## Classified contents

- Acoustic emissions, from polymers, analysis of, 1206
- Acrylamides, N-substituted, solid-state polymerization of, 1484
- Adsorption and desorption of complex metal ions in polyviologen or its polyion complexes with poly(sulphonate)s by the control of a given potential, 846
- Ageing, physical, of atactic PMMA, on the workhardening rate of glassy polymers: 1. Application of the, 476
- -, thermo-oxidative, and its effect on the network structure and fracture mode of natural rubber vulcanizates, 1042
- -, physical, in rigid chain polymers, 1071 -, the effect of physical, on the properties of
- poly(ethylene terephthalate), 1245 materials, deformation kinetics of, 1551
- Aggregation behaviour of stereoregular poly(methyl methacrylates) in dilute
- solution: light scattering and proton n.m.r. study, 700
- time and character of aggregated particles in different solvents, stereocomplexes in solutions of syndioand isotactic poly(methyl methacrylate) mixtures: 1., 713
- Amorphous state, change of the, by heat treatment below the glass transition temperature, 877
- polymers, detection of sub-glass transition events in, using differential scanning calorimetry: 3. Further observations on polymers containing pendant cycloalkyl rings, 1439
- Analysis of acoustic emissions from polymers, 1206
- Anamalous structures, formation of, in PVC and their influence on the thermal stability: 2. Branch structures and tertiary chlorine, 673
- , formation of, in PVC and their influence on the thermal stability: 3. Internal chloroallylic groups, 685
- Anionic route, a novel approach to the synthesis of high 1,4-telechelic polybutadienes by an, 883
- Anisotropy of X-ray structural parameters of the three phase model in cellulose I, 525
- effects, particle size from optical, in scattered light, 991
- Antimony pentachloride, polyvinylcarbazole films containing, electroluminescence from polyvinylcarbazole films: 2., 737
- Application of functionalized polymers in organic synthesis, recent developments in the, 1369
- Banded structures in oriented thermotropic polymers, 155
- Benzophenone chromophores, optically active polymers containing side-chain, 101
- chromophores, polymers containing sidechain: a new class of highly efficient polymerization photoinitiators, 599

- Benzyl chloride, polycondensation of, catalysed by ArCr(CO)<sub>3</sub>, 707
- p,p'-Bibenzoic acid, polyesters based on, investigation of the smectic phase of,
- Bis(ethyl urethane) of 2,4-hexadiyne-1,6-diol, the solid-state polymerization and physical properties of: 3. Mechanical properties, 1023
- Bis(2-hydroxyethyl) terephthalate, unsaturated polyesters based on, 469 Blends, small-angle neutron scattering of partially segregated polymer, 43
- polystyrene-poly(α-methyl styrene), the effect of molecular weight and casting solvent on the miscibility of, 60
- phase separation in, of homopolymer and graft copolymer based on styrene and butadiene, 1259
- -, polymer, dispersion states of porous inorganic materials in, observed by inverse gas chromatography, 1596
- Bound water, relationship between hydrogen bonding and, in polyhydroxystyrene derivatives, 871
- Butadiene grafted polypropylene, high resolution solid state <sup>13</sup>C n.m.r. of, 1252
- Carbazole cations, electroluminescence from polyvinylcarbazole films: 1., 733
- Carbon-black-loaded polyethylene, low temperature electrical resistivity of, 841
- Catalysts, magnesium alkyl reduced titanium (IV) chloride based polymerization, materials rich in magnesium chloride,
- Catalysed reactions,: 2., models for the formation of poly(butylene terephthalate): Kinetics of the titanium tetrabutylate-, 1479
- Cathodes, higher work function, electroluminescence using, electroluminescence from polyvinylcarbazole films: 4., 753
- Cellulose I, anisotropy of X-ray structural parameters of the three phase model in,
- Cellulose crystallites, directionality of the fibre c-axis of, in microfibrils of Valonia ventricosa, 1547
- Cellulose triacete solutions, gel formation and liquid crystalline order in, 815
- Chain folding, the variable cluster model of, in the regime III crystallization in meltcrystallized polymers, 3
- Shapes of ring and, molecules, studies of cyclic and linear poly(dimethyl siloxanes): 11., 395
- orientation in poly(acetylene), direct evidence for, 805
- length, influence of, on conformations of poly(ethylene glycol) chains grafted on silica, 959
- rigid, polymers, physical ageing in, 1071

