-order non-linear optical processes in nematic liquid-crystals.
609. Khoo, I. C., Posstiff, R., and Zhuang, S. L., *IEEE J. Q. El.*, **17** 38, (1981), Non-linear optical diffraction and wave front conjugation in liquid-crystal film.
610. Khoo, I. C., Zhuang, S. L., and Shepard, S., *Appl. Phys. L.*, **39** 937, (1981), Self-focusing of a low-power CW laser beam via optically induced birefringence in a nematic liquid-crystal film.
611. Khoo, I. C., and Shepard, S., *J. Opt. Soc.*, **71** 1649, (1981), Self-focusing and bistable optical transmission in nematic liquid-crystal films.
612. Kim, Y. H., *J. Physique*, **42** 247, (1981), Helix-coil transitions of dilute polymers under a velocity gradient.

613. Kimura, H., Hosino, M., and Nakano, H., *Molec. Cryst.*, **74** 55, (1981), Molecular-statistical theory of the Frank elastic constants of liquid-crystals.
614. Kimura, H., and Nakano, H., *Molec. Cryst.*, **68** 289, (1981), Successive phase transitions in lipid membranes.
615. Kinashi, K., Takenaka, S., and Kusabayash., S., *Molec. Cryst.*, **67** 49, (1981), Synthesis and mesomorphic properties of new liquid-crystalline materials involving piperazine skeleton.
616. Kirov, N., Fontana, M. P., Cavatort., F., and Ratajcz., H., *Molec. Cryst.*, **75** 303, (1981), IR, FIR, Raman and thermodynamic investigations of p-n-alkoxybenzoic acids in their solid, mesomorphic and isotropic phases.
617. Kirsanov, E. A., Razumov, A. A., and Mushniko., Y. S., *Sov. Ph. Je. R.*, **54** 310, (1981), Threshold characteristics of an electroconvective flow in nematic substances.
618. Kirste, E., *Chem. P. Lett.*, **83** 465, (1981), ENDOR investigations of phenalenyl in polycrystalline durene and in liquid-crystals.
619. Kishnam., D., and Somashek., R., *Molec. Cryst.*, **65** 3, (1981), Mesomorphic behavior of dodecyl benzene sulfonic-acid and its sodium-salt.
620. Klein, M. B., Lackner, A. M., Myer, G. B., and Jain, R. K., *IEEE J. Q. El.*, **17** 162, (1981), Optical noise limiting and multistability using ED liquid-crystal devices.
621. Kleinert, H., *Phys. Lett. A*, **81** 141, (1981), Thermal expansion and Bragg reflexes in lattice textures of cholesteric liquid-crystals.
622. Kleinert, H., and Maki, K., *Fortschr. Ph.*, **29** 219, (1981), Lattice textures in cholesteric liquid-crystals.
623. Klose, G., Arnold, K., Gawrisch, K., and Volke, F., *Advances in Liquid-Crystal Research and Applications*, p. 787, Pergamon, 1981, Lyotropic mesophases studied by ³¹P-NMR.
624. Knepe, H., and Schneider, F., *Molec. Cryst.*, **65** 23, (1981), Determination of the viscosity coefficient of the liquid-crystal MBBA.
625. Knepe, H., Schneider, F., and Sharma, N. K., *Ber. Bun. Ges.*, **85** 784, (1981), A comparative study of the viscosity coefficients of some nematic liquid-crystals.
626. Kobinata, S., Nakajima, Y., Yoshida, H., and Maeda, S., *Molec. Cryst.*, **66** 67, (1981), The order parameters of some nematic liquid-crystals measured by the resonance Raman effect and its relevance to the nematic-isotropic phase transition.
627. Kodama, M., Kuwabara, M., and Seki, S., *Molec. Cryst.*, **64** 277, (1981), New finding of the glass transition phenomenon in surfactant gel phase: The binary system of water and dioctadecyldimethyl-ammonium chloride.
628. Koden, M., Yagyu, T., Takenaka, S., Terauchi, H., and Kusabayash., S., *Chem. Lett.*, **1980** 269, (1981), The effect of the alkyl chain-length on the liquid-crystalline properties of p-substituted cholesteryl 4-benzoylbenzoates.
629. Kohler, A. E., *Z. Chem.*, **21** 76, (1981), (GE) Anchoring energy and stiffness coefficient of nematic liquid-crystals on substrate surfaces.
630. Kohler, A. E., *Z. Chem.*, **21** 197, (1981), (GE) Temperature dependence of the molecular tilt angle in nematic layers on substrate surfaces.
631. Kohler, A. E., *Z. Chem.*, **21** 360, (1981), (GE) Texture changes at the structural transition planar to tilted in nematic liquid-crystals.
632. Kokado, N., Makino, S., Kasahara, K., Kori, H., Matsumot., S., Takeda, M., and Taguchi, S., *IEEE Cons. E.*, **27** 462, (1981), A pocketable liquid-crystal television receiver.
633. Kompanet., I. N., Parfenov, A. V., and Popov, Y. M., *IEEE J. Q. El.*, **17** 136, (1981), Liquid-crystal light valve.
634. Kondo, K., Kobayashi, S., Fukuda, A., and Kuze, E., *Jap. J. A. Phy.*, **20** 1773, (1981), Preparation of monodomain cells of ferroelectric liquid-crystals and their evaluation with an optical microscope.

635. Kondo, K., Fukuda, A., and Kuze, E., *Jap. J. A. Phys.*, **20** 1779, (1981), Causes for the appearance of fringes in cholesterics, Williams domains and chiral smectic-C liquid-crystals.
636. Kondo, K., Sato, Y., Takezoe, H., Fukuda, A., and Kuze, E., *Jap. J. A. Phys. L.*, **20** 871, (1981), Anomalous electric field dependence of helical pitches in ferro-electric SM C* at temperatures close to the phase transition to SM A.
637. Kooyman, R. P. H., Levine, Y. K., and Vanderme., B. W., *Chem. Phys.*, **60** 317, (1981), Measurement of second and fourth rank order parameters by fluorescence polarization experiments in a lipid-membrane system.
638. Kortan, A. R., Kanel, H., Birgeneau, R. J., and Litster, J. D., *Phys. Rev. L.*, **47** 1206, (1981), High-resolution X-ray-scattering study of the nematic smectic-A re-entrant nematic transitions in 80CB 60CB mixtures.
639. Koshida, N., *J. Appl. Phys.*, **52** 5534, (1981), Large-area quasihomotropic orientation of liquid-crystal and its application to guest-host positive display.
640. Kosmowski, B. B., Becker, M. E., Cremers, R. A., and Mlynski, D. A., *Molec. Cryst.*, **72** 17, (1981), Tilt bias angle measurement with improved sensitivity.
641. Kozelj, M., Rutar, V., Zupancic, I., Blinc, R., Arend, H., Kind, R., and Chapuis, G., *J. Chem. Phys.*, **74** 4123, (1981), C-13 NMR-study of the bilayer phase transitions in $(C_{10}H_{21}NH_3)_2 CuCl_4$.
642. Kozhevni., E. N., *Sov. Ph. Ac. R.*, **27** 297, (1981), Clearing of a nematic liquid-crystal film with free ends in a sound field.
643. Kozlowski., R. W., and Carr, E. F., *Molec. Cryst.*, **64** 299, (1981), Surface deformation and walls in the conduction regime of nematic liquid-crystals.
644. Kraus, G., Schierho., M., Deutscher, H. J., and Zschke, H., *Z. Chem.*, **21** 306, (1981), (GE) Isomeric separations on nematic liquid-crystal capillaries.
645. Kresheck, G. C., *Chem. Phys. L.*, **29** 69, (1981), Precipitous effect of dimyristoyl phosphatidylcholine on the reversible thermotropic phase separation of aqueous dimethylalkylphosphine oxide solutions.
646. Kresse, H., and Gajewska, B., *Phys. St. S. A*, **64** K161, (1981), Dielectric relaxation of the liquid-crystalline smectic-E phase.
647. Kresse, H., Sharma, N. K., and Weissflog, W., *Cryst. Res. T.*, **16** 101, (1981), Dielectric relations of nematic 4-n-heptylamino benzoic-acid in mixtures with 4-cyano benzoic-acid and 4-fluoro benzoic-acid.
648. Kresse, H., Keil, M., Vorbrodt, H. M., Zschke, H., and Demus, D., *Cryst. Res. T.*, **16** 725, (1981), Dielectric and electrooptic investigations in the nematic phase of 5-n-pentyl-2-(4-n-nonyloxyphenyl)-1,3-dioxane.
649. Kresse, H., Tschimeg, S., and Demus, D., *Z. Phys. Ch. L.*, **262** 612, (1981), (GE) Dielectric studies on multicomponent systems: The binary 4-methoxybenzoic acid-4-n-hexyloxy-phenylester, 4-bis(4-n-hexylbenzoic acid) ethylhydroquinon-ester system in nematic phase.
650. Kresse, H., Diele, S., Wiegeleben, A., Demus, D., and Gajewska, B., *Phys. St. S. A*, **67** K21, (1981), A new liquid-crystalline low-temperature phase.
651. Kresse, H., Selbmann, C., Demus, D., Buka, A., and Bata, L., *Cryst. Res. T.*, **16** 1439, (1981), Reorientation of the long molecular axis in smectic phases.
652. Kresse, H., and Talroze, R. V., *Makro. Ch. R. C.*, **2** 369, (1981), Dielectric investigations on a comb-like polymer with a liquid-crystal phase.
653. Kresse, H., and Moscicki, J. K., *Advances in Liquid-Crystal Research and Applications*, p. 287, Pergamon, 1981, A dielectric study of nematogen 4-n-hexyloxyphenyl 4-n-methoxybenzoate, $C_{10}O/OC_6$.
654. Krigbaum, W. R., Ciferri, A., Asrar, J., Toriumi, H., and Preston, J., *Molec. Cryst.*, **76** 79, (1981), A polyester forming a thermotropic cholesteric phase.
655. Krishnam., D., and Somashek., R., *Molec. Cryst.*, **75** 133, (1981), Orientational order in n-alkyl-p-(4-ethoxy-benzylidene amino)-alpha-methyl cinnamates.
656. Krishnam., D., and Somashek., R., *Molec. Cryst.*, **65** 3, (1981), Mesomorphic behaviour of dodecyl benzene sulfonic acid and its sodium salt.

657. Krueger, G. J., and Weiss, R., *J. Physique*, **42** 621, (1981), Self diffusion coefficients of TBBA.(Erratum.)
658. Krylova, I. V., and Shishkin, V. I., *Zh. iz. Khim.*, **55** 539, (1981), (RS) Exoemission from liquid-crystalline substances.
659. Kubo, K., *Molec. Cryst.*, **74** 71, (1981), Thermodynamic properties of poly(G-benzyl-L-glutamate) solutions over entire concentration range.
660. Kuczynsk., W., *Ber. Bun. Ges.*, **85** 234, (1981), Determination o elasticity and viscosity coefficients in a ferroelectric smectic-C liquid-crystal.
661. Kuhnel, A., Schiele, K., and Trimper, S., *Ann. Physik.*, **38** 334, (1981), (GE) Landau theory of the phase transition isotropic liquid to nematic in liquid-crystals.
662. Kumagai, M., Soda, G., and Chihara, H., *J. Magn. Res.*, **42** 28, (1981), Nuclear magnetic relaxation of nematic liquid crystals, N-(4-methoxybenzylidene)-4-n-butylaniline and n-(2-hydroxy-4-methoxybenzylidene)-4-n-butylaniline.
663. Kumar, S., *Phys. Rev. A*, **23** 3207, (1981), High-resolution X-ray measurements of the smectic phases of terephthal-bis-(4n)-alkylanilines.
664. Kurihara, K., Onuki, K., Toyoshima, Y., and Sukigara, M., *Molec. Cryst.*, **68** 69, (1981), Effect of the phase transition on the photochemical reactions in lipid bilayer membranes.
665. Kurik, M. V., Palyukh, M. B., and Shelyazh., S. V., *Sov. Ph. S. S. R.*, **23** 1356, (1981), Urbach rule for smectic liquid-crystals.
666. Kurik, M. V., and Lavrento., O. D., *JETP Letter*, **33** 528, (1981), Topological defects in cholesteric liquid-crystals.
667. Kurick, M. V., and Lavrento., O. D., *Molec. Cryst.*, **72** 239, (1981), Topological defects in cholesteric liquid-crystals.
668. Kuschel, F., Rettig, R., Pelzl, G., and Demus, D., *Cryst. Res. T.*, **16** 43, (1981), Refractive indexes of liquid-crystals: Measurement using the shearing method.
669. Kusnierz, J., Drzymala, A., Grossman, B., and Lipinski, A., *Advances in Liquid-Crystal Research and Applications*, p. 1277, Pergamon, 1981, The application of liquid-crystalline temperature indicators to medical diagnosis.
670. Kuss, E., *Molec. Cryst.*, **76** 199, (1981), PVT-data and Tait-equation for 4-trans-(4-alkyl)-cyclohexyl-benzonitriles.
671. Kuwahara, M., Yano, S., and Aoki, K., *Molec. Cryst.*, **74** 137, (1981), Note of electrodeposition of metal in electrochemical system containing nematogenic compound.
672. Kwon, Y. S., *Molec. Cryst.*, **65** 227, (1981), Transverse electric field effect in a cholesteric liquid-crystal.
673. Labrunie, G., *Displays*, **2** 301, (1981), LCD pocket TV developments in Japan.
674. Lachinov, A. N., Chuvyrov, A. N., and Sonin, A. S., *Sov. Ph. S. S. R.*, **23** 1678, (1981), Investigation of fluctuations in nematic liquid-crystals by the electroreflection method.
675. Lagunov, A. S., Nozdrev, V. F., and Pasechni., S. V., *Sov. Ph. Ac. R.*, **27** 304, (1981), Anisotropy of ultrasonic absorption in flowing nematic liquid-crystals.
676. Lalanne, J. R., Lemaire, B., Rouch, J., Vaucamps, C., and Proutier., A., *Molec. Cryst.*, **66** 1, (1981), Static and dynamic depolarized Rayleigh scattering of cyano biphenyl series in dilute solutions and intrinsic molecular even-odd effect in liquid crystals.
677. Larin, V. B., Komarov, V. S., and Ratko, A. I., *D. A. N. BSSR*, **25** 151, (1981), (RS) Liquid-crystal alignment on the oblique-sputtered copper and lithium-fluoride film surfaces.
678. Lasic, D. D., and Schara, M., *Per. Biol.*, **83** 163, (1981), EPR study of the coagel-gel phase transition in the potassium palmitate water lyotropic system.
679. Lauk, U., Skrabal, P., and Zollinge., H., *Helv. Chim. A.*, **64** 1847, (1981), Substituted 2-phenylnaphthalenes, a new class of nematic liquid-crystals: Preliminary communication.

680. Lazareva, V. T., Prudnikov, E. K., and Ivashchen., A. V., *Advances in Liquid-Crystal Research and Applications*, p. 1003, Pergamon, 1981, Synthesis and study of new liquid-crystal addends.
681. Leadbett., A. J., and Mazid, M. A., *Molec. Cryst.*, **65** 265, (1981), The crystal and molecular structure of n-(4-n-butyloxybenzylidene)-4-octylaniline (4O8) and the crystal smectic-B transition.
682. Leadbett., A. J., and Metha, A. I., *Molec. Cryst.*, **72** 51, (1981), Molecular packing in the nematic phase of cyano compounds with different ring systems.
683. Leberre, S., Hareng, M., Hehlen, R., and Perbet, J. N., *Displays*, **2** 349, (1981), Flat smectic liquid-crystal display panel.
684. Lecomber, P. G., Snell, A. J., Mackenzi., K. D., and Spear, W. E., *J. Physique*, **42** 423, (1981), Applications of a-Si field-effect transistors in liquid-crystal displays and in integrated logic circuits.
685. Lee, M. J., Wright, S. W., and Judge, C. P., *SID Dig.*, **12** 108, (1981), Stable thin-film transistors for liquid-crystal matrix displays.
686. Leenhouts, F., and Dekker, A. J., *J. Chem. Phys.*, **74** 1956, (1981), Elastic constants of nematic liquid-crystalline Schiffs bases.
687. Legrange, J. D., and Mochel, J. M., *Phys. Rev. A*, **23** 3215, (1981), High-resolution heat capacity studies near the nematic smectic-A transition.
688. Legusha, F. F., Slavin, A. N., and Khaustov, V. G., *Instr. Exp. R.*, **24** 1544, (1981), Instrument for visualizing ultrasound in air by means of a liquid-crystal film.
689. Leigh, I. D., McDonald, M. P., Wood, R. M., Tiddy, G. J. T., and Trevetha., M. A., *J. Chem. S. F. I*, **77** 2867, (1981), Structure of liquid-crystalline phases formed by sodium dodecyl-sulfate and water as determined by optical microscopy, X-ray-diffraction and nuclear magnetic-resonance spectroscopy.
690. Lekhtsie., E. N., Nesrullae., A. N., Sonin, A. S., and Stepanov, B. M., *Sov. Ph. S. S. R.*, **23** 1184, (1981), Holographic microscopy study of the temperature dependence of the refractive index in the region of smectic-A-nematic phase transition.
691. Lembrikov, B. I., *Fiz. Tverd. T.*, **23** 1216, (1981), Induced Mandelshtam-Brillouin scattering analog in smectic-A liquid-crystals.
692. Lembrikov, B. I., *Sov. Ph. Tp. R.*, **25** 1145, (1981), Nonlinear optics of smectic-A liquid-crystals.
693. Lenz, R. W., and Jin, J. I., *Macromolec.*, **14** 1405, (1981), Liquid-crystal polymers .3. Thermotropic rigid aromatic copolyesters with bisphenol spacers.
694. Leslie, F. M., *Molec. Cryst.*, **63** 111, (1981), Viscometry of nematic liquid-crystals.
695. Lesniak, M., Szwajczak, E., Labno, W., and Szymanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 595, Pergamon, 1981. On the anisotropy of electrical conductivity of p-n-pentyl-p-cyanobiphenyl and p-n-octoxy-p-cyanobiphenyl in nematic and smectic phases.
696. Lester, R. W., *Displays*, **2** 266, (1981), Liquid-crystal graphics imager.
697. Levelut, A. M., Hardouin, F., Gasparoux, H., Destrade, C., and Tinh, N. H., *J. Physique*, **42** 147, (1981), X-ray-investigations and magnetic field effect on a nematic phase of disc-like molecules.
698. Levelut, A. M., Moussa, F., Doucet, J., Benattar, J. J., Lambert, M., and Dorner, B., *J. Physique*, **42** 1651, (1981), Local order and lattice dynamics in the ordered phases of T.B.B.A. (terephthal-bis-butyl-aniline).
699. Levelut, A. M., Tarento, R. J., Hardouin, F., Achard, M. F., and Sigaud, G., *Phys. Rev. A*, **24** 2180, (1981), Number of SA phases.
700. Levinson, L. M., Castlebe., D. E., and Becker, C. A., *Am. Ceram. S.*, **60** 931, (1981), Varistors for liquid-crystal displays.
701. Lewis, I. C., and Barr, J. B., *Molec. Cryst.*, **72** 65, (1981), Differential scanning calorimetry of p-sexiphenyl.