- twist, dispiration, disclinations, dislocations, and, in polyethylene crystals, 1387
- Chains, interpretation of quasi-elastic light scattering data for flexible,: model dependence, 383
- , strongly entangled polymer, in a melt. Description of n.m.r. properties associated with a submolecule model,
- two-dimensional random coil, on hexagonal lattices, 409
- entangled linear polymer, in melts: n.m.r. and Rouse or reptation models; stress relaxation, 1128
- Chemical amplification, a photosensitive polymer exhibiting, chemically modified polystyrene containing pendant vinyl groups:, 114
- Chromophores, side-chain benzophonone, optically active polymers containing, 101
- polymers containing side-chain benzophenone, a new class of highly efficient polymerization photoinitiators,
- Classical cosolvent, polymer-cosolvent systems: 7. The application of free volume theory to the classical cosolvent systems formed from polystyrene in acetone and n-alkanes, 1453
- Cloud point curves, miscibility of oligomeric poly(dimethyl siloxanes) with long-chain unbranched alkanes: 2. Unsymmetrical, 1434
- Combination of polymer ions. Formation of copolymer containing polytetrahydrofuran and poly(dimethyl siloxane) blocks, 217
- Compatibility of chlorinated polyethylene with poly(methyl methacrylate), a thermodynamic interpretation of the, 263
- of poly(p-fluorostyrene-co-ofluorostyrene) with poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene, 529
- among chlorinated polyethylenes, 1279 Complexation of poly-2,5-dimethyl-4vinylethynilpyrperidol-4 hydrochloride with transition metal ions in solution, 607
- change in the molecular weight distribution of poly(ethylene oxide) caused by the, with poly(acrylic acid),
- Complexes, role of monomer, in the copolymerization of methyl methacrylate and isoprene in the presence of ethyl aluminium sesquichloride, 565
- butyllithium-amine, oligomerization of ethylene by several normal: 8. Kinetic study, 1203
- anionic polymerization of isoprene by the, of oligoisoprenyllithium/tertiary polyamines in cyclohexane: 3. Structural study of the polymers by 1H n.m.r. at 100 MHz, 1291
- Compositional analysis by g.l.c. of monomer feed in copolymerization - errors due to adsorption of monomer to copolymers,