702. Li, G. Z., Elnokaly, M. A., and Friberg, S. E., *Molec. Cryst.*, **72** 183, (1981), Nonaqueous lyotropic liquid-crystals from lecithin and nonionic surfactants.
703. Liebert, L., Strzelec, L., Vanluyen, D., and Levelut, A. M., *Eur. Polym. J.*, **17** 71, (1981), (FR) Structural study of a thermotropic nematic polyester using X-ray-diffraction.
704. Lim, K. C., and Ho, J. T., *Molec. Cryst.*, **67** 199, (1981), Cholesteric pitch near the smectic-C phase.
705. Limmer, S., Schmiedel, H., Hillner, B., and Losche, A., *J. Physique*, **42** 1111, (1981), Transfer of the macroscopic alignment of mesophases into the solid-state.
706. Limmer, S., Findeise, M., Schmiedel, H., and Hillner, B., *J. Physique*, **42** 1665, (1981), Investigations on the ordering of five p,p-di-n-alkoxy-azoxybenzenes in their nematic phases by proton NMR.
707. Lindblom, G., *Act. Chem B*, **35** 61, (1981), NMR diffusion. A method for studies of dynamics and mesophase structure of membrane lipids.
708. Linhede, C. G., *Appl. Phys. L.*, **38** 615, (1981), Tristability in the electric-field-induced phase transformation of liquid-crystal films.
709. Lipatov, Y. S., Shilov, V. V., and Gomza, I. P., *D. A. N. SSSR*, **258** 938, (1981), (RS) Structural peculiarities of polymethylmethacrylate liquid-crystal blends.
710. Lipatov, Y. S., Tsukruk, V. V., Shilov, V. V., Konstanti., I. I., and Amerik, Y. B., *Vysso. Soed. A*, **23** 1533, (1981), (RS) X-ray study of polymer liquid-crystals on the basis of p-oxy-p-n-amyloxyazobenzene.
711. Lipatov, Y. S., Tsukruk, V. V., Shilov, V. V., Grebneva, V. S., Konstanti., I. I., and Amerik, Y. B., *Vysso. Soed. B*, **23** 818, (1981), (RS) Liquid-crystalline ordering in the range of comb-like polymers on the basis of phenylbenzoates with alkoxyl substituents of various lengths.
712. Lipatov, Y. S., Tsukruk, V. V., Shilov, V. V., Amerik, Y. B., and Konstanti., I. I., *Advances in Liquid-Crystal Research and Applications*, p. 943, Pergamon, 1981, Structural features of liquid-crystalline state of poly-p-(meth)-acryloyloxy p-n-pentyloxy azobenzenes in terms of X-ray evidence and Fourier analysis of intensity curves.
713. Litster, J. D., Garland, C. W., Lushingt., K. J., and Schaetzi., R., *Molec. Cryst.*, **63** 145, (1981), Experimental studies of liquid-crystal phase transitions.
714. Liu, C. T., *Molec. Cryst.*, **74** 25, (1981), Molecular structure and phase transition of thermotropic liquid-crystals.
715. Liu, M., *Phys. Rev. A*, **24** 2720, (1981), Hydrodynamic theory of biaxial nematics.
716. Locquene., R., *Pramana*, **16** 201, (1981), A statistical model of the discotic mesophase.
717. Lohar, J. M., and Patel, G. H., *Molec. Cryst.*, **74** 19, (1981), Mesomorphic characteristics of thermotropic mesogens p-p-disubstituted phenyl cinnamates .I. p-p-n-alkoxycinnamoyloxy)-acetophenones.
718. Lohar, J. M., and Mashru, U., *Molec. Cryst.*, **70** 29, (1981), Schiffs base homologous series of new mesogens: p-(p-n-alkoxycinnamoyloxy)benzylidene-p-n, n-dimethylaminoanilines and p-(p-n-alkoxycinnamoyloxy) benzylidene-p-n, n-diethylaminoanilines.
719. Lohar, J. M., and Dave, J. S., *Molec. Cryst.*, **70** 279, (1981), Synthesis and study of new mesogens II: p-(p-n-alkoxycinnamoyloxy)-benzylidene p-anisidines (1) and p-(p-n-alkoxycinnamoyloxy)-benzylidene anilines (2).
720. Lohbeck, H. U., *Advances in Liquid-Crystal Research and Applications*, p. 1267, Pergamon, 1981, Can liquid-crystal thermography improve the early diagnosis of breast cancer?

721. Long, R. C., Babcock, E. E., and Goldstein, J. H., *J. Phys. Chem.*, **85** 1165, (1981), Nuclear magnetic-resonance of oriented fluorobenzene in a nematic potassium laurate mesophase — distance ratios and order tensor elements.
722. Longa, L., *Act. Ph. Pol. A*, **60** 497, (1981), Chain version of the molecular field approximation for systems with rotational degrees of freedom .1. General theory.
723. Longa, L., *Act. Ph. Pol. A*, **60** 513, (1981), Chain version of the molecular field approximation for systems with rotational degrees of freedom .2. Results for some models of anisotropic liquids.
724. Loshchilov., E., *Advances in Liquid-Crystal Research and Applications*, p. 799, Pergamon, 1981, Laser Raman studies of lipid phase transitions in model membranes. The effect of ions on phosphatidylcholine multilayers.
725. Lowe, A. C., *Molec. Cryst.*, **66** 295, (1981), Assessment of nematic guest-host systems for application to integrated liquid-crystal displays.
726. Lowe, A. C., and Cox, R. J., *Molec. Cryst.*, **66** 309, (1981), Order parameter and the performance of nematic guest-host displays.
727. Lubensky, T. C., Dunn, S. G., and Isaacson, J., *Phys. Rev. L.*, **47** 1609, (1981), Gauge transformations and the nematic to smectic-A transition.
728. Luckhurst, G. R., Setaka, M. and Yeates, R. N., *J. Magn. Res.*, **42** 351, (1981), The effect of nuclear spin quantization on line broadening in the electron resonance spectra of spin probes dissolved in anisotropic media. An experimental investigation.
729. Luckhurst, G. R., and Timimi, B. A., *Molec. Cryst.*, **64** 253, (1981), A molecular theory of re-entrant polymorphism in pure liquid-crystals.
730. Luckhurst, G. R., and Vilorio, F. R., *Molec. Cryst.*, **72** 201, (1981), The relationship between the second and fourth rank order parameters for liquid-crystals composed of non-rigid molecules.
731. Luckhurst, G. R., Simpson, P., and Zannoni, C., *J. Phys. L.*, **78** 429, (1981), Computer simulation studies of anisotropic systems. The effect of external fields.
732. Luo, F. C., *IEEE Device*, **28** 740, (1981), Thin-film transistor for flat-panel displays.
733. Luz, Z., Poupko, R., and Samulski, E. T., *J. Chem. Phys.*, **74** 5825, (1981), Deuterium NMR and molecular ordering in the cholesteryl alkanoates mesophases.
734. Luz, Z., Naor, R., and Meirovit., E., *J. Chem. Phys.*, **74** 6621, (1981), Dynamic NMR in liquid-crystalline solvents: Ring inversion of S-trioxane.
735. Lyakov, G. A., and Akarov, V. A., *Ivuz. Radiof.*, **24** 373, (1981), (RS) Self-action of electromagnetic waves in a periodically inhomogeneous medium: Dynamic light-scattering by cholesteric liquid-crystals.
736. Lyakov, G. A., and Vorlo, Y. P., *Kvan. Elektr.*, **8** 2245, (1981), (RS) Frequency doubling in liquid-crystals: Optimal thickness of the sample.
737. Lydon, J. E., *Molec. Cryst.*, **72** 79, (1981), A hypothesis for the molecular organisation in the SD and S4 phases.
738. Mackay, A. L., *Biophys. J.*, **35** 301, (1981), A proton NMR moment study of the gel and liquid-crystalline phases of dipalmitoyl phosphatidylcholine.
739. Mackley, M. R., Pinaud, F., and Sickmann, G., *Polymer*, **22** 437, (1981), Observation of disclinations and optical anisotropy in a mesomorphic copolyester.
740. Mada, H., *J. Chem. Phys.*, **75** 372, (1981), Surface stress anisotropy of treated glass and liquid-crystal alignment.
741. Mada, H., *Appl. Phys. L.*, **39** 701, (1981), Wall effect of director deformation in nematic liquid-crystals.
742. Mada, H., and Kobayashi, S., *Molec. Cryst.*, **66** 57, (1981), Surface order parameter of 4-n-heptyl-4-cyanobiphenyl.

743. Magagnini, P. L., Frosini, V., Lupinacci, D., and Bresci, B., *Advances in Liquid-Crystal Research and Applications*, p. 925, Pergamon, 1981, Polymer mesophases. Studies on the smectic isotropic transition of poly (p-biphenyl acrylate).
744. Magakova, Y. G., Vistin, L. K., and Kleinman, I. A., *Molec. Cryst.*, **66** 219, (1981), The effect of magnetic field on electrohydrodynamic instability threshold in liquid-crystals.
745. Makarenko, I. N., Nefedov, S. N., Kostanti, M. S., and Stishov, M. S., *JETP Letter*, **34** 425, (1981), Critical point on the smectic-A smectic-B phase transition line in MBMBAC.
746. Makow, D. M., *Molec. Cryst.*, **67** 233, (1981), Reflectance, transmittance and color gamut of superimposed layers of cholesteric liquid-crystals.
747. Makow, D. M., *Molec. Cryst.*, **68** 301, (1981), Reflectance, transmittance and color gamut of superimposed layers of cholesteric liquid-crystals.
748. Maksimov, V. I., and Kirichen., G. B., *Zh. Tekh. Fiz.*, **51** 1765, (1981), (RS) The influence of thickness and composition of liquid-crystal on values of threshold stresses and currents of dynamic light-scattering effect.
749. Mallory, W. R., and Task, H. L., *P. Soc. Photo.*, **298** 115, (1981), Dynamic spatial filter for optical signal-processing using a liquid-crystal light valve.
750. Malomush, N. P., Latushki., S. D., and Grunder, K. P., *Ann. Physik*, **38** 179, (1981), Depolarized light-scattering from paramagnetic liquids in a magnetic field.
751. Malthete, J., Canceill, J., Gabard, J., and Jacques, J., *Tetrahedron*, **37** 2815, (1981), (FR) Research on mesomorphic substances .8. Preparation and mesomorphic properties of isometric series.
752. Malthete, J., Canceill, J., Gabard, J., and Jacques, J., *Tetrahedron*, **37** 2823, (1981), (FR) Research on mesomorphic substances .9. Forked smectics: Molecular organization in smectic-A phases.
753. Malthete, J., Destrade, C., Tinh, N. H., and Jacques J., *Molec. Cryst.*, **64** 223, (1981), A pure disc-like molecule with cholesteric properties.
754. Mannevil, P., *Molec. Cryst.*, **70** 223, (1981), The transition to turbulence in nematic liquid-crystals.
755. Marajver, S. D., Yorke, E. D., and Derocco, A. G., *Phys. Rev. A*, **23** 897, (1981), Random-walk model of the phase transition of hydrocarbon chains on a lattice.
756. Maraldi, J. P., *Chem. Phys. L.*, **28** 227, (1981), Comments on the use of the order parameters obtained from H-2-NMR to describe the anisotropic motions of the methylene groups of the fatty acyl chains in lipid bilayer membranes.
757. Marcinia., W., and Witkiewi., Z., *J. Chromat.*, **207** 333, (1981), Effect of the amount of liquid-crystal and type of support on some properties of the liquid crystalline stationary phase support system.
758. Marcus, M., *J. Physique*, **42** 61, (1981), Quasi-crystalline behavior and phase transition in cholesteric blue phase.
759. Maret, G., Milas, M., and Rinaudo, M., *Polym. Bull.*, **4** 291, (1981), Cholesteric order in aqueous solutions of the polysaccharide xanthan.
760. Maret, G., Blumstein, A., and Vilasagar, S., *Abs. Pap. A. C. S.*, **181** 137, (1981), Orientation effects in thermotropic liquid-crystalline mesophases of polyesters subjected to high magnetic fields.
761. Margerum, J. D., Jensen, J. E., and Lackner, A. M., *Molec. Cryst.*, **68** 137, (1981), Effects of molecular length on nematic mixtures .1. Anisotropic and dynamic scattering properties of 4-alkoxyphenyl 4-alkylbenzoate mixtures.
762. Margerum, J. D., Jensen, J. E., and Lackner, A. M., *Molec. Cryst.*, **68** 157, (1981), Effects of molecular length on nematic mixtures .2. Anisotropic and dynamic scattering properties of 4-alkoxyphenyl 4-alkylcyclohexanecarboxylate mixtures.

763. Margerum, J. D., and Lackner, A. M., *Molec. Cryst.*, **76** 211, (1981), Ester liquid-crystal mixtures for dynamic scattering at elevated temperatures.
764. Marrucci, G., *Molec. Cryst.*, **72** 153, (1981), Prediction of Leslie coefficients for rodlike polymer nematics.
765. Martin, T. I., and Haas, W. E., *Analyt. Chem.*, **53A** 593, (1981), Analysis of liquid-crystal mixtures.
766. Martinotla., P., and Durand, G., *J. Physique*, **42** 269, (1981), Dielectric relaxation in a ferroelectric liquid-crystal.
767. Martinotla., P., *Molec. Cryst.*, **66** 61, (1981), Unwinding of the helical texture of a chiral smectic-C liquid-crystal through ferroelectric and dielectric anisotropic coupling with an applied field.
768. Martinotla., P., Duke, R., and Durand, G., *Molec. Cryst.*, **75** 249, (1981), Temperature dependence of tilt, pitch and polarization in ferroelectric liquid-crystals.
769. Martinoty, P., and Bader, M., *J. Physique*, **42** 1097, (1981), Measurement of the birefringence induced in liquids by ultrasonic waves: Application to the study of the isotropic phase of PAA near the transition point.
770. Martinpe., J. A., and Muriel, M. A., *IEEE J. Q. El.*, **17** 70, (1981), Total switching of unpolarized light with an electrooptical liquid-crystal device.
771. Martinpe., J. A., and Muriel, M. A., *J. Opt. Soc.*, **71** 1640, (1981), Hybrid optical bistability with liquid-crystals.
772. Martinpe., J. A., and Muriel, M. A., *J. Opt. Soc.*, **71** 1640, (1981), Hybrid optical oscillator using liquid-crystal devices.
773. Mashiyam., K. T., and Mori, H., *Prog. T. Ph. Jp.*, **66** 154, (1981), Anomalous fluctuations near non-equilibrium soft transitions .2. Symmetry-breaking transitions.
774. Matsukaw., F., and Arai, H., *Molec. Cryst.*, **68** 303, (1981), Improved temperature coefficient of threshold voltage in twisted nematic liquid-crystals.
775. Matsumot., S., Mizunoya, K., Kawamoto, M., Wada, Y., and Tomii, H., *Molec. Cryst.*, **71** 259, (1981), Effect of liquid-crystal classes on the improvement of dynamic scattering by electron donor-acceptor dopants.
776. Matsuo, M., Ozaki, F., Konno, Y., and Ogita, T., *J. Pol. Sc. P. P.*, **19** 1531, (1981), A light-scattering study of deformation of liquid-crystalline spherulites of poly(gamma-benzyl-L-glutamate) in an electric field.
777. Matsuo, M., Kakei, K., Nagaoka, Y., Ozaki, F., Murai, M., and Ogita, T., *J. Chem. Phys.*, **75** 5911, (1981), A light-scattering study of orientation of liquid-crystalline rodlike textures of poly(gamma-benzyl-L-glutamate) in an electric field by saturation electric birefringence method.
778. Matsuo, M., Kakei, K., and Nagaoka, Y., *J. Chem. Phys.*, **75** 5925, (1981), Light-scattering studies on the deformation mechanism of liquid-crystals under electric and magnetic fields.
779. Matsushi., M., *Molec. Cryst.*, **68** 1, (1981), On the possibility of a biaxial smectic-A phase.
780. Matsushi., M., *J. Phy. S. Jap.*, **50** 1351, (1981), Mean-field theory of smectic-A smectic-C mesophase transition.
781. McIntyre, J. E., and Milburn, A. H., *Br. Polym. J.*, **13** 5, (1981), Thermotropic liquid-crystalline polyesters and polyesteramides.
782. McNeil, R., Scheidt, W. R., and Thomas, J. K., *Molec. Cryst.*, **78** 85, (1981), A crystallographic and Raman spectroscopic study of 1,12-diaminododecane dihydrochloride monohydrate.
783. Meiboom, S., Sethna, J. P., Anderson, P. W., and Brinkman, W. F., *Phys. Rev. L.*, **46** 1216, (1981), Theory of the blue phase of cholesteric liquid-crystals.
784. Meiboom, S., and Sammon, M., *Phys. Rev. A*, **24** 468, (1981), Blue phases of cholesteryl nonanoate.