- parameters, polyurethane-poly(methyl methacrylate) interpenetrating polymer networks: 2. Influence of, on the synthesis: physical properties, 1415
- Compression, experiments on the smallstrain behaviour of crosslinked natural rubber: 2. Extension and, 1502
- experimental tests of entanglement models of rubber elasticity: 1. Uniaxial extension-, 1644
- Conducting complexes of vacuum-cyclized polyacrylonitrile and iodine, 800
- polymers, highly, based on polyacetylene hydrogen sulphate: Preparation and stability studies, 1294
- Conformational transition in syndiotactic PMMA: 6. Mono- and dichlorobenzene, 1015
- relaxation times, the behaviour of polyelectrolyte solutions in elongational flow; the determination of, (with an Appendix of an anomalous adsorption effect), 1081
- transitions, investigation of, in polyamide-6 macromolecules in mixtures of m-cresol and methanol, 1590
- Conformations of poly(ethylene glycol) chains grafted on silica, influence of chain length of, 959
- Copolycarbonates, equimolar, of bisphenol A with bisphenol A and 1,4-bis(hydroxymethyl)cyclohexane, the properties of, 1313
- Copolyesters, aromatic-aliphatic, structure and properties of, 596
- , liquid crystalline aromatic, the structure of, prepared from 4-hydroxybenzoic acid and 2-hydroxy-6-naphthoic acid, 937
- Copolymer containing polytetrahydrofuran and poly(dimethyl siloxane) blocks, formation of, 217
- -, styrene-butadiene, film with bound synergistic stabilizers, protection of, against ferric stearate-catalysed photooxidative degradation at elevated temperature, 229
- triblock, small-angle neutron scattering study of the structure of a, of styrene and isoprene during extension, 275
- electron resists: poly(styrene-methyl methacrylate) copolymers, 387
- tetramethyl-psilphenylensiloxane/dimethylsiloxane triblock, synthesis of employing living anionic polymerization, 457
- , block, thermal and mechanical properties of tetramethyl-psilphenylensiloxane/dimethylsiloxane, 463
- block, synthesis of by the reaction of living poly(N-phenylmethacrylamide) radical with vinyl monomers, 1018
- , block, interphase structure, small-angle neutron scattering measurement of, 1089
- --, phase separation in blends of homopolymer and graft, based on styrene and butadiene, 1259
- blends, a Fourier transform infra-red study of the phase behaviour of polymer blends. Ethylene-vinyl acetate, with poly(vinyl chloride) and chlorinated polyethylene, 1410
- Copolymerization of methyl methacrylate and isoprene in the presence of ethyl aluminium sesquichloride: role of monomer complexes, 565
- compositional analysis by g.l.c. of monomer feed in, errors due to adsorption of monomer to copolymers, 720

- , a study of the cationic, of ethyl and isopropyl vinyl ethers induced by radiation, 1469
- , organotin polymers: 6., parameters for tri-n-butylin maleate, acrylate and methacrylate with some vinyl monomers, 1635
- Copolymers and homopolymers of poly(vinylidene chloride), FT-i.r. and thermal analysis studies of blends of poly(e-caprolactone) with, 37
- strain crystallization in random, produced by epoxidation of cis 1,4polyisoprene, 107
- poly(styrene-methyl methacrylate), copolymer electron resists:, 387
- nuclear magnetic resonance studies on sequence distributions in vinyl alcoholvinyl acetate, 507
- heterogeneous block, single chain scattering in, 519
- 'Cosolvency', 'classic' polymer-cosolvent systems: 6. Phase behaviour of polystyrene in binary mixed solvents of acetone with n-alkanes-examples of, 1449
- Cosolvent mixtures, stereocomplex formation of PMMA in, 903
- Counterions, cryptates as, anionic polymerization of  $\alpha$ , $\alpha$ -disubstituted  $\beta$ -propiolactones with, 578
- Crack growth, slow stable, in high density polyethylenes, 234
- Craze micromechanics, molecular weight distribution effects on, 1063
- zones, size and mechanical properties of, at propagating crack tips in poly(methyl methacrylate) during fatigue loading, 1213
- Creep rupture modelling, energy criterion for, of high density polyethylene, 1067
- Critical properties, reduced van der Waals equation of state and, of rubbers, 949
- Crosslinking, Friedel-Crafts, methods for polystyrene modification:  $T_gT_{ll}$  and  $T_{ll}$  transition of grafted polystyrene, 898
- Crystal structure, polyethylene, analysis of, with electron diffraction intensity data: Deconvolution of multiple scattering effects, 291
- Crystallite thickness measurements on ultrahigh modulus linear polyethylene: effect of draw temperature, 27
- Crystallization, Regime III, in meltcrystallized polymers: The variable cluster model of chain folding, 3
- -, polymer, macrokinetics of, 81
- strain, in random copolymers produced by epoxidation of cis 1,4-polyisoprene, 107
- effect of pressure on the melting and, behaviour of isotactic polybutene-1, 141
- --, general, behaviour of poly(L-lactic acid)
   PLLA: 2. Eutectic crystallization of PLLA, 167
- kinetics of poly(L-lactic acid), 175
- -induced reactions of copolymers: 6.
   Reorganization of polyesters in the liquid state, 327
- behaviour of fractions of isotactic polypropylene with different degrees of stereoregularity, 693
- poly(ethylene terephthalate), influence of molar mass and catalysts on the kinetics of, and on the orientation of, 1008
- , on the kinetics of isothermal, of branched polyethylene, 1585
- kinetics of non-isothermal, of polyethylene and polypropylene, 1593