785. Meiboom, S., Sethna, J. P., Anderson, P. W., and Brinkman, W. F., *Phys. Rev. L.*, **46** 1216, (1981), Theory of the blue phase of cholesteric liquid-crystals.
786. Melzer, D., Vanes, A., Nabarro, F. R. N., and Godinho, E., *Phil. Mag. A*, **44** 835, (1981), The disclination $S = 1/2$ at the air to nematic interface.
787. Menezel, J., and Wunderli, B., *Polymer*, **22** 778, (1981), Phase transitions in mesophase macromolecules: The transitions of poly(p-acryloyloxybenzoic acid).
788. Meraldi, J. P., and Schlitt, J., *Bioc. Biop. A.*, **645** 193, (1981), A statistical mechanical treatment of fatty acyl chain order in phospholipid-bilayers and correlation with experimental data .B. Dipalmitoyl-3-SN-phosphatidylcholine.
789. Meurisse, P., Noel, C., and Monnerie, L., *Br. Polym. J.* **13** 55, (1981), Polymers with mesogenic elements and flexible spacers in the main chain: Aromatic-aliphatic polyesters.
790. Milbrath, J. R., Shaffer, K. A., Moskowitz, M., Fox, S. H., Bassett, L. W., and Gold, R. H., *Advances in Liquid-Crystal Research and Applications*, p. 1261, Pergamon, 1981, Evaluation of ELC plate thermography.
791. Milczarek, J., and Wentowska, K., *J. Physique L.*, **42** 335, (1981), The nematic critical point in the molecular-field approximation.
792. Minasyan, M. K., Sarkisya, A. G., Shaginya, A. A., and Arutyun, S. O., *Colloid J.*, **43** 299, (1981), X-ray-diffraction study of the solubilization of ortho-xylene and ethylbenzene in the lamellar liquid-crystalline phase of the sodium pentadecylsulfonate-water system.
793. Mineyev, L. I., Valkova, L. A., Shabyshe, L. S., and Chistyako, I. G., *Sov. Ph. Je. R.*, **53** 1020, (1981), Investigation of the structures of some smectic A, B and E phases.
794. Mints, R. I., Kononenk., E. V., and Akselrod, E. G., *Sov. Ph. Je. R.*, **53** 1122, (1981), Disclination mechanism of instability in nematic cholesteric mixtures.
795. Miraldi, E., Trossi, L., Valabrega, P. T., and Oldano, C., *Nuov. Cim. B*, **66** 179, (1981), Absolute measurements of the elastic constants of nematic liquid-crystals by light-scattering.
796. Misaki, S., Takamats., S., Suefuji, M., Mitote, T., and Matsumur., M., *Molec. Cryst.*, **66** 123, (1981), The synthesis of fluorine containing phenyl benzoates and their properties as liquid-crystals.
797. Mitaku, S., *Molec. Cryst.*, **70** 21, (1981), Ultrasonic studies of lipid bilayer phase transition.
798. Miyaji, A., Mada, H., and Kobayashi, S., *Molec. Cryst.*, **74** 121, (1981), Optical properties of 90-degrees twisted nematic liquid-crystal displays: Estimation by colorimetry.
799. Miyazawa, K., Yokono, T., Sanada, Y., Yamada, E., and Shimokaw., S., *Carbon*, **19** 143, (1981), High-temperature H-1-NMR study of mesophase formation.
800. Mizuno, M., and Shinoda, T., *Molec. Cryst.*, **69** 103, (1981), Internal rotation of n-(p-methoxybenzylidene)-p-n-butyl-aniline (MBBA) and benzylidene-aniline (BA).
801. Moltchanov, Y., Borodin, P. M., Privalov, A., Grande, S., and Loesche, A., *Advances in Liquid-Crystal Research and Applications*, p. 333, Pergamon, 1981, Alignment of smectic-A liquid-crystal obtained by cooling the isotropic phase in magnetic field. NMR-study.
802. Moncton, D. E., Pindak, R., Davey, S. C., and Goodby, J. W., *B. Am. Phys. S.*, **26** 274, (1981), X-ray observations of a stacked hexatic liquid-crystal B-phase.
803. Mori, N., *Chem. Lett.*, **1981** 95, (1981), Liquid-crystalline structures of poly-alpha-acids .3. Liquid-crystalline structures of random co-polymers of L-leucine and gamma-benzyl-L-glutamate.

804. Mori, T., and Tanaka, R., *Kobun. Ron. Jp.*, **38** 61, (1981), (JA) Liquid-crystals and solid films of poly(L-glutamic acid) .3. Liquid-crystal of poly(L-glutamic acid) in pyridine water mixtures and mechanical relaxation of poly(L-glutamic acid) films.
805. Moscicki, J. K., and Kresse, H., *Adv. Mol. Int.*, **19** 145, (1981), On the interpretation of dielectric relaxation in nematogens.
806. Moscicki, J. K., Williams, G., and Aharoni, S. M., *Polymer*, **22** 571, (1981), Rigid backbone polymers .22. Dielectric relaxation in lyotropic and highly concentrated isotropic solutions of poly(n-hexylisocyanate) in toluene.
807. Moscicki, J. K., Williams, G., and Aharoni, S. M., *Polymer*, **22** 1361, (1981), Rigid backbone polymers .23. Dielectric relaxation of isotropic and lyotropic solutions of a co-polymer of n-butyl isocyanate and n-nonyl isocyanate.
808. Moskowitz, M., Fox, S. H., Delre, R. B., Milbrath, J. R., Bassett, L. W., Gold, R. H., and Shaffer, K. A., *Radiology*, **140** 659, (1981), The potential value of liquid-crystal thermography in detecting significant mastopathy.
809. Motoc, C., Honciunc, M., and Rosu, C., *B. I. Po. Buc. C.*, **43** 13, (1981), On some phenomena occurring at the crystal mesophase surface.
810. Murthy, V. R., and Reddy, R. N. V. R., *J. Quan. Spec.*, **25** 183, (1981), Polarizabilities and susceptibilities of nematic azoxybenzenes.
811. Murthy, V. R., and Reddy, R. N. V. R., *Act. Ph. Ac. Hu.* **50** 207, (1981), Polarizabilities and susceptibilities of cyano-alkyl-biphenyl liquid-crystals.
812. Murza, M. M., Chuvyron, A. N., Zakirov, A. D., and Mukhamad., G. M., *Zh. Org. Kh.*, **17** 1961, (1981), (RS) The synthesis and study of mesomorphic properties of some derivatives of the Schiff bases.
813. Muscutariu, I., Motoc, I., and Dragomir, O., *Proc. Int. Con.*, 463, (1981), Parametric model for isotropic-nematic transitions.
814. Muta, K., Takezoe, H., Fukuda, A., and Kuze, E., *Jap. J. A. Phys.*, **20** 503, (1981), Mixing effects on the Cotton-Mouton constant of 3OCB and 5OCB in isotropic phase.
815. Myl, J., *Advances in Liquid-Crystal Research and Applications*, p. 1217, Pergamon, 1981, Application of cholesterics for detection of organic vapours.
816. Naemura, S., *Molec. Cryst.*, **68** 183, (1981), Physicochemical study on liquid-crystal substrate interfacial interactions.
817. Naidenova, S. B., Derzhanski, A., and Pavloff, Y. V., *Advances in Liquid-Crystal Research and Applications*, p. 751, Pergamon, 1981, Investigations on the influence of different amphiphilic substances on foam stability of sodium dodecyl-benzenesulfonate.
818. Naikdwad., K. P., Panse, D. G., Bapat, B. V., and Ghatge, B. B., *J. Chromat.*, **206** 361, (1981), Liquid-crystals .2. Applications of liquid-crystals as stationary phases in gas-liquid-chromatography.
819. Naikdwad., K. P., Bapat, B. V., and Ghatge, B. B., *I. J. Chem. B.*, **20** 165, (1981), Synthesis of laterally substituted new liquid-crystalline compounds: 4-alkyl-alkoxy-2-methyl-4-(4-alkoxybenzoyloxy)azobenzenes.
820. Nakagawa, Y., Sawada, K., and Masuda, Y., *Molec. Cryst.*, **67** 283, (1981), Effects of nematic compounds with high clearing points on the multiplexing performance of twisted nematic displays.
821. Nakahara, M., Yoshimur., Y., and Osugi, J., *B. Chem. S. Jap.*, **54** 99, (1981), A dilatometric study of mesomorphic transitions in cholesteric oleyl carbonate and cholesteryl oleate.
822. Nakamura, M., and Ura., M., *J. Appl. Phys.*, **52** 210, (1981), Alignment of nematic liquid-crystals on ruled grating surfaces.
823. Nakamura, M., *J. Appl. Phys.*, **52** 4561, (1981), Surface topography and alignment of liquid-crystals on rubbed oxide surfaces.

824. Nakano, F., Isogai, M., Itoh, R., Satoh, M., and Kandoh, Y., *Jap. J. A. Phys.*, **20** 1371, (1981), Critical condition of twist-domain generation and the effect of pretilt angles on such generation in twisted nematic liquid-crystal cells.
825. Nakatani, N., and Hirota, M., *Jap. J. A. Phys.*, **20** 2281, (1981), Alignment of nematic MBBA on the cleavage surface of ferroelectric TGS.
826. Naqvi, K. R., *J. Chem. Phys.*, **74** 2658, (1981), Photoselection in uniaxial liquid-crystals: The advantages of using saturating light pulses for the determination of orientational order.
827. Nasta, L., Lupa, A., and Giurgea, M., *Molec. Cryst.*, **71** 65, (1981), Characteristics of domains appearing in nematic liquid-crystals below the threshold voltage of chevrons.
828. Nasta, L., and Giurgea, M., *Rev. Ro. Phys.*, **26** 999, (1981), On electroconvective domains in nematic liquid-crystals.
829. Navard, P., Haudin, J. M., Dayan, S., and Sixou, P., *J. Pol. Sc. P. L.*, **19** 379, (1981), DSC study of liquid-crystalline solutions of cellulose-acetate in trifluoroacetic acid.
830. Nehring, J., *J. Chem. Phys.*, **75** 4326, (1981), Light propagation and reflection by adsorbing cholesteric layers.
831. Nehring, J., *Advances in Liquid-Crystal Research and Applications*, p. 1155, Pergamon, 1981, Matrix-addressed liquid-crystal displays.
832. Nelson, D. R., and Toner, J., *Phys. Rev. B*, **24** 363, (1981), Bond-orientational order, dislocation loops, and melting of solids and smectic-A liquid-crystals.
833. Nelson, D. R., *Physica A*, **106** 108, (1981), Two-dimensional melting.
834. Nesrullac, A. N., Rabinovic, A. Z., Sonin, A. S., and Shelemin, E. B., *Kvan. Elektr.*, **7** 2578, (1981), Thermooptic data storage in the chiral ferroelectric smectic-C phase of liquid-crystals.
835. Neto, A. M. F., and Amaral, L. Q., *Molec. Cryst.*, **74** 109, (1981), Study of type I lyomesophases by X-ray diffraction.
836. Neubert, M. E., Cline, R. E., Zawaski, M. J., Wildman, P. J., and Ekachai, A., *Molec. Cryst.*, **76** 43, (1981), The effect on mesomorphic properties of substituting a sulfur for the ether oxygen atom in the ester linkage of 4-alkyl-phenyl-4-alkyl- or alkoxybenzoates.
837. Neville, A. C., *Molec. Cryst.*, **76** 279, (1981), Cholesteric properties.
838. Noel, C., Monnerie, L., Achard, M. F., Hardouin, F., Sigaud, G., and Gasparoux H., *Polymer*, **22** 578, (1981), Orientation of nematic liquid-crystalline polymer in a magnetic field: Evaluation of magnetic susceptibility.
839. Nordio, P. L., and Segre, U., *Nuov. Cim. B*, **63** 322, (1981), Effects of the molecular rotational dynamics on dielectric and far infrared spectra of anisotropic liquids.
840. Nyitrai, K., Cser, F., Hardy, G., Babaev, T. M., *Magy. Kem. Fo.*, **87** 318, (1981), (HU) Polymerization in liquid-crystals .11. Copolymerization of n-acryloyl-pyridine with cholesteryl-acrylate and phenyl-para-acryloyloxy-benzoate.
841. Nyitrai, K., Cser, F., and Hardy, G., *Polym. J.*, **13** 1085, (1981), Polymerization in liquid-crystals .10. Study of phase diagram and copolymerization of para-ethoxy-para-acryloyloxy-azobenzene with cholesteryl acrylat.
842. Obayashi, C., *Jap. J. A. Phys.*, **20** 1753, (1981), DC-controllable bubble domains in mixed liquid-crystals.
843. Ochiai, S., Imura, K., Takeda, M., Ohuchi, M., and Matsushi., K., *Molec. Cryst.*, **78** 227, (1981), C-13 relaxation times study of liquid-crystalline p-methoxybenzylidene-p-butylaniline.
844. Ogata, N., Sanui, K., and Koyama, T., *J. Pol. Sc. P. C.*, **19** 151, (1981), Synthesis of aromatic polyamides having pyridine moiety and their lyotropic properties in solution.

845. Ogawa, F., Naemura, S., Tani, C., *Molec. Cryst.*, **70** 251, (1981), Liquid-crystal cross-pattern display characteristics.
846. Oh, C. S., and Kramer, G., *SID Dig.*, **12** 78, (1981), Very-large scale dichroic displays.
847. Ohgawara, M., and Uchida, T., *Jap. J. A. Phys. L.* **20** 75, (1981), Effect of impurities on liquid-crystal molecular orientation on inorganic surfaces.
848. Ohgawara, M., and Uchida, T., *Jap. J. A. Phys. L.* **20** 237, (1981), Relation between polarity of substrate surface and liquid-crystal molecular-orientation.
849. Ohgawara, M., Uchida, T., and Wada, M., *Molec. Cryst.*, **74** 227, (1981), Liquid-crystal orientation on various surfaces.
850. Ohki, K., Kondo, Y., Fujii, T., and Iizuka, E., *Kobun. Ron. Jp.*, **38** 493, (1981), (JA) Circular dichroism of liquid-crystalline solutions of polyglutamic acid.
851. Ohta, K., Jiang, G. J., Yokoyama, M., Kusabayash., S., and Mikawa, H., *Molec. Cryst.*, **66** 283, (1981), Multiple melting behaviour in square-planar trans-bis-(1-p-n-alkylphenyl)butane-1.3-dionato)-copper(II). The effect of alkyl chain length.
852. Ohta, K., Yokoyama, M., Kusabayash., S., and Mikawa, H., *Molec. Cryst.*, **69** 131, (1981), Square-planar trans-bis-(1-p-n-octylphenyl)butane-1.3-dionato)-copper(II), a new compound exhibiting three kinds of "double melting" behavior.
853. Onusseit, H., and Stegemeyer H., *Z. Naturfo. A*, **36** 1083, (1981), Liquid single crystals of choleic blue phases.
854. Orrell, K. G., and Sik, V., *J. Chem. S. F. 2*, **77** 273, (1981), Nuclear magnetic resonance studies of some fluorinated pyridines oriented in nematic phases.
855. Oshea, D. C., and Kuster, E. J., *Molec. Cryst.*, **76** 107, (1981), Measurement of the refractive index and estimate of the order parameter in oriented liquid-crystals.
856. Osipov, M. A., and Pikin, S. A., *Sov. Ph. Cr. R.*, **26** 263, (1981), A molecular model for ferroelectric state in chiral-smectic liquid-crystals.
857. Osipov, M. A., and Pikin, S. A., *Sov. Ph. Je. R.*, **53** 1245, (1981), Microscopic nature of the flexoelectric effect in smectic-C liquid-crystals.
858. Osman, M. A., Pietrone, L., Scheffer, T. J., and Zeller, H. R., *J. Chem. Phys.*, **74** 5377, (1981), The dichroic ratio of pleochroic dyes dissolved in nematic liquid-crystals.
859. Osman, M., and Schad, H. P., *Molec. Cryst.*, **72** 89, (1981), Trans,trans-cyclohexyl cyclohexanoates-II.
860. Osman, M. A., *Molec. Cryst.*, **72** 291, (1981), Trans-cyclohexyl trans-cyclohexylmethyl ethers: A new class of aliphatic liquid-crystals.
861. Ostlund, S., and Halferin, B. I., *Phys. Rev. B*, **23** 335, (1981), Dislocation-mediated melting of anisotropic lyers.
862. Ostrovski, B. I., Rabinovic., A. Z., and Chigrinov, V. G., *Advances in Liquid-Crystal Research and Applications*, p. 469, Pergamon, 1981, Behaviour of ferroelectric smectic liquid-crystals in electric field.
863. Oswald, P. J. *Physique L.*, **42** 171, (1981), Observations in homotropic anchoring of the + π -disclinations in a hexagonal discotic liquid-crystal.
864. Oswald, P., and Kleman, M., *J. Physique L.*, **42** 1461, (1981), (FR) Defects in hexagonal discotic mesophases: Disclinations and Walls.
865. Otani, S., *Molec. Cryst.*, **63** 249, (1981), Carbonaceous mesophase and carbon fibers.
866. Otnes, K., and Riste, T., *Phys. Lett. A*, **85** 43, (1981), Temperature dependence of the threshold gradient for convection in nematic p-azoxyanisole.
867. Oweimree., G. A., *Molec. Cryst.*, **68** 257, (1981), Thermodynamics of solutions of various non-mesomorphic solutes in the nematic p-azoxyanisole.

868. Owersbra, J. R., Calder, I. D., Ketterson, J. B., and Halperin, W. P., *Molec. Cryst.*, **76** 175, (1981), NMR-study of a smectic-A smectic-B transition.
869. Ozawa, R., Shimomura, T., Mada, H., and Kobayashi, S., *Jap. J. A. Phys. L.*, **20** 701, (1981), Colorimetric study of multiplexability for twisted nematic liquid-crystal displays.
870. Ozawa, R., Moroi, S., Mada, H., Shimomura, T., and Kobayashi, S., *Molec. Cryst.*, **68** 199, (1981), Colorimetric characterization of TN and GH made LCDs.
871. Pakhalov, V. B., Tumasyan, A. S., and Chilinga, Y. S., *I. A. N. SSS Fiz.*, **45** 1384, (1981), (RS) Self-focusing of light in MBBA liquid-crystal in the nematic phase.
872. Paleos, C. M., Filippak, S. E., and Margomen, G., *J. Pol. Sc. P. C.* **19** 1427, (1981), A novel method for the synthesis of liquid-crystalline polymers: Preparation by the interaction of poly(acryloyl chloride) with mesogenic compounds.
873. Palfymu, P., and Balzarín, D. A., *Can. J. Phys.*, **59** 375, (1981), The Clausius-Mossotti relation for anisotropic molecular fluids.
874. Palfymu, P., and Balzarín, D. A., *Can. J. Phys.*, **59** 515, (1981), Refractive index measurements and order parameter determination of the liquid-crystal p-ethoxybenzilidene-p-n-butylaniline.
875. Palmieri, P., Samori, B., *J. Am. Chem. So.*, **103** 6818, (1981), Induced optical activity and liquid-crystal linear dichroism of 9,9-spirobi [9H-fluorene].
876. Panse, D. G., Naikdwad, K. P., Bapat, B. V., and Ghatge, B. B., *I. J. Techn.*, **19** 518, (1981), Applications of laterally monosubstituted and disubstituted liquid-crystals as stationary phases in gas-liquid chromatography.
877. Papa, I., and Scudieri, F., *Advances in Liquid-Crystal Research and Applications*, p. 441, Pergamon, 1981, Forced Rayleigh scattering in smectic-A liquid-crystals.
878. Parneix, J. P., and Chapoton, A., *Advances in Liquid-Crystal Research and Applications*, p. 297, Pergamon, 1981, Dielectric relaxation in nematic cyclohexane derivatives.
879. Parneix, J. P., and Chapoton, A., *Molec. Cryst.*, **78** 115, (1981), Dynamic dielectric anisotropy of nematics with respect to molecular structure.
880. Pasko, J. G., Tracy, J., and Elser, W., *Opt. Eng.*, **20** 970, (1981), Liquid-crystal infrared modulation.
881. Patel, D. L., and Gilbert, R. D., *J. Pol. Sc. P. P.*, **19** 1231, (1981), Lyotropic mesomorphic formation of cellulose in trifluoroacetic acid-chlorinated-alkane solvent mixtures at room temperature.
882. Patel, D. L., and Gilbert, R. D., *J. Pol. Sc. P. P.*, **19** 1449, (1981), Mesomorphic solutions of cellulose triacetate in halogenated organic acids and mixtures of trifluoroacetic-acid and dichloromethane.
883. Pavluchen, A. I., Kovshev, E. I., and Titov, V. V., *Khim. Getero.*, **1981** 85, (1981), (RS) Synthesis of mesomorphic 2-alkyl-5-n-cyanophenylpyridines.
884. Pavluchen, A. I., Titov, V. V., and Smirnova, N. I., *Advances in Liquid-Crystal Research and Applications*, p. 1007, Pergamon, 1981, Liquid-crystalline pyridine derivatives.
885. Pelcovit, R. a., and Grinstein, G., *B. Am. Phys. S.*, **26** 304 (1981), Smectic C-A transition in three dimensions.
886. Pelzl, G., Diele, S., Wiegeleben, A., and Demus, D., *Molec. Cryst.*, **64** 163, (1981), Reentrant nematic and smectic-C phases in binary systems of 4-(beta-cyanethyl)-phenyl 4-n-alkyloxy-cinnamates.
887. Pelzl, G., and Demus, D., *Z. Chem.*, **21** 151, (1981), (GE) Reentrant nematic and smectic-C phases in binary systems of 4-(beta-cyanethyl)-phenyl 4-n-alkyloxybenzoates.
888. Pelzl, G., Deutscher, H. J., and Demus, D., *Cryst Res. T.*, **16** 603, (1981), Field-induced texture conversions in smectic A, B and C phases.

889. Pelzl, G., Boettger, U., and Demus, D., *Cryst. Res. T.*, **16** K67, (1981), Reentrant nematic smectic-A and smectic-C phases in binary mixtures.
890. Pelzl, G., Boettger, U., Kalleit, S., Demus, D., and Sackmann, H., *Cryst Res T.*, **16** K119, (1981), Reentrant nematic phases in nitro compounds.
891. Pelzl, G., Sharma, N. K., Richter, L., Wiegeleben, A., Schroeder, G., and Diele, S., *Z. Phys. Ch. L.*, **262** 815, (1981), (GE) Smectic G and I phases in the homologous series of 4-n-4-nonyl-alkyloxy azobenzenes.
892. Pelzl, G., Boettger, U., and Demus, D., *Molec. Cryst.*, **64** 283, (1981), New polymorphism variants in binary systems of 4,4-bis-(n-nonylamino)-biphenyl.
893. Penchev, I. I., and Dozov, I. N., *Molec. Cryst.*, **73** 267, (1981), Anisotropic correction factors in the evaluation of nematic order parameters from polarized fluorescence measurements.
894. Penz, P. A., Surtani, K., Wen, W. Y., Johnson, M. R., Kane, D. W., Sanders, L. W., Culley B. G., and Fish, J. G., *SID Dig.*, **12** 116, (1981), Plastic substrate LCD.
895. Penz, P. A., *Molec. Cryst.*, **74** 163, (1981), Phase retarder LCDs.
896. Pepy, G., Kroo, N., and Rosta, L., *Advances in Liquid-Crystal Research and Applications*, p. 111, Pergamon, 1981, On the structure and dynamics of deuterated PAA neutron scattering.
897. Perez, A., Brunet M., and Parodi, O., *J. Physique*, **42** 1559, (1981), (FR) Defects in chiral smectics C .3. Surface boundary toric defects.
898. Perregau., A. E., *P. Soc. Photo*, **307** 70, (1981), Polarizers for liquid-crystal devices: The users viewpoint.
899. Pershan, P. S., Aeppli, G., Litster, J. D., and Birgeneau, R. J., *Molec. Cryst.*, **67** 205, (1981), High-resolution X-ray study of the smectic-A smectic-B phase transition and the smectic-B phase in butyloxybenzylidene octylaniline.
900. Pershin, V. K., and Skopinov, S. A., *Sov. Ph. Cr. R.*, **26** 98, (1981), Molecular interactions in liquid-crystals.
901. Pershin, V. K., and Skopinov, S. A., *Ukr. Fiz. Zh.*, **26** 1978, (1981), (RS) Local self-organization of molecules in liquid-crystals.
902. Pershin, V. K., and Pershin, V. L., *Advances in Liquid-Crystal Research and Applications*, p. 157, Pergamon, 1981, Microscopic mechanism of the structural instability in the mesogeneous molecular crystals.
903. Petrov, A. G., Mitov, M. D., and Derzhanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 695, Pergamon, 1981, Edge energy and pore stability in bilayer lipid membranes.
904. Petrov, M., and Durand, G., *J. Physique*, **42** 519, (1981), On the origin of electrohydrodynamic instabilities in smectic-C liquid-crystals.
905. Petrova, G. P., *Advances in Liquid-Crystal Research and Applications*, p. 357, Pergamon, 1981, Investigation of the acoustic parameters of 4-nitrophenyloxy-4-n-octyloxybenzoate (NPOOB) in the vicinity of clearing point from the fine structure of Rayleigh line of light scattering.
906. Phaovibul, O., Denprayoon., S., and Tang, I. M., *Molec. Cryst.*, **73** 71, (1981), Fractiona volume changes of binary nematic mesophase mixtures at the nematic isotropic transition.
907. Phaovibul, O., Sungsitta., P., Limcharoen, P., and Tang, I. M., *Molec. Cryst.*, **73** 81, (1981), Optical studies on binary mesophase mixtures containing p-azoxy-phenetole (PAP).
908. Phaovibul O., Chantanas., K., and Tang, I. M., *Molec. Cryst.*, **71** 233, (1981), Optical and dilatometric properties of binary mixtures of HBT and OBT.
909. Photinos, D. J., Neubert, M. E., and Doane, J. W., *B. Am. Phys. S.*, **26** 305, (1981), Direct NMR observation of partial rotational freeze-out in the smectic-C phase.

910. Photinos, D. J., Bos, P. J., Neubert, M. E., and Doane, J. W., *Phys. Rev. A*, **23** 3346, (1981), Direct NMR observation of rotational freeze-out in the smectic-C phase.
911. Photinos, D. J., and Saupe, A., *J. Chem. Phys.*, **75** 1313, (1981), Calculation of the electric conductivity of the hexagonal lyotropic mesophase.
912. Photinos, D. J., Yu, L. J., and Saupe, A., *Molec. Cryst.*, **67** 277, (1981), Resistivity measurements on aligned amphiphilic liquid-crystalline states.
913. Photinos, D. J., and Doane, J. W., *Phys. Rev. A*, **24** 2255, (1981), Reply to the comment on the NMR determination of molecular order in the smectic-C phase.
914. Photinos, D. J., and Doane, J. W., *Molec. Cryst.*, **76** 159, (1981), Measurements on the biaxial order of the smectic-C by the NMR spinning sample technique.
915. Pikin, S. A., *Molec. Cryst.*, **63** 181, (1981), Modulated structures in dielectric liquid-crystals.
916. Pikin, S. A., *Advances in Liquid-Crystal Research and Applications*, p. 447, Pergamon, 1981, Polarizable properties of liquid-crystals.
917. Pikin, S. A., and Yoshino, K., *Jap. J. A. Phy. L.*, **20** 557, (1981), Influence of boundaries on the phase transition point in ferroelectric smectics.
918. Pilipets., N. F., Sukhov, A. V., Tabiryan, N. V., and Zeldovich, B. Y., *Opt. Commun.*, **37** 280, (1981), The orientational mechanism of nonlinearity and the self-focusing of He-Ne-laser radiation in nematic liquid-crystal mesophase (theory and experiment).
919. Pindak, R., Moncton, D. E., Davey, S. C., and Goodby, J. W., *Phys. Rev. L.*, **46** 1135, (1981), X-ray observation of a stacked hexatic liquid-crystal B-phase.
920. Pindak, R., Bishop, D. J., Osheroff, D. D., and Sprenger, W. O., *B. Am. Phys. S.*, **26** 275, (1981), Mechanical measurements on crystal and hexatic B phases in free-standing liquid-crystal films.
921. Pindak, R., Bishop, D. J., Osheroff, D. D., and Sprenger, W. O., *Proc. Int. Con.*, 465, (1981), Mechanical measurement on freely-suspended liquid-crystal films.
922. Pirkel, S., and Myl, J., *Advances in Liquid-Crystal Research and Applications*, p. 657, Pergamon, 1981, Optical and rheological properties of binary mixtures of right- and left-handed cholesteric liquid-crystals.
923. Pirozhko., B. I., and Kostin, V. N., *Sov. Ph. S. S. R.*, **23** 324, (1981), Velocity and absorption of sound in a liquid-crystal containing impurities.
924. Pleiner, H., and Brand, H., *Phys. Rev. A*, **23** 944, (1981), Convective instabilities in cholesteric and smectic-A liquid-crystals.
925. Pohl L., Weber, G., Eidensch., R., Baur, G., and Fehrenbach, W., *Appl. Phys. L.*, **38** 497, (1981), Low-delta-N-twisted nematic cell with improved optical properties.
926. Polk, M. B., Bota, K. B., and Akubuiro E. C., *Abs. Pap. A. C. S.*, **181** 88, (1981), Synthesis and characterization of liquid-crystalline block copolyesters.
927. Polk, M. B., Bota, K. B., and Akubuiro, E. C., *Abs. Pap. A. C. S.*, **181** 89, (1981), Synthesis and characterization of liquid-crystalline block copolyamides.
928. Polk, M. B., Bota, K. B., Akubuiro, E. C., and Phingboc, M., *Macromolec.*, **14** 1626, (1981), Liquid-crystal block copolyesters .2. Preparation and properties of block copolyesters containing cyclohexane and benzene rings.
929. Pollmann, P., and Wiege, B., *Molec. Cryst.*, **72** 271, (1981), High pressure investigations of the phase transitions in cholesteryl pentanoate, and cholesteryl hexanoate.
930. Pope, J. M., Walker, L., Cornell, B. A., and Francis, G. W., *Biophys. J.* **35** 509, (1981), NMR-study of synthetic lecithin bilayers in the vicinity of the gel liquid-crystal transition.