- Crystallographic changes characterizing the Curie transition in three ferroelectric copolymers of vinylidene fluoride and trifluoroethylene: 1. As-crystallized samples, 1225
- characterizing the Curie transition in three ferroelectric copolymers of vinylidene fluoride and trifluoroethylene:
   2. Oriented or poled samples, 1233
- Crystals, poly(ethylene oxide), temperature dependence of distortion in, 135
- polymer, an application of Monte Carlo method to simulate disorders in, 943
- Curie point, ferroelectric, phase transition at a temperature immediately below the melting point of poly(vinylidene fluoride) form 1: A proposition for the, 199
- Curie transition, crystallographic changes characterizing the, in three ferroelectric copolymers of vinylidene fluoride and trifluoroethylene: 1. As-crystallized samples, 1225
- crystallographic changes characterizing the, in three ferroelectric copolymers of vinylidene fluoride and trifluoroethylene:
   Oriented or poled samples, 1233
- Cyclization dynamics of polymers: 7.

  Applications of the pyrene excimer technique to the internal dynamics of poly(dimethyl siloxane) chains, 319
- of polymers: 9. The effect of polymer concentration on the slowest internal relaxation mode of a labelled polystyrene chain, 1286
- Cyclopentene, the monometallic initiation of the methathesis polymerization of, 1317
- Degradation, ferric stearate-catalysed photooxidative, at elevated temperature, protection of styrene-butadiene copolymer film with bound synergistic stabilizers against, 229
- product formation, simulation of cyclics and, in poly(ethylene terephthalate) reactors, 449
- behaviour and thermal stability of exactly alternating silarylene-siloxane polymers, 761
- photo-oxidative, effect of thermal stabilizers on the, of solid poly(vinylchloride), 1189
- Degradative addition, diffusion control in non-classical free-radical polymerization, 433
- **Defects,** preliminary observations of, in a polymeric nematic phase, 295
- Deformation, plastic, of oriented lamaellae:
  3. Drawing behaviour of β-phase isotactic polypropylene, 925
- mechanisms, static and dynamic, of a high-density polyethylene having rownucleated crystalline texture of a-axis orientation as observed by orientation distribution function of crystallites, 1113
- and fracture behaviour of a rubbertoughened epoxy: 1. Microstructure and fracture studies, 1341
- and fracture behaviour of a rubbertoughened epoxy: 2. Failure criteria, 1355
- kinetics of ageing materials, 1551
   Density, effect of vitrification pressure on radius of gyration, specific heat and, or