931. Poupko, R., and Luz, Z., *J. Chem. Phys.*, **75** 1675, (1981), Dynamic deuterium NRM in liquid-crystalline solvents: Ring inversion of cyclohexane-D12.
932. Pownall, H. J., Mantulin, W. W., Sable, H. Z., Lister, M. D., and Hancock, A. J., *Bophys. J.*, **33** 162, (1981), Thermotropic properties of cyclopentanoid analogs of dipalmitoyl lecithin.
933. Praefcke, K., and Schmidt, D., *Chem. Zeitun.*, **105** 8, (1981), (GE) Trans-4-cyanocyclohexanol derivatives with liquid-crystalline properties.
934. Praefcke, K., and Schmidt, D., *Chem. Zeitun.*, **105** 61, (1981), (GE) Trans-1.4-cyclohexanediol derivatives with liquid-crystal properties.
935. Praefcke, K., and Schmidt, D., *Z. Naturfo. B*, **36** 375, (1981), (GE) Liquid-crystal compounds .11. First liquid-crystal azulene derivatives.
936. Prasad, J. S., and Shivaprak., N. C., *Molec. Cryst.*, **74** 209, (1981), Optical and X-ray studies of some liquid-crystals naturally occurring in plants.
937. Prasad, S. N., and Venugopa., S., *J. Chem. Phys.*, **75** 3033, (1981), Molecular flexibility and orientational statistics of liquid-crystals: Raman study of 7-CB and 8-OCB.
938. Price, A. H., and Buka, A., *Advances in Liquid-Crystal Research and Applications*, p. 267, Pergamon, 1981, Dielectric dispersions in nematogens.
939. Priest, R. G., *Phys. Rev. A*, **23** 3279, (1981), Improved analysis of the Landau-de-Gennes model for the nematic state.
940. Pucci, R., and March, N. H., *J. Chem. Phys.*, **74** 1373, (1981), Liquid-crystal model for hydrocarbons under shock wave conditions.
941. Ragan, S., and Marsh, H., *Fuel*, **60** 522, (1981), Carbonization and liquid-crystal (mesophase) development .22. Micro-strength and optical textures of cokes from coal-pitch co-carbonization.
942. Raines, R. D., Heffner, W. R., Cladis, P. E., and Marcus, M., *Molec. Cryst.*, **72** 263, (1981), The dielectric constant of a cyanohenyl-thiobenzoate.
943. Rajewska, A., Jablonka, A., Sikorska, D., and Sobaszek, A., *Phys. St. S. B.*, **105** K35, (1981), Neutron critical scattering in the nematic phase and at the nematic isotropic liquid transition in PAA.
944. Rajewska, A., Jablonka, A., Sikorska, D., and Sobaszek, A., *Advances in Liquid-Crystal Research and Applications*, p. 109, Pergamon, 1981, Neutron critical scattering in PAA.
945. Rao, A. S. N., Murty, P. N., Murty, C. R. K., and Reddy, T. R., *Z. Naturfo. A.*, **36** 634, (1981), EPR-study of the molecular ordering in the liquid-crystal: HBT.
946. Rao, A. S. N., Murty, P. N., Murty, C. R. K., and Reddy, T. R., *Phys. St. S. A.*, **68** 373, (1981), ESR-study of molecular ordering in liquid-crystal: NOBA.
947. Ratna, B. R., Shashidhar, R., and Rao, K. V., *Molec. Cryst.*, **74** 143, (1981), Experimental studies of the electrical-conductivity of two re-entrant nematogens.
948. Ratz, J. L., and Bailin, P. L., *J. Derm. Surg.*, **7** 27, (1981), Liquid-crystal thermography in determining the lateral extents of basal-cell carcinomas.
949. Razinaqv., K., *J. Chem. Phys.*, **74** 2658, (1981), Photoselection in uniaxial liquid-crystals: The advantages of using saturating light-pulses for the determination of orientational order.
950. Reiffenr., V., and Schneider, F., *Z. Naturfo. A*, **36** 1006, (1981), Synthesis and mesomorphic properties of 4.4-di-n-alkyl-bibicyclo(2.2.2)octanes.
951. Reiter, A. V., Sevostya., V. P., and Petrova, O. V., *Ind. Lab. R.*, **47** 345, (1981), Analysis of liquid-crystal azoxybenzenes by the TLC technique.
952. Ricard, L., and Prost, J., *J. Physique*, **42** 861, (1981), Critical behavior of second sound near the smectic-A nematic phase transition.
953. Richter, L., Demus, D., and Sackmann, H., *Molec. Cryst.*, **71** 269, (1981), Liquid-crystalline phases in the homologous series of terephthalylidene-bis-(4-n-alkylanilines).

954. Rinaldi, P. L., *Abs. Pap. A. C. S.*, **182** 238, (1981), Deuterium-NMR studies of 1-phenylethanol in liquid-crystalline MBBA.
955. Ringsdorf, H., and Schneller, A., *Br. Pol. J.*, **13** 43, (1981), Synthesis, structure and properties of liquid-crystalline polymers.
956. Riumtsev, E. I., Rotinian, T. A., Kovshik, A. P., Polushin, S. G., Bolotin, B. M., and Tsvetkov, V. N., *D. A. N. SSSR*, **257** 1121, (1981), (RS) Dielectric-dispersion in liquid-crystals with negative anisotropy.
957. Riumtsev, E. I., Rotinian, T. A., Kovsik, A. P., Onishchu., S. A. and Tsvetkov, V. N., *D. A. N. SSSR*, **260** 77, (1981), (RS) Relaxation phenomena and electrooptical properties of liquid-crystals near the isotropic nematic transition temperature.
958. Riviere, D., and Levy, Y., *Molec. Cryst.*, **64** 177, (1981), Analysis of the optical reflection on an inhomogeneous and anisotropic medium: Application to a Poiseuille flow in a nematic liquid-crystal.
959. Rochev, V. Y., Kevdin, O. P., and Parak, F., *Advances in Liquid-Crystal Research and Applications*, p. 363, Pergamon, 1981, Moessbauer spectroscopy of thermotropic smectic liquid-crystals: On the formation of complexes between label and liquid-crystal molecules.
960. Rochev, V. Y., Kevdin, O. P., Kivrina, N. K., Gilbukh, E. A., and May, L., *Advances in Liquid-Crystal Research and Applications*, p. 777, Pergamon, 1981, Moessbauer spectroscopy of the cephalin + SnCl₄ system.
961. Ronca, G., and Yoon, B. Y., *B. Am. Phys. S.* **26** 228, (1981), Theory of nematic systems of semiflexible polymers.
962. Roscisz., K., *Act. Ph. Pol. A*, **59** 611, (1981), The critical enhancement of the nematic elastic constants at the nematic to smectic-A phase transition.
963. Rosenbaum, T. F., and Stein, D. L., *Am. J. Phys.*, **49** 128, (1981), Topological physics illustrated in the laboratory.
964. Rosenblatt, C., and Ronis, D., *Phys. Rev. A*, **23** 305, (1981), Unified model of the smectic-A nematic and isotropic phases for bulk interfaces and thin-films .2. Interfaces and thin-films.
965. Rosenblatt, C., *J. Physique L.*, **42** 9, (1981), Magnetically induced nematic smectic-A tricritical point.
966. Rosenblatt, C., *B. Am. Phys. S.*, **26** 395, (1981), Magnetic field effects at the nematic smectic-A transition: Some model calculations.
967. Rosenblatt, C., *Phys. Lett. A*, **83** 221, (1981), Magnetically induced nematic phase at a smectic-A isotropic transition.
968. Rosenblatt, C., *Phys. Rev. A*, **24** 2236, (1981), Magnetic field dependence of the nematic isotropic transition temperature.
969. Roy, D. N. G., Rao, D. V. G. L. N., and Bronk, H., *Appl. Phys. L.*, **39** 474, (1981), Optical pulse compression in a cholesteric liquid-crystal.
970. Rubin, P. L., *Sov. Ph. Je. R.*, **54** 1756, (1981), Relaxation processes and propagation of ultrasound in nematic liquid-crystals.
971. Rouliene, J., Adomenas, P., Tubelyte, A., Seskausk., V., and Grozhik, V. A., *Molec. Cryst.*, **78** 211, (1981), Liquid-crystalline 4-alkylamino-4-cyanobiphenyls.
972. Rys, F., and Helfrich, W., *Helv. Phys. A.*, **54** 330, (1981), (GE) Defect lines model for the description of the smectic-A nematic phase transition in liquid-crystals.
973. Sackmann, H., *Advances in Liquid-Crystal Research and Applications*, p. 27, Pergamon, 1981, Polymorphism and structure in non-amphiphilic liquid-crystals.
974. Sadik, J., Rothen, F., Bestgen, W., and Duboisvi., E., *J. Physique*, **42** 915, (1981), Theoretical study of the instability of a homeotropic nematic submitted to an elliptical shear.
975. Sadik, J., and Rothen, F., *Helv. Phys. A.*, **54** 657, (1981), (FR) Instability of a nematic liquid-crystal subjected to an elliptic shearing.

976. Saeva, F. D., *Makrom. Chem.*, **1981** 58, (1981), Photochemical and spectroscopic behavior of some liquid-crystal polymer systems.
977. Safinya, C. R., Birgeneau, R. J., Litster, J. D., and Neubert, M. E., *Phys. Rev. L.*, **47** 668, (1981), Critical fluctuations near a nematic smectic-A smectic-C multicritical point.
978. Sage, I., *Microel. Rel.*, **21** 471, (1981), Recent advances in liquid-crystal materials.
979. Sage, I., *Microelectr.*, **12** 30, (1981), Recent advances in liquid-crystal materials.
980. Saha, S. K., *Opt. Commun.*, **37** 373, (1981), Phase matched field-induced second-harmonic generation in cholesteric liquid-crystals.
981. Sakhaudt., V. G., Gantsev, S. K., and Ippolito., G. O., *Sov. Med.*, **1981** 61, (1981), (RS) Liquid-crystal thermography in diagnosing the adhesive disease of the peritoneum.
982. Sakurai, I., and Kwayanagi, S., *Molec. Cryst.*, **67** 89, (1981), Phase transitions in single crystals of L-DPPC and DL-DPPC.
983. Salamon, Z., and Skibinsk., A., *Molec. Cryst.*, **65** 51, (1981), Fluorescence properties of methine dyes in a nematic liquid-crystal matrix.
984. Salamon, Z., Bauman, D., and Skibinsk., A., *Molec. Cryst.*, **72** 27, (1981), Chromatic contrast as a criterion for evaluation of pigmented liquid-crystal displays.
985. Samulski, E. T., and Deloche, B., *Abs. Pap. A. C. S.*, **182** 135, (1981), Short-range nematic-like orientational order in strained elastomers: A deuterium magnetic resonance study.
986. Sanson, A., and Ptak, M., *J. Physique*, **42** 331, (1981), (FR) An ESR study of the 4-4-di-heptyloxyazoxybenzene smectic-C phase organization.
987. Sapper, H., Cameron, D. G., and Mantsch, H. H., *Can. J. Chem.*, **59** 2543, (1981), The thermotropic phase behavior of ascorbyl palmitate: An infrared spectroscopic study.
988. Sarkisya., A. T., Dingchya., A. E., and Badalyan, E. G., *Zh. Fiz. Khim.*, **55** 1796, (1981), (RS) The effect of 2.2.6.6-tetramethyl-4-hydroxypiperidine-1-oxide on viscoelastic properties of liquid-crystals of p-methoxybenzylidene-p-butaniline and ZHK-404.
989. Sarma, B. K., Satyanan., G., and Murty, C. R. K., *Molec. Cryst.*, **64** 155, (1981), Detection of a new liquid-crystal phase in a binary system by thermal phase studies.
990. Sarma, B. K., Cheng, B. Y., Ketterso., J. B., and Bhattach., S., *B. Am. Phys. S.*, **26** 305, (1981), Acoustic detection of a propagating shear wave in a smectic-A liquid-crystal.
991. Sasaki, A., Inoda, M., and Ishibash., T., *Molec. Cryst.*, **65** 39, (1981), Light transmission and texture changes of mixed liquid-crystals by temperature variations.
992. Sasaki, A., Inoda, M., Watanabe, H., and Ishibash., T., *Molec. Cryst.*, **74** 149, (1981), Optic effects of smectic-cholesteric mixed liquid-crystals.
993. Sasaki, T., *Molec. Cryst.*, **281**, (1981), Liquid-crystal display research in Japan.
994. Saski, S., Miyasaka, K., and Uematsu, I., *Polym. Bull.*, **4** 597, (1981), Molecular aggregation of poly(gamma-phenacyl L-glutamate) in n,n-dimethylformamide.
995. Sato, S., and Labes, M. M., *J. Appl. Phys.*, **52** 3941, (1981), Multicolor fluorescent display by scattering states in liquid-crystals.
996. Sato, S., and Ueda, H., *Jap. J. A. Phys. L.*, **20** 511, (1981), Effects of surface acoustic-waves of molecular orientation in nematic liquid-crystals.
997. Sato, S., *Jap. J. A. Phys.*, **20** 1989, (1981), Photovoltaic effects in MBBA cells containing organic dyes.
998. Saupe, A., *J. Chem. Phys.*, **75** 5118, (1981), Elastic and flow properties of biaxial nematics.
999. Savithram., K. L., and Madhusud., N. V., *Molec. Cryst.*, **74** 243, (1981), Scaled particle theory of a system of hard right circular cylinders.

1000. Schadt, H. P., and Osman, M. A., *J. Chem. Phys.*, **75** 880, (1981), Elastic constants and molecular association of cyano-substituted nematic liquid-crystals.
1001. Schadt, M., *Phys. Lett. A*, **81** 355, (1981), Dielectric heating and relaxations in smectic-A liquid-crystals.
1002. Schadt, M., and Gerber, P. R., *Molec. Cryst.*, **65** 241, (1981), Dielectric electro-optical and phase-change properties of liquid-crystal guest-host displays.
1003. Schadt, M., *Molec. Cryst.*, **66** 319, (1981), Dielectric heating and relaxations in nematic liquid-crystals.
1004. Schadt, M., and Gerber, P. R., *SID Dig.*, **12** 80, (1981), Physical properties, multiplexability, blending and electrooptical performance of liquid-crystal mixtures for TN-LCDs.
1005. Scheffer, T. J., *Advances in Liquid-Crystal Research and Applications*, p. 1145, Pergamon, 1981, Bistability effects in twisted nematic layers.
1006. Scheuble, B. S., Baur, G., and Meier, G., *Molec. Cryst.*, **68** 57, (1981), Elastic properties of liquid-crystalline mixtures in relation to their molecular composition.
1007. Schifferde, M., Aichmann, H., and Nimitz, G., *J. Chem. Phys.*, **75** 1379, (1981), Nuclear magnetic and dielectric relaxation of a homologous series.
1008. Schipper, P. E., and Norden, B., *Chem. Phys.*, **57** 365, (1981), Absorption anisotropy of cubic or randomly oriented chromophores in anisotropic solvents—dispersion induced linear dichroism (DILD).
1009. Schmiedel, H., *Ann. Physik.*, **38** 249, (1981), (GE) Negative time evolution in NMR experiments on liquid-crystals.
1010. Schneider, F., and Sharma, N. K., *Z. Naturfo. A*, **36** 62, (1981), Induced smectic phases .1. Polymorphism in binary mixtures of alkyloxybenzylidene-alkylanilines with alkyl-cyanobiphenyls and alkyloxy-cyanobiphenyls.
1011. Schneider, F., and Sharma, N. K. *Z. Naturfo. A*, **36** 1086, (1981), Induced smectic phases .2. Influence of the amino substituent of the induction of smectic phases.
1012. Schulze, H., Burkensrod., W., and Werner, C., *Exp. Tech. Ph.*, **29** 53, (1981), Propagation of ultrasound in the isotropic phase of some thermotropic liquid-crystals.
1013. Scudieri, F., *Opt. Commun.*, **37** 37, (1981), Optical measurement of K22/K11 divergence in nematics.
1014. Scudieri, F., *App. Optics*, **20** 2643, (1981), Nematic liquid-crystals: Interferometric determination of the elastic constant ratio K22/K11.
1015. Seki, H., Shishido, C., Uchida, T., and Wada, M., *Molec. Cryst.*, **66** 209, (1981). Light-stability of guest-host cells.
1016. Seleznev, S. A., *Biofizika*, **26** 257, (1981), (RS) Phase transitions in membranes and model liquid-crystalline systems.
1017. Seleznev, S. A., Mineyev, L. I., and Chistyako., I. G., *Advances in Liquid-Crystal Research and Applications*, p. 759, Pergamon, 1981, An optical diffraction modeling discriminates between two viewpoints on phase transition in lipid-water systems.
1018. Sen, A., Williams, W. P., and Quinn, P. J., *Bioc. Biop. A.*, **663** 380, (1981), The structure and thermotropic properties of pure 1,2-diacylgalactosylglycerols in aqueous systems.
1019. Senatra, D., Gambi, C. M. C., and Neri, A. P., *J. Coll. I. Sc.*, **79** 443, (1981), Thermally simulated dielectric polarization release in water-in-oil microemulsions.
1020. Senatra, D., *Nuov. Cim. B*, **64** 151, (1981), Temperature dependent relaxation processes and optical properties of micro emulsion mesomorphic structures.
1021. Senbetu, L., and Woo, C. W., *B. Am. Phys. S.*, **26** 304, (1981), Isotropic nematic transition: Landau-de-Gennes versus molecular theory.

1022. Sergot, P., Laupretr., F., Louis, C., and Virlet, J., *Polymer*, **22** 1150, (1981), Proton-decoupled C-13 solid state NMR: A lineshape study of molecular-motion in a mesomorphic aryl-aliphatic polyester.
1023. Seurin, P., Guillon, D., and Skoulios, A., *Molec. Cryst.*, **71** 37, (1981), (FR) Dissymmetric smectogens .1. Structure of the smectic-A phase of p,n-alkyloxybenzylidene-p-cyanoanilines.
1024. Seurin, P., Guillon, D., and Skoulios, A., *Molec. Cryst.*, **71** 51, (1981), (FR) Dissymmetric smectogens .2. Structure of crystalline and smectic phases of parahalogenated p-n-alkyloxybenzylidene-anilines.
1025. Seurin, P., Guillon, D., and Skoulios, A., *Molec. Cryst.*, **65** 85, (1981), (FR) Dissymmetric smectogens .3. Synthesis and mesomorphic properties of para-substituted p-n-alkoxybenzylideneanilines.
1026. Sharma, N. K., Weissflog, W., Richter, L., Diele, S., Walther, B., Sackmann, H., and Demus, D., *Advances in Liquid-Crystal Research and Applications*, p. 3, Pergamon, 1981, Synthesis and polymorphism of the homologous series of the 4,4-bis-n-alkylamino-biphenyls.
1027. Shashidhar, R., Kleinhans, H. D., and Schneider, G. M., *Molec. Cryst.*, **72** 119, (1981), Effect of molecular ordering on the nematic isotropic transition in reentrant nematic mixtures: High pressure DTA and optical study.
1028. Shashidhar, R., Herrmann, J., and Kleinhans, H. D., *Molec. Cryst.*, **72** 117, (1981), Observation of a smectic-A-smectic-A transition at high pressures: Optical microscopy and DTA studies on 6OPDOP.
1029. Shashidhar, R., and Kleinhans, H. D., *Molec. Cryst.*, **64** 217, (1981), High pressure study of 4-n-hexyloxyphenyl-4-n-decyloxybenzoate (6OPDOB).
1030. Shen, J., and Woo, C. W., *Phys. Rev. A*, **24** 493, (1981), Isotropic nematic transition in an external field.
1031. Shen, J., Lin, L., Yu, L., and Woo, C. W., *Molec. Cryst.*, **70** 301, (1981), Molecular theory of liquid-crystals including anisotropic repulsion.
1032. Sheng, P., and Shen, Y. R., *B. Am. Phys. S.*, **26** 275, (1981), Nematic-isotropic phase-transition at substrate-liquid-crystal interface.
1033. Shibaev, V. P., Finkelma., H., Kharitono., A. V., Portugal, M., Plate, N. A., and Ringsdorf, H., *Vys. Soed. A*, **23** 919, (1981), (RS) Liquid-crystalline copolymers of cholesteric type.
1034. Shibaev, V. P., Konstromi., S. G., Talroze, R. V., and Plate, N. A., *D. A. N. SSSR.*, **259** 1147, (1981), (RS) Orientational effects in thermotropic liquid-crystal polymers.
1035. Shibaev, V. P., Moiseenk., V. M., Smolyans., A. L., and Plate, N. A., *Vys. Soed. A*, **23** 1969, (1981), (RS) Crystalline and liquid-crystalline structure of polymers with biphenyl fragments in side branchings.
1036. Shibaev, V. P., *Advances in Liquid-Crystal Research and Applications*, p. 869, Pergamon, 1981, Structure of thermotropic smectic polymers.
1037. Shibayam., K., and Ono, H., *J. Syn. Org. J.*, **39** 561, (1981), (JA) Functional organic materials for electronics industries.
1038. Shichijo, S., and Takemura, T., *Molec. Cryst.*, **78** 251, (1981), Brillouin scattering in the isotropic phase of nematic liquid-crystals under high pressure.
1039. Shimamura, K., White, J. L., and Fellers, J. F., *J. Appl. Poly.*, **26** 2165, (1981), Hydroxypropylcellulose, a thermotropic liquid-crystal: Characteristics and structure development in continuous extrusion and melt spinning.
1040. Shimomura, T., and Kobayashi, S., *Appl. Optics*, **20** 819, (1981), Color contrast criteria in a guest-host mode liquid-crystal display.
1041. Shimomura, T., and Kobayashi, S., *Molec. Cryst.*, **66** 183, (1981), Criteria of color contrast in a nematic liquid-crystal display.
1042. Shimomura, T., *Jap. J. A. Phy. L.*, **20** 575, (1981), Brightness luminance ratio of a liquid-crystal display in a transmission type.

1043. Shimomura, T., *Appl. Optics*, **20** 4156, (1981), Color gamut of a nematic liquid-crystal display under ambient illumination.
1044. Shin, L. B., Brown, G. H., and Mann, J. A., *Abs. Pap. A. C. S.*, **180** 22, (1981), Surface fluctuations of nematic liquid-crystals.
1045. Shivaprak., N. C., Narasimh., B., and Prasad, J. S., *Molec. Cryst.*, **76** 133, (1981), Vibrational spectra of cholesteric liquid-crystals.
1046. Shivaprak., N. C., and Prasad, J. S., *Molec. Cryst.*, **74** 215, (1981), A theoretical investigation of the lattice of symmetric and asymmetric rigid rods with anisotropic dispersion forces and rigid body repulsions.
1047. Shiyanov., S. V., *Urk. Fiz. Zh.*, **26** 137, (1981), (RS) On the absorption band shape of the uniaxial liquid-crystal optical spectra.
1048. Shsash, S. K., *Opt. Commun.*, **37** 373, (1981), Phase-matched field induced second-harmonic generation in cholesteric liquid-crystals.
1049. Shtrikman, S., and Wohlfart., E. P., *Phys. Lett. A*, **85** 467, (1981), The theory of the Vogel-Fulcher law of spin glasses.
1050. Sidorovi., A. V., Baklagin., Y. G., Stadnik, V. P., Strunnik., A. Y., and Zhukova, T. I., *Vyso. Soed. A*, **23** 1010, (1981), (RS) Mesomorphic state of polyamic acids.
1051. Siedler, L. T., and Hyde, A. J., *Advances in Liquid-Crystal Research and Applications*, p. 561, Pergamon, 1981, Determination of viscosity coefficients in a nematic liquid-crystal.
1052. Sigaud, G., Hardouin, F., Achard, M. F., and Levelut, A. M., *J. Physique*, **42** 107, (1981), A new type of smectic-A phase with long-range modulation in the layers.
1053. Sigaud, G., Tinh, N. H., Hardouin, F., and Gasparoux, H., *Molec. Cryst.*, **69** 81, (1981), Occurrence of reentrant nematic and reentrant smectic-A phase in mesogenic series.
1054. Siklos, L., and Szabon, J., *Advances in Liquid-Crystal Research and Applications*, p. 237, Pergamon, 1981, Calorimetric determination of the impurity content of liquid-crystals.
1055. Simova, P., and Petrov, M., *J. Phys. D*, **14** 14, (1981), Electrohydrodynamic instabilities in nematics with small positive anisotropy and smectic-C order.
1056. Simova, P., and Petrov, M., *Molec. Cryst.*, **74** 275, (1981), Dynamic scattering with storage in smectic-C and nematics with smectic-C ordering.
1057. Simova, P., Petrov, M., Angelov, A., and Kalafatov, V., *Bulg. J. Phys.*, **8** 169, (1981), Modulation of diffracted light by domains in smectic-C liquid-crystals.
1058. Simova, P., Petrov, M., and Pushkarov, K., *Bulg. J. Phys.*, **8** 243, (1981), Modulation of the light diffracted from the domain structure in MBBA.
1059. Singer, L. S., *Fuel*, **60** 839, (1981), Carbon-fibers from mesophase pitch.
1060. Sinnadur., F. N., and Wilson, K. J., *J. Phys. E*, **14** 83, (1981), Micro-circuit operation observed by the stimulation of electro-optic responses in nematic liquid-crystals.
1061. Sirutkaiti, R., and Adomenas, P., *Advances in Liquid-Crystal Research and Applications*, p. 1023, Pergamon, 1981, Polyfluoro-substituted liquid-crystals.
1062. Sivardiere, J., *J. Phys. C*, **14** 3829, (1981), The single-triplet Ising-model .1. Application to simple fluids, nematic mixtures and He-3 He-4 mixtures.
1063. Sivardiere, J., *Phys. St. S. B.*, **103** 823, (1981), Lattice-gas model for a simple fluid: Condensation, orientation and solidification.
1064. Sizova, N. L., Gorina, I. I., and Chistyako., I. G., *Molec. Cryst.*, **67** 253, (1981), The investigation of heat, release in slip bands consisting of edge or screw dislocations.
1065. Skarp, K., Carlsson, T., Lagerwall, S. T., and Stebler, B., *Molec. Cryst.*, **66** , 9, (1981), Flow properties of nematic 8CB: An example of diverging and vanishing α -3.

1066. Skarp, K., Carlsson, T., Dahl, I., Lagerwall, S. T., and Stebler, B., *Advances in Liquid-Crystal Research and Applications*, p. 573, Pergamon, 1981, Anomalous shear flow alignment in nematic 8CB.
1067. Sluckin, T. J., *Molec. Phys.*, **43** 817, (1981), Density functional theory for simple molecular fluids.
1068. Sluckin, T. J., *Macromolec.*, **14** 1676, (1981), Influence of flow on the isotropic nematic transition in polymer solutions: A thermodynamic approach.
1069. Smith, G. W., *Molec. Cryst.*, **65** 285, (1981), Melting behavior of ideal ascending solid solutions.
1070. Smith, T. H., and Vanhecke, G. R., *Molec. Cryst.*, **68** 23, (1981), Dilatometric studies on columnar mesogens: Benzene hexa-*n*-alkanoates.
1071. Snell, A. J., Mackenzi, K. D., Spear, W. E., Lecomber, P. G., and Hughes, A. J., *Appl. Phys.*, **24** 357, (1981), Application of amorphous silicon field-effect transitions in addressable liquid-crystal display panels.
1072. Soffer, B. H., Margerun, J. D., Lackner, A. M., Boswell, D., Tanguay, A. R., Strand, T. C., Sawchuk, A. A., and Chavel, P., *Molec. Cryst.*, **70** 145, (1981), Variable grating mode liquid-crystal device for optical processing and computing.
1073. Sohma, J., Tabata, M., Tyama, H., and Imanari, T., *Molec. Cryst.*, **68** 89, (1981), D-NMR Study of Orientation of D-labeled benzyl group in PBLG liquid-crystal.
1074. Sojak, L., Kraus, G., Ostrovski, B. I., Kralovic, E., and Krupcik, J., *J. Chromat.*, **206** 463, (1981), (GE) High-resolution gas-chromatography with liquid-crystal glass capillaries .1. Separation of hydrocarbon isomers on nematic mesophases.
1075. Sojak, L., Kraus, G., Ostrovski, B. I., Kralovic, E., and Krupcik, J., *J. Chromat.*, **206** 475, (1981), (GE) High-resolution gas-chromatography with liquid-crystal glass capillaries .2. Separation of hydrocarbon isomers on smectic-A and C modifications.
1076. Sojak, L., Kraus, G., Ostrovski, B. I., Kralovic, E., and Farkas, P., *J. Chromat.*, **219** 225, (1981), (GE) High-resolution gas-chromatography with liquid-crystal glass capillaries .3. Separation of hydrocarbon isomers on cholesteric mesophase.
1077. Sonin, A. S., and Shibaev, I. N., *Zh. Fiz. Khim.*, **55** 24, (1981), (RS) Optical properties of finely divided pseudo-capsular cholesteric films: The effect of some changes of cholesteric concentration in pseudo-capsular film on temperature range of selective reflection.
1078. Sonin, A. S., and Shibaev, I. N., *Zh. Fiz. Khim.*, **55** 1263, (1981), (RS) Structural ordering and the properties of cholesteric pseudocapsuled films.
1079. Sprokel, G. J., *Molec. Cryst.*, **68** 39, (1981), The reflectivity of a liquid-crystal cell in a surface plasmon experiment.
1080. Sprokel, G. J., Santo, R., and Swalen, J. D., *Molec. Cryst.*, **68** 29, (1981), Determination of the surface tilt angle by attenuated total reflection.
1081. Stecki, J., and Kloczkow, A., *Molec. Phys.*, **42** 51, (1981), On the stability of the isotropic phase towards nematic and smectic-A formation.
1082. Stephens, D. S., and Binsch, G., *Molec. Phys.*, **43** 697, (1981), The molecular structure of cyclopentene in solution as obtained from a nematic phase proton NMR-study.
1083. Stieb, A. E., *Displays*, **2** 281, (1981), A figure of merit for brightness and contrast of reflective alphanumeric displays.
1084. Straughan, B., *J. Mecanique*, **19** 629, (1981), Stability of uniform equilibrium states of a nematic liquid-crystal.
1085. Strzelec, L., and Liebert, L., *Eur. Polym. J.*, **17** 1271, (1981), (FR) Influence of structure on the mesomorphic properties of polyesters .3.

1086. Stumpel, J., Nicksch, A., and Eibl, H., *Biochem.*, **20** 662, (1981), Calorimetric studies on saturated mixed-chain lecithin-water systems: Nonequivalence of acyl chains in the thermotropic phase transition.
1087. Su, C. C., Park, J. Y., Alkan, M. H., Corrigan, O. I., Hofmann, A. F., Danzinge, R. G., and Higuchi, W. I., *J. Pharm. Sci.*, **70** 713, (1981), Mesophase formation during invitro cholesterol gallstone dissolution: A specific effect of urso-deoxycholic acid.
1088. Sugar, I. P., and Gyoergyi, S., *Advances in Liquid-Crystal Research and Applications*, p. 805, Pergamon, 1981, Static field induced phase transitions in lipid bilayers and their role in the regulation of transport processes.
1089. Sugimura, A., Uamamoto, N., and Kawamura, T., *Jap. J. A. Phy.*, **20** 1343, (1981), High surface ordering of nematic liquid-crystal using periodicity grating.
1090. Sungitta, P., Limcharoen, P., Tang, I. M., and Phaovibul, O., *Molec. Cryst.*, **71** 293, (1981), Refractive indices of p-azoxyanisole (PAA), p-p-di-n-pentyloxy-azoxybenzene (PPAB) and their mixtures.
1091. Suzuki, K., Ishibash., T., Satoh, M., and Isogai, T., *IEEE Device*, **28** 719, (1981), A multiplexed phase-change type color LCD.
1092. Suzuki, M., and Sasaki, I., *Chem. Pharm.*, **29** 585, (1981), Inclusion compounds of cyclodextrin and azo dyes: Formation of a liquid-crystal.
1093. Szabo, J. A., Zoltai, A. I., Agocs, P. M., and Motika, G., *Advances in Liquid-Crystal Research and Applications*, p. 1049, Pergamon, 1981, Synthesis and examination of the liquid-crystalline properties of cholesterol and thiocholesterol ethers.
1094. Szabon, J., and Janossy, I., *Advances in Liquid-Crystal Research and Applications*, p. 229, Pergamon, 1981, Studies on induced smectic-A phases, I. Transitional entropies of binary mixtures of smectogenes and cholesterolenes.
1095. Szanto, A. E., *Advances in Liquid-Crystal Research and Applications*, p. 1273, Pergamon, 1981, Contact thermography in brain ischaemi of extracerebral origin.
1096. Tabiryan, N. V., and Zeldovich, B. Y., *Molec. Cryst.*, **69** 19, (1981), The orientational optical nonlinearity of liquid-crystals .2. Cholesterics.
1097. Tabiryan, N. V., and Zeldovich, B. Y., *Molec. Cryst.*, **69** 31, (1981), The orientational optical nonlinearity of liquid-crystals .3. Smectics.
1098. Tachiban., T., Mori, T., and Hori, K., *B. Chem. S. J.*, **54** 73, (1981), Chiral mesophases of 12-hydroxyoctadecanoic acid in jelly and in the solid-state .2. A new type of mesomorphic solid-state.
1099. Takahashi, S., Morimoto, H., Takai, Y., Sonogash., K., and Hagihara, N., *Molec. Cryst.*, **72** 101, (1981), Lyotropic liquid-crystalline materials containing palladium and nickel.
1100. Takahashi, S., Shimokawa, O., Inoue, H., Uehara, K., Hirose, T., and Kikuyama, A., *SID Dig.*, **12** 86, (1981), A liquid-crystal display panel using polymer films.
1101. Takahashi, Y., Uchida, T., and Wada, M., *Molec. Cryst.*, **66** 171, (1981), The effect of various parameters on TN-LCDs.
1102. Takahashi, Y., and Uchida, T., *Oyo Buturi*, **50** 50, (1981), The effects of optical anisotropy and cell thickness on TN-LCDs.
1103. Takeuchi, F., Okazaki, A., Kawasaki, K., and Yamada, H., *Molec. Cryst.*, **66** 83, (1981), On the crosstlk in direct-driving of large area TN-LCDs.
1104. Talroze, R. V., Kostromi., S. G., Shibaev, V. P., Plate, N. A., Kresse, H., Sauer, K., and Demus, D., *Makro. Ch. R. C.*, **2** 305, (1981), Thermotropic liquid-crystalline polymers .5. Electro-optical phenomena in liquid-crystalline polymers.
1105. Talroze, R. V., Sinitzyn, V. V., Shibaev, V. P., and Plate, N. A., *Advances in Liquid-Crystal Research and Applications*, p. 915, Pergamon, 1981, Influence of the structure of mesogenic groups on the structure and dielectric properties of the comb-like liquid-crystalline azomethyne-containing polymers.