- Depolarization, thermally stimulated, effect in thiourea-formaldehyde condensate,
- Desorption, adsorption and, of complex metal ions in polyviologen or its polyion complex with poly(sulphonate)s by the control of a given potential, 846
- p-N,N-Dialkylaminobenzylidenemalononitrile, on the fluorescence properties of, in polymer matrices, fluorescence probe for microenvironments, 439
- Dialkylphthalates, a programmed temperature technique for the determination of the diffusion parameters of three, in poly(vinyl chloride), 831
- Dibutylphthalate, co-operative diffusion of semi-dilute solutions, concentrated solutions and swollen networks for polystyrene in, 1601
- Dicarboxylic acids, polyesterification of solid, by oxiran, 1615
- Dichlorobenzene, Mono- and, conformational transition in syndiotactic PMMA: 6., 1015
- Dielectric behaviour and sulphur vulcanization of crosslinked butyl(XL-50) rubber, 617
- relaxation in networks of end-linked dimethylsiloxane oligomers, 1139
- studies of cyclic and linear poly(dimethyl siloxanes): 13 Static dielectric measurements and dipole moments, 1565
- Differential scanning calorimetry, detection of sub-glass transition events in amorphous polymers using,: 3. Further observations on polymers containing pendant cycloalkyl rings, 1439
- molecular fractionation in meltcrystallized polyethylene: 1., 1521
- -, molecular fractionation in meltcrystallized polyethylene: 2. Effect of solvent extraction on the structure as studied by, and gel permeation chromatography, 1532
- Differential solubility in dissolution of polypropylene:, 553
- Diffusion-control in degradative addition in non-classical free-radical polymerization: 3., 433
- measurements, self and mutual, in dilute and semi-dilute polystyrene solutions,
- behaviour, observation of, by quasielastic neutron scattering, in studies of cyclic and linear poly(dimethyl siloxanes); 12.,
- of additives and plasticizers in poly(vinyl chloride): 4. A programmed temperature technique for the determination of the diffusion parameters of three dialkylphthalates, 831
- of salt solutions into nylon-6, 1001
- , co-operative, of semi-dilute solutions, concentrated solutions and swollen networks for polystyrene in dibutylphthalate, 1601
- Diglycidyl ether of bisphenol A (DGEBA)anhydride epoxy resins, factors influencing the glass transition of, 851
- Dilute solutions, apparent specific volumes of polymers in, 547
- Dimethylsiloxane oligomers, end-linked, dielectric relaxation in networks of, 1139
- Dipole moments, studies of cyclic and linear poly(dimethyl siloxanes): 13 Static dielectric measurements and, 1565
- Directionality of the fibre c-axis of cellulose crystallites in microfibrils of Valonia ventricosa, 1547

- Disclinations, dispiration, dislocations, and chain twist in polyethylene crystals, 1387
- Dislocations, dispiration, disclinations, and chain twist in polyethylene crystals, 1387
- Disorders in polymer crystals, an application of Monte Carlo method to simulate, 943
- Dispersion states, of porous inorganic materials in polymer blends observed by inverse gas chromatography, 1596
- Dispiration, disclinations, dislocations, and chain twist in polyethylene crystals, 1387
- Dissolution of polypropylene: differential solubility, 553
- Distortion, temperature dependence of, in poly(ethylene oxide) crystals, 135 Distribution of double bonds in thermally
- degraded polyisobutylene, 428 Domain sizes, theoretical prediction of, in
- IPN's and related materials, 307 Doping, the evolution of polyacetylene morphology upon, 1575
- Drag reduction and mechanical degradation in polymer solutions in flow, 631
- **Drawing behaviour of**  $\beta$ -phase isotactic polypropylene, plastic deformation of oriented lamaellae, 925
- Elastomers, polyurethane microcellular, 1. Effect of chemical composition on tensile strength and elongation at break of poly(ethylene-butylene adipate) based
- systems, 1321
  Electric field, microwave, behaviour of filmforming polymers in, 810
- Electrical discharge treatment of polypropylene film, 47
- Electrical resistivity, low temperature, of carbon-black-loaded polyethylene, 841
- Electroluminescence from polyvinylcarbazole films: 1. Carbazole cations, 733
- from polyvinylcarbazole films: 2 Polyvinylcarbazole films containing antimony pentachloride, 737
- from polyvinylcarbazole, films: 3. Electroluminescent devices, 747
- from polyvinylcarbazole films: 4. Electroluminescence using higher work function cathodes, 753
- Electron diffraction intensity data, crystal structure analysis of polyethylene with,: Deconvolution of multiple scattering effects, 291
- Electron microscopic observations of sulphonated EPDM polymers, 487
- Electron resists:, copolymer, poly(styrenemethyl methacrylate) copolymers, 387
- Electron spin resonance, investigation of environmental effects on polymeric materials: 1. Nylon, 767
- an, investigation of, environmental effects on polymeric materials: 2. Polyethylene,
- Electronic computer, structure of polymer solutions: scaling and modelling on an,
- Elongational flow, the behaviour of polyelectrolyte solutions in; the determination of conformational relaxation times (with an Appendix of an anomalous adsorption effect), 1081
- Energy criterion for modelling creep rupture of high density polyethylene, 1067