1106. Tamamush., B., *Biorheology*, **18** 667, (1981), Liquid-crystalline structures in relation to biorheological phenomena.
1107. Tan, H. T., *B. Am. Phys. S.*, **26** 305, (1981), Onsager-type molecular theory of liquid-crystals.
1108. Tan, M. Q., and Hu, K. S., *Molec. Cryst.*, **68** 277, (1981), Effect of temperature on the fluidity and ordering of the rod outer segment membrane of gekko gekko.
1109. Tanaka, J., Akabori, K., and Toyoshima, Y., *Molec. Cryst.*, **74** 287, (1981), Effect of the membrane boundary potential on the phase transition of dipalmitoylphosphatidylcholine bilayer liposomes.
1110. Tanaka, Y., Tsuchiya, H., Suzuki, M., Tsuda, K., Takano, J., and Kurihara, H., *Molec. Cryst.*, **68** 113, (1981), Photoreaction of cholesteryl trans-cinnamate in mesomorphic states.
1111. Tanguay, A. R., Strand, T. C., Chavel, P., Soffer, B. H., and Sawchuk, A. A., *J. Opt. Soc.*, **71** 1630, (1981), Theoretical and experimental polarization properties of the variable grating mode liquid-crystal structure.
1112. Tarczon, J. C., and Miyano, K., *Phys. Rev. L.*, **46** 119, (1981), Shear mechanical properties of freely suspended liquid-crystal films, in the smectic-A and smectic-B phases.
1113. Tarczon, J. C., and Miyano, K., *B. Am. Phys. S.*, **26** 275, (1981), Elastic properties of thin freely-suspended liquid-crystal films.
1114. Tarr, C. E., and Vosman, F., *Molec. Cryst.*, **66** 151, (1981), Pure dipolar nuclear-spin-lattice relaxation in nematic liquid-crystals.
1115. Tchornai, Z. A., Molotchik, V. A., Smarina, E. I., and Lidine, R. A., *J. Therm. Ana.*, **21** 263, (1981), (FR) Polymorphism of nematogenes in the solid-state, n-butyl-4-phenyl-n-4-hexyloxy-benzoate: Organic-solvents.
1116. Terauchi, H., *Molec. Cryst.*, **70** 79, (1981), Ferroelectric phase-transition in liquid-crystal.
1117. Thaker, N. N., and Trivedi, K. N., *I. J. Chem. A.*, **20** 291, (1981), Effect of lateral substitution in a mesomorphic homologous series derived from p-(p-n-alkoxybenzoyloxy)benzaldehydes and meta-xylydine.
1118. Thaker, N. N., and Trivedi, K. N., *I. J. Chem. A.*, **20** 560, (1981), Mesomorphic heterocyclic homologous series: Cholesteryl esters of 7-n-alkoxycoumarin-3-carboxylic acids and ethyl-esters of 7-(p-nonylalkoxybenzoyloxy)coumarin-3-carboxylic acids.
1119. Thampi, K. R., Ramakris., V., and Kuriacos., J. C., *I. J. Tech.*, **19** 87, (1981), Photoelectrochemical cell with zinc-oxide-liquid-crystal electrode.
1120. Thurston, R. N., and Almgren, R. J., *J. Physique*, **42** 413, (1981), Liquid-crystals and geodesics.
1121. Thurston, R. N., *J. Physique*, **42** 419, (1981), Stability of nematic liquid-crystal configurations.
1122. Thurston, R. N., and Berreman, D. W., *J. Appl. Phys.*, **52** 508, (1981), Equilibrium and stability of liquid-crystal configurations in an electric field.
1123. Thurston, R. N., *J. Appl. Phys.*, **52** 3040, (1981), Unit sphere description of liquid-crystal configurations.
1124. Tiddy, G. J. T., Rendall, K., and Galsworthy, P., *Molec. Cryst.*, **72** 147, (1981), Lyotropic mesophase behaviour of n-C₁₆H₃₃EO₃: Evidence for two "V2" phases.
1125. Tikhomirov, N. A. and Guinsberg, A. V., *Advances in Liquid-Crystal Research and Applications*, p. 651, Pergamon, 1981, Behaviour of the nematic liquid-crystal drop on the anisotropic surface.
1126. Tinh, N. H., Malthete, J., and Destrade, C., *Molec. Cryst.*, **64** 291, (1981), Reentrant phenomenon in disc-like liquid-crystal.
1127. Tinh, N. H., Gasparoux, H., and Destrade, C., *Molec. Cryst.*, **68** 101, (1981), An homologous series of disc-like mesogens with nematic and columnar polymorphism.

1128. Tinh, N. H., Malthete, J., and Destrade, C., *J. Physique L.*, **42** 417, (1981), Reentrant nematic and columnar phases in disc-like liquid-crystals at atmospheric pressure.
1129. Tinh, N. H., Sigaud, G., Achard, M. F., Gasparoux, H., and Hardouin, F., *Advances in Liquid-Crystal Research and Applications*, p. 147, Pergamon, 1981, Re-entrant nematic and smectic phases in the n-alkoxybenzoyloxy cyanostilbene series.
1130. Tinh, N. H., Bernaud, M. C., Sigaud, G., and Destrade, C., *Molec. Cryst.*, **65** 307, (1981), Dissymmetric hexasubstituted triphenylenes.
1131. Tinh, N. H., Destrade, C., Malthete, J., and Jacques, J., *Molec. Cryst.*, **72** 195, (1981), A pure reentrant cholesteric phase.
1132. Tinh, N. H., Destrade, C., and Gasparoux, H., *Molec. Cryst.*, **72** 247, (1981), Reentrant nematic phase with the new pentamorphism N SA SC N(RE) SA(RE) in a mixture.
1133. Titov, V. V., Blinov, L. M., and Kovshev, E. I., *Khim. Prom.*, **1981** 620, (1981), (RS) Liquid-crystal material.
1134. Titov, V. V., *Advances in Liquid-Crystal Research and Applications*, p. 973, Pergamon, 1981, Advances in synthesis of mesogens.
1135. Togashi, S., Suzuki, T., Aoyama, T., and Shimizu, H., *Molec. Cryst.*, **67** 117, (1981), White and Taylor type guest host displays without scattering effects using the tilted boundary conditions.
1136. Tokita, K., Fujimura, K., Kondo, S., and Takeda, M., *Molec. Cryst.*, **64** 171, (1981), The pair intermolecular interaction energy of the two nematogenic liquid-crystals.
1137. Tolmachev, A. V., *Sov. Ph. Cr. R.*, **26** 443, (1981), Translational ordering of the cholesteric mesophase of cholesterol benzoates.
1138. Tolmachev, A. V., Cherkashii, R. M., and Tishchenko, V., *Sov. Ph. Cr. R.*, **26** 496, (1981), Experimental investigation of contribution of dipole-dipole interaction to orientational ordering on cholesteric mesophase.
1139. Tomilin, M. G., Sheshkau, V. A., and Kovishik, A. P., *Opt. Spektro.*, **51** 1577, (1981), (RS) Opticophysical properties of liquid-crystals. Temperature—frequency dependence of the dielectric anisotropy of new nematic liquid-crystalline compositions.
1140. Toner, J., and Nelson, D. R., *Phys. Rev. B*, **23** 316, (1981), Smectic, cholesteric and Rayleigh-Benard order in two dimensions.
1141. Toriumi, H., Minakuch, S., and Uematsu, I., *J. Pol. Sc. P. P.*, **19** 1167, (1981), Concentration and temperature dependence of the helical twisting power of poly (gamma-benzyl L-glutamate) liquid-crystals in M-cresol.
1142. Trebin, H. R., *J. Physique*, **42** 1573, (1981), Elastic energies of a directional medium.
1143. Trebin, H. R., and Kutka, R., *J. Physique L.*, **42** 421, (1981), Restricted homotopies and focal conic textures.
1144. Trimper, S., *Phys. Lett. A*, **82** 131, (1981), Field-induced domain-like behavior in the chiral smectic-C phase.
1145. Trivedi, K. N., and Thaker, N. N., *Molec. Cryst.*, **76** 101, (1981), Low melting mesomorphic homologous series: 2-methyl-5-(4-n-alkoxybenzoyloxy)pyridines.
1146. Trivedi, K. N., and Thaker, N. N., *Molec. Cryst.*, **78** 263, (1981), Mesomorphic heterocyclic homologous series: 1. 7-(4-n-alkoxybenzoyloxy)-3-acetylcoumarins. 2. 4-formylphenyl 7-n-alkoxycoumarin-3-carboxylates.
1147. Trufanov, A. N., Barnik, M. I., Blinov, L. M., and Chigrinov, V. G., *Sov. Ph. Je. R.* **53** 355, (1981), Electrohydrodynamic instability in homeotropically oriented layers of nematic liquid-crystals.
1148. Trufanov, A. N., Blinov, L. M., and Barnik, M. I., *Advances in Liquid-Crystal Research and Applications*, p. 549, Pergamon, 1981, A novel type of the electrohydrodynamic instability in nematic liquid-crystals.

1149. Tsai, R. C., *P. Soc. Photo.*, **271** 14, (1981), High data density 4-color liquid-crystal display.
1150. Tseng, S. L., Valente, A., and Gray, D. G., *Macromolec.*, **14** 75, (1981), Cholesteric liquid-crystalline phases based on (acetoxyproyl)cellulose.
1151. Tsutsui, T., and Tanaka, R., *Polymer.*, **22** 117, (1981), Network polymers with cholesteric liquid-crystalline order prepared from poly-gamma-butyl-L-glutamate-butyl acrylate liquid-crystalline system.
1152. Tsutsumi, H., *Nip. Kag. Kai.*, **1981** 1691, (1981), (JA) Solution behavior of non-ionic surfactants with multi-hydrophobic chains in water.
1153. Tsvetkov, V. A., *Advances in Liquid-Crystal Research and Applications*, p. 567, Pergamon, 1981, Viscosity of nematic liquid-crystal mixtures.
1154. Tsvetkov, V. N., *Advances in Liquid-Crystal Research and Applications*, p. 813, Pergamon, 1981, Structure and properties of rigid-chain polymer molecules in solutions.
1155. Tsykalo, A. L., *Sov. Ph. Dokl.*, **26** 206, (1981), Molecular-dynamics study of the structure and properties of liquid-crystals with disc-like molecules and prediction of new liquid-crystal mesophases in such systems.
1156. Tsykalo, A. L., *Zh. Tekh. Fiz.*, **51** 1553, (1981), (RS) Observation and experiments of metastable chiral liquid-crystalline structures, obtained by rapid cooling down to cryogenic temperatures.
1157. Uchida, T., and Wada, M., *Molec. Cryst.*, **63** 19, (1981), Guest-host type liquid-crystal displays.
1158. Uchida, T., and Takahashi, Y., *Molec. Cryst.*, **72** 133, (1981), New method to determine elastic constants of nematic liquid-crystal from C-V curve.
1159. Uchiyama, M., and Ishii, C., *J. Ph. Soc. Jap.*, **50** 4030, (1981), Magnetic field induced phase transitions in a thin film of cholesteric liquid-crystal.
1160. Uemoto, T., Yoshino, K., and Inuishi, Y., *Molec. Cryst.*, **67** 137, (1981), Electrical and optical properties of ferroelectric liquid-crystals and influence of applied pressure.
1161. Uesu, Y., Kobayashi, J., Matsumoto, T., Strukov, B. A., and Kawabe, T., *Ferroelectr.*, **39** 1253, (1981), Optical activity of ferroelectric liquid-crystal DO-BAMBC.
1162. Umanskii, B. A., Chigrinov, V. G., Blinov, L. M., and Podyachev, Y. B., *Sov. Ph. Je. R.*, **54** 694, (1981), Flexoelectric effect in twisted liquid-crystal structures.
1163. Umeda, T., Miyashita, T., Tsutsumi, Y., and Nakano, F., *Jap. J. A. Phys.*, **20** 2025, (1981), Method of evaluating tilt domain in a twisted nematic cell.
1164. Urabe, T., Asher, S. A., and Pershan, P. S., *P. Nas. Biol.*, **78** 4941, (1981), Hydration of single crystals of dipalmitoylphosphatidylcholine.
1165. Urisu, T., Sugeta, T., and Mizushima, Y., *Appl. Optics*, **20** 633, (1981), Liquid-crystal display device for total reflection switching with fluorescent dye addition.
1166. Urs, M. S. R., and Sadashiva, B. K., *Molec. Cryst.*, **72** 227, (1981), New compounds with re-entrant nematic phases.
1167. Usoltseva, N. V., Zharyonov, R. I., Usoltseva, V. A., and Bardukov, L. N., *Advances in Liquid-Crystal Research and Applications*, p. 767, Pergamon, 1981, The change in the thermodynamic properties and structure of lecithine produced by ultra-violet radiation.
1168. Vacatello, M., and Busico, V., *Molec. Cryst.*, **64** 127, (1981), On the liquid-crystalline behavior of bis(n-pentadecylammonium) tetrabromozincate.
1169. Vainshtein, B. K., Kosterin, E. A., and Kamenchuk, L. M., *Advances in Liquid-Crystal Research and Applications*, p. 51, Pergamon, 1981, The X-ray studies of a crystalline structure of bis-(4-p-hexyloxybenzal)-1, 4-phenylenediamine and its polymorphic smectic mesophases.
1170. Vainshtein, B. K., Kosterin, E. A., Chistyako, I. G., Scherbako, S. A., Korchagin, A. N., and Utkin, A. I., *Advances in Liquid-Crystal Research and Applications*, p. 93, Pergamon, 1981, Electron diffraction study of liquid-crystals.

1171. Van, K., Norisuye, T., and Teramoto, A., *Molec. Cryst.*, **78** 123, (1981), Liquid-crystal formation in aqueous solutions of a polysaccharide schizophyllan.
1172. Vanwinkl., D. H., and Clark, N. A., *B. Am. Phys. S.*, **26** 275, (1981), Polarized reflectance microscopy studies of orientation fluctuations in freely suspended smectic-C liquid-crystal films.
1173. Vasilev, A. I., Balabanov, E. I., and Ushakov, V. M., *Advances in Liquid-Crystal Research and Applications*, p. 583, Pergamon, 1981, Study of motion of liquid-crystals in electric field.
1174. Vauchier, C., Zann, A., Lebarney, P., Dubois, J. C., and Billard, J., *Molec. Cryst.*, **66** 103, (1981), Orientation of discotic mesophases.
1175. Vaz, N. A. P., Doane, J. W., and Neubert, M. E., *Molec. Cryst.*, **68** 11, (1981), Biaxial ordering of melted chains near the gel phase transition: An NMR-study.
1176. Vedenov, A. A., and Tretyako., L. I., *JETP Letter*, **34** 258, (1981), Swelling of clays and lyotropic liquid-crystals.
1177. Veghely, T., and Strausz, T., *Advances in Liquid-Crystal Research and Applications*, p. 1123, Pergamon, 1981, The influences of thickness, dye constitution and concentration on the optical properties of dichroic LCDs.
1178. Vetrova, Z. P., Karabano., N. T., Maidache., G. G., and Yashin, Y. I., *Usp. Kh.*, **50** 1678, (1981), (RS) Adsorption-absorption gas-chromatography on silochromes with the liquid-crystal films.
1179. Vilfan, M., Lahajnar, G., Rutar, V., Blinc, R., Topic, B., Zann, A., and Dubois, J. C., *J. Chem. Phys.*, **75** 5250, (1981), Proton NMR-study of a discotic columnar mesophase.
1180. Viner, J. M., and Huang, C. C., *Sol. St. Comm.*, **39** 789, (1981), A specific heat study of the nematic smectic-A transition in octyloxybiphenyl.
1181. Vistin, L. K., Kabaenkov, A. Y., and Yakovenko, S. S., *Sov. Ph. Cr. R.*, **26** 70, (1981), Use of optical diffraction to determine periodically modulated liquid-crystal structures.
1182. Vistin, L. K., and Yakovenko, S. S., *Sov. Ph. Cr. R.*, **26** 216, (1981), Broadening of diffraction maxima in liquid-crystal diffraction lattices.
1183. Vistin, L. K., Chumakova, S. P., and Rajabova, Z. B., *Advances in Liquid-Crystal Research and Applications*, p. 483, Pergamon, 1981, Investigation of electrooptical effects in chiral smectic-C.
1184. Vistin, L. K., and Yakovenko, S. S., *Advances in Liquid-Crystal Research and Applications*, p. 589, Pergamon, 1981, Interference narrowing of diffraction maxima in liquid-crystal diffraction gratings.
1185. Vistin, L. K., Yakovenko, S. S., and Kabaenkov, A. Y., *Advances in Liquid-Crystal Research and Applications*, p. 633, Pergamon, 1981, Determination of spatially periodically modulated structures in optically anisotropic media by means of optical diffraction.
1186. Vistin, L. K., Petrov, A. G., Shonova, N. T., Derzhanski, A., *Advances in Liquid-Crystal Research and Applications*, p. 1213, Pergamon, 1981, Generation of low-frequency electrical and optical oscillations in a system liquid-crystal cell—solar cell.
1187. Vistin, L. K., Kabaenkov, A. Y., and Yakovenko, S. S., *Sov. Ph. Cr. R.*, **26** 70, (1981), Use of optical diffraction to determine periodically modulated liquid-crystal structures.
1188. Vlad, V. I., *Rev. Ro. Phys.*, **26** 1097, (1981), Opto-electronic bistable devices using twisted nematic liquid-crystal cells for real-time optical information processing.
1189. Voigt, J., and Jacobsen, J. P., *J. Magn. Res.*, **45** 510, (1981), H-2-(H-1) selective spin population transfer in nematic phase solutions.
1190. Volchek, B. Z., Purkina, A. V., Vlasov, G. P., and Ovsyanni., L. A., *Vyso. Soed. B*, **23** 154, (1981), (RS) On the temperature dependence of the concentration range of existence of the liquid-crystalline phase in rigid-chain polymers solution.

1191. Volchek, B. Z., Purkina, A. V., Vlasov, G. P., and Ovsyanni, L. A., *Molec. Cryst.*, **73** 283, (1981), Experimental investigation of the conditions for the formation of the liquid-crystalline state of polymers.
1192. Vold, R. L., Dickerso., W. H., and Vold, R. R., *J. Magn. Res.*, **43** 213, (1981), Application of the Jeener-Broekaert pulse sequence to molecular dynamics studies in liquid-crystals.
1193. Vold, R. R., Vold, R. L., and Szeveren., N. M., *J. Phys. Chem.*, **85** 1934, (1981), Nuclear relaxation and molecular dynamics of cyanoacetylene-D and chloroform-D in a thermotropic nematic liquid-crystal.
1194. Volino, F., Martins, A. F., Blumstein, R. B., and Blumstein, A., *Cr. Ac. S. II*, **292** 829, (1981), (FR) Evidence by proton NMR of the alignment of a thermotropic nematic polymer by a magnetic field of 1 Tesla.
1195. Volino, F., Martins, A. F., and Dianoux, A. J., *Molec. Cryst.*, **66** 37, (1981), Temperature dependence of DMR splittings in nematic PAA: A quantitative interpretation in terms of changes in the molecular conformation. Comparison with other models.
1196. Volino, F., Martins, A. F., Blumstein, R. B., and Blumstein, A., *J. Physique L*, **42** 305, (1981), Evidence by proton NMR of the alignment of a thermotropic nematic polymer by a magnetic field of approximately 1 Tesla.
1197. Volovik, G. E., and Kats, E. I., *Sov. Ph. Je. R.*, **54** 122, (1981), Non-linear hydrodynamics of liquid-crystals.
1198. Vonzelew., A., and Zobrist, M., *Helv. Chim. A.*, **64** 2154, (1981), Electron-paramagnetic-resonance spectroscopic investigations of planar Cu(II)-complex and low-spin Co(II)-complexes in nematic phases and in single crystals.
1199. Vora, R. A., and Dixit, N., *Molec. Cryst.*, **67** 193, (1981), Mesogens having positive dielectric anisotropy — II: 4(4-n-alkoxy-benzyoxyloxy)-2-methyl-2-chloro-4-nitroazobenzenes.
1200. Vora, R. A., and Gupta, R., *Molec. Cryst.*, **67** 215, (1981), A homologous series containing ester and amide groups as central linkages: 4(4-n-alkoxybenzyoxy-4-n-heptyloxy benzanilides).
1201. Vorbrodt, H. M., Deresch, S., Kresse H., Wiegeleben, A., Demus, D., and Zaschke, H., *J. Prakt. Chem.*, **323** 902, (1981), (GE) Liquid-crystalline heterocycloalkanes .1. Synthesis and properties of substituted 1,3-dioxanes.
1202. Vtyurin, A. N., Ermakov, V. P., Ostrovski, B. I., and Shabanov, V. F., *Phys. St. S. B.*, **107** 397, (1981), Study of optical second harmonic generation in ferroelectric liquid-crystal.
1203. Vtyurin, A. N., Ermakov, V. P., Ostrovski, B. I., and Shabanov, V. F., *Sov. Ph. Cr. R.*, **26** 309, (1981), Second optical harmonic generation in a liquid ferroelectric crystal.
1204. Wacrenie., J. M., Druon, C., and Lippens, D., *Molec. Phys.*, **43** 97, (1981), A study of experimental results obtained for dielectric relaxation of several mesomorphous members of the alkylcyanobiphenyl series.
1205. Wagner, W., *Advances in Liquid-Crystal Research and Applications*, p. 169, Pergamon, 1981, Short-range order correlations in a three-dimensional nematic liquid-crystal.
1206. Wagner, W., *Molec. Cryst.*, **75** 169, (1981), Molecular correlations in a nematic liquid-crystal.
1207. Walker, J. S., and Berker, A. N., *Abs. Pap. A. C. S.*, **181** 17, (1981), Anti-ferroelectric order and frustration: A mechanism for reentrant phase diagrams in liquid-crystals.
1208. Walker, W. W., *Molec. Cryst.*, **64** 319, (1981), Correlation between positron lifetime parameters and crystallographic data for some esters of cholesterol.
1209. Wang, C. C., Volksen, W., and Yoon, D. Y., *B. Am. Phys. S.*, **26** 397, (1981), Dielectric relaxations in thermotropic polyesters.

1210. Wang, S. c., Senbetu, L., and Woo, C. W., *Molec. Cryst.*, **74** 89, (1981), The search for quantum liquid-crystals.
1211. Warren, W. S., and Pines, A., *J. Chem. Phys.*, **74** 2808, (1981), Experiments on selective excitation of multiple-quantum transitions in NMR-spectroscopy.
1212. Warren, W. S., and Pines, A., *J. Am. Chem. So.*, **103** 1613, (1981), Analogy of multiple-quantum NMR to isotopic spin labeling.
1213. Watabe, K., Hobo, T., and Suzuki, S., *J. Chromat.*, **206** 223, (1981), Liquid-crystals as the stationary phase in gas-chromatography .4. Evaluation of the combination of a separation column and an electric-field liquid-crystal column.
1214. Waters, C. M., Saunders, F. C., and Clark, M. G., *Molec. Cryst.*, **64** 261, (1981), Study of cholesteric textures in phase-change devices by laser-light diffraction.
1215. Waton, G., Ferre, A., Candau, S., Perbet, J. N., and Hareng, M., *Molec. Cryst.*, **78** 237, (1981), Characterization of distortions induced by a flow or an electric field in nematic films using conoscopic experiments.
1216. Weissflog, W., *Z. Chem.*, **21** 35, (1981), (GE) Liquid-crystalline 4,4-bis-(n-alkylamino)-biphenyls.
1217. Weissflog, W., Pelzl, G., and Demus, D., *Cryst. Res. T.*, **16** 79, (1981), A new substance exhibiting a stable re-entrant nematic phase.
1218. Weissflog, W., Mockel, P., Tschimeg, S., Kresse, H., and Demus, D., *J. Prakt. Chem.*, **323** 599, (1981), (GE) Synthesis and dielectric properties of liquid-crystalline alkyliminomethyl-substituted phenylbenzoates.
1219. Weissflog, W., Schlick, R., and Demus, D., *Z. Chem.*, **21** 452, (1981), (GE) Liquid-crystalline 2-tert-butyl-1, 4-bis-(4-n-alkyloxy-benzoyloxy)benzenes.
1220. Weissflog, W., Pelzl, G., and Demus, D., *Molec. Cryst.*, **76** 261, (1981), Chemical structure and re-entrant behaviour.
1221. Wiegel, D., and Herold, W., *Advances in Liquid-Crystal Research and Applications*, p. 1247, Pergamon, 1981, The effect of layer instabilities on liquid-crystalline thermography.
1222. Wiegeleben, A., Deutscher, H. J., Demus, D., and Altmann, H., *Z. Chem.*, **21** 28, (1981), (GE) Calorimetric investigations in liquid-crystalline 4-cyano-phenyl trans-4-n-akyl-cyclohexanoates.
1223. Wiegeleben, A., and Demus, D., *Cryst. Res. T.*, **16** 109, (1981), The dispersion of the dynamic scattering of colorless nematic liquid-crystals.
1224. Wissbrun, K. F., *J. Rheol.*, **25** 619, (1981), Rheology of rod-like polymers in the liquid-crystalline state.
1225. Witko, W., Janik, J. M., Janik, J. A., and Sokolowski, J., *Advances in Liquid-Crystal Research and Applications*, p. 349, Pergamon, 1981, Raman spectroscopy studies of molecular reorientations of liquid-crystals.
1226. Wittebor., R. J., Schmidt, C. F., and Griffin, R. G., *Biochem.*, **20** 4223, (1981), Solid-state C-13 nuclear magnetic resonance of the lecithin gel to liquid-crystalline phase transition.
1227. Wojciecho., K. W., Pieranski, P., and Malecki, J., *Molec. Phys.*, **42** 435, (1981), A hard disc system and Ising-like behaviour in a thin layer.
1228. Wolfe, J. F., Loo, B. H., and Sevilla, E. R., *Abs. Pap. A. C. S.*, **181** 102, (1981), Synthesis of liquid-crystalline solutions of poly(p-phenylene benzobis-thiazole) in polyphosphoric acid.
1229. Wolff, R., Weissflog, W., Kresse, H., Demus, D., and Zaschke, H., *Z. Chem.*, **21** 33, (1981), (GE) New liquid-crystalline ethers with a dicyanoethylene terminal group.
1230. Woo, C. W., and Shen, J., *B. Am. Phys. S.*, **26** 304, (1981), Isotropic nematic transitions in an external field.
1231. Woo, C. W., Wang, S. C., and Senbetu, L., *Physica B & C*, **107** 273, (1981), Quantum liquid-crystals: Orientationally ordered quantum liquids.

1232. Wrobel, S., and Doane, J. W., *B. Am. Phys. S.*, **26** 304, (1981), Reorientation of the principal axes of molecular order at the nematic smectic-A phase transition.
1233. Wulf, A., *Phys. Rev. A*, **24** 2253, (1981), Comment on the NMR determination of molecular order in the smectic-C phase.
1234. Wullschl., J., *Microtecnic*, **1981** 24, (1981), (GE) Liquid-crystal display.
1235. Wullschl., J., *Microtecnic*, **1981** 5, (1981), (FR) Liquid-crystal stacking.
1236. Yakono, T., Marsh, H., and Yokono, M., *Fuel*, **60** 507, (1981), Carbonization and liquid-crystal (mesophase) development .19. Co-carbonization of oxidized coals with model organic compounds.
1237. Yamada, H., and Ishii, C., *Molec. Cryst.*, **76** 113, (1981), Relaxation of distortions in a nematic thin film with weak anchoring condition.
1238. Yamashita, M., Kimura, H., and Nakano, H., *Prog. T. Ph. Jp.*, **65** 1504, (1981), On the stability of cholesteric phase exposed to magnetic field.
1239. Yamashita, M., Kimura, H., and Nakano, H., *Molec. Cryst.*, **68** 79, (1981), On the transition between cholesteric and nematic phases in magnetic field.
1240. Yanasigawa, T., Sakai, K., Adachi, T., Kasahara, K., Ide, K., and Hori, H., *SID Dig.*, **12** 110, (1981), MOS array with platinum display electrodes for reflective dynamic scattering LCDs.
1241. Yaniv, Z., Vaz, N. A. P., Chidichi., G., and Doane, J. W., *Phys. Rev. L.*, **47** 46, (1981), Direct NMR measurements of biaxiality in the cholesteric liquid-crystalline phase.
1242. Yaniv, Z., Chidichi., G., Vaz, N. A. P., and Doane, J. W., *Phys. Lett. A*, **86** 297, (1981), Twist impeded self-diffusion in a cholesteric.
1243. Yano, S., Watanabe, Y., Terashim., K., and Aoki, K., *Molec. Cryst.*, **66** 75, (1981), Studies of intermolecular interaction in binary nematic mixtures of p-methoxybenzylidene-p-n-butylaniline and p-cyano-p-n-pentylbiphenyl by di-electric relaxations.
1244. Yano, S., Nabata, Y., and Aoki, K., *Molec. Cryst.*, **70** 163, (1981), Mesomorphism of cholesteryl halopropionate.
1245. Yatsazuka, K., and Watanabe, A., *Jap. J. A. Phy.*, **20** 1320, (1981), Electro-optical effects in LC(MBBA) sandwich cell including a micropore membrane.
1246. Ye, P. X., and Shen, Y. R., *Appl. Phys.*, **25** 49, (1981), Four-wave mixing and optical field induced helical structure in liquid-crystalline materials.
1247. Ye, P. X., Chu, G. Y., Zhang, Z. G., Fu, P. M., Ji, G. S., and Lin, X., *Sci. Sinica*, **24** 761, (1981), The characteristic of four-wave mixing in liquid-crystals.
1248. Yoon, K., Chae, D. G., Ree, T., and Ree, F. H., *J. Chem. Phys.*, **74** 1412, (1981), Computer simulation of a grand canonical ensemble of rodlike molecules.
1249. Yoshida, J., Nakajima, Y., Kobinata, S., and Maeda, S., *J. Ph. Soc. Jap.*, **50** 3525, (1981), Determination of order parameters in liquid-crystal by resonance Raman method: 5CB as probed by beta-carotene.
1250. Yoshiyama, M., Matsuo, T., Kawasaki, K., Tatsuta, H., and Ishihara, T., *Molec. Cryst.*, **68** 247, (1981), Small liquid-crystal television display.
1251. Yu, H., *J. Res. NBS*, **86** 571, (1981), Application of light-scattering to polymers. Liquid-crystals, and biological systems.
1252. Zannoni, C., *Chim. Ind. M.*, **63** 693, (1981), (IT) Liquid-crystals: The fourth state of matter.
1253. Zannoni, C., and Guerra, M., *Molec. Cryst.*, **44** 849, (1981), Molecular dynamics of a model anisotropic system.
1254. Zaschke, H., *Advances in Liquid-Crystal Research and Applications*, p. 1059, Pergamon, 1981, Heterocyclic liquid-crystals.
1255. Zeldovich, B. Y., and Tabiryan, N. V., *Kvan. Elektr.*, **8** 421, (1981), (RS) On possible light wavefront reversal by means of liquid-crystal transparencies.
1256. Zeldovich, B. Y., and Tabiryan, N. V., *Sov. Ph. Je. R.*, **54** 922, (1981), Fluctuations of the director of a nematic liquid-crystal in a cell of finite thickness.

1257. Zeldovich, B. Y., and Tabiryan, N. V., *JETP Letter*, **34** 67, (1981), Photoinduced gyrotropy of the mesophase of liquid-crystals.
1258. Zeldovich, B. Y., and Tabiryan, N. V., *JETP Letter*, **34** 406, (1981), Fredericksz transition in cholesteric liquid-crystals without external fields.
1259. Zeldovich, B. Y., Tabiryan, N. V., and Chilinga, Y. S., *Sov. Ph. Je. R.*, **54** 32, (1981), Fredericksz transitions induced by light fields.
1260. Zeller, H. R., *Phys. Rev. A.*, **23** 1434, (1981), Dielectric relaxation in nematic mixtures.
1261. Zeller, H. R., *Helv. Phys. A.*, **54** 230, (1981), (GE) The relationship between dielectric relaxation and nematic order in liquid-crystals.
1262. Zeller, H. R., Osman, M. A., Pietrone, L., and Scheffer, T. J., *Helv. Phys. A.*, **54** 231, (1981), (GE) Dyestuffs for dichroic liquid-crystal displays.
1263. Zhang, H. J., Dai, J. H., Yang, J. H., and Gao, C. X., *Opt. Commun.*, **38** 21, (1981), A bistable liquid-crystal electro-optic modulator.
1264. Zhang, S. L., Zhou, H. T., Song, Z. F., Rong, Z. X., Hua, D. H., and Wang, S. K., *Molec. Cryst.*, **70** 183, (1981), The phase transition behavior of mixtures of nematic liquid-crystal with non-mesogenic solute molecules.
1265. Zhang, Z. G., Feng, K. A., and Lin, L., *Chin. Phys.*, **1** 110, (1981), Generalized Suzuki formula and its application in liquid-crystals.
1266. Zharkova, G. M., Khachatur, V. M., Vostokov, L. A., Alekseev, N. M., *Advances in Liquid-Crystal Research and Applications*, p. 1221, Pergamon, 1981, Study of liquid thermoindicators.
1267. Zhelezno, K. N., Klopov, V. I., and Indeikin, F. A., *Ivuz. Khim. K.*, **24** 1110, (1981), (RS) The study of dispersion stability of microcapsuled liquid-crystals.
1268. Zhukov, V. S., *Sov. Ph. Cr. R.*, **26** 138, (1981), Dynamics of molecules in a smectic liquid-crystal.
1269. Zielinsk., W. L., Scanlan, R. A., and Miller, M. M., *J. Chromat.*, **209** 87, (1981), Feasibility study of high temperature liquid crystals in wall coated open-tubular columns.
1270. Zoccolil, L., Goretti, G., and Diiorio, I., *Ann. Chim.*, **71** 535, (1981), Liquid-crystal-coated glass microbeads as gas-chromatographic columns.
1271. Zolotko, A. S., Kitayeva, V. F., Sobolev, N. N., and Sukhoruk, A. P., *Sov. Ph. Je. R.*, **54** 496, (1981), Self-focusing of laser radiation in the course of a Fredericksz transition in the nematic phase of a liquid-crystal.
1272. Zolotko, A. S., Kitayeva, V. F., Kroo, N., Sobolev, N. N., and Csillag, L., *JETP Letter*, **34** 250, (1981), Light-induced Fredericksz transition in an MBBA liquid-crystal.
1273. Zumer, S., and Vilfan, M., *Molec. Cryst.*, **70** 39, (1981), Disc-like liquid crystals: Molecular motions and nuclear magnetic relaxation.
1274. Zverkova, T. I., Kovshev, E. I., Moklyachu., L. I., Fialkov, Y. A., and Yagupolsk., L. M., *Advances in Liquid-Crystal Research and Applications*, p. 991, Pergamon, 1981, Synthesis and mesomorphism of p-fluoroalkyl-(alkoxy)benzoic esters.