  Entanglement models of rubber elasticity,
- experimental tests of,: 1. Uniaxial extension-compression, 1644

- Environmental effects, an e.s.r. investigation of, on polymeric materials: 1. Nylon, 767
- stress cracks, growth rate versus temperature relations characteristic of, in low density polyethylenes and the underlying thermodynamic mechanisms,
- effects, an e.s.r investigation of, on polymeric materials: 2. Polyethylene, 1035
- Epoxidation of cis 1,4-polyisoprene, strain crystallization in random copolymers produced by, 107
- Epoxy, rubber-toughened, deformation and fracture behaviour of a,: 1. Microstructure and fracture studies, 1341
- , rubber-toughened, deformation and fracture behaviour of a: 2. Failure criteria, 1355
- Epoxy resins and polyester resins, the effect of the morphology on the hygroelastic behaviour of, 223
- resins containing polyethersulphone, phase separation in, 639
- DGEBA-anhydride, factors influencing the glass transition of, 851
- Ethers, ethyl and isopropyl vinyl, a study of the cationic copolymerization of, induced by radiation, 1469
- Ethylene, oligomerization of, by several normal butyllithium-amine complexes: 8. Kinetic study, 1203
- Ethylene-propylene diene monomers, sulphonated, behaviour of, in multicomponent/multiphase systems, 300
  - polymers, sulphonated, some electron microscopic observations of, 487
- Eutectic crystallization of PLLA, general crystallization behaviour of poly(L-lactic acid) PLLA: 2., 167
- Excimer fluorescence as a probe of mobility in bulk poly(dimethyl siloxanes), 117
- Extension, small-angle neutron scattering study of the structure of a triblock copolymer of styrene and isoprene during, 275
- and compression experiments on the small-strain behaviour of crosslinked natural rubber: 2., 1502
- -compression, uniaxial, experimental tests of entanglement models of rubber elasticity, 1644
- Failure criteria, deformation and fracture behaviour of a rubber-toughened epoxy: 2., 1355
- Fatigue loading, size and mechanical properties of craze zones at progagating crack tips in poly(methyl methacrylate) during, 1213
- Ferroelectric copolymers, crystallographic changes characterizing the Curie transition in three copolymers of vinylidene fluoride and trifluoroethylene: 1. As-crystallized samples, 1225
- , crystallographic changes characterizing the Curie transition in three of vinylidene fluoride and trifluoroethylene: 2. Oriented or poled samples, 1233
- Film, styrene-butadiene copolymer, with bound synergistic stabilizers, protection of, against ferric stearate-catalysed photo-oxidative degradation at elevated temperature, 229

- Film-forming polymers, behaviour of, in a microwave electric field, 810
- Films, polyvinylcarbazole, electroluminescence from: 1. Carbazole cations, 733
- polyvinylcarbazole, electroluminescence from: 2. Polyvinylcarbazole films containing antimony pentachloride, 737
- -, polyvinylcarbazole, electroluminescence from,: 3. Electroluminescent devices, 747
- polyvinylcarbazole, electroluminescence from: 4. Electroluminescence using higher work function cathodes, 753
- Flammability, the significance of thermoanalytical measurements in the assessment of polymer, 834
- Flexibility, the conformational origin of flexibility and stiffness in poly(olefin sulphones) demonstrated by means of dynamic <sup>13</sup>C n.m.r. measurements, 1571
- Flow, drag reduction and mechanical degradation in polymer solutions in, 631
- Fluorescence, excimer, as a probe of mobility in bulk poly(dimethyl siloxanes), 117
- polarization, time-dependent, comparison between end-bond and internal-bond relaxation of polystyrene in dilute solution: an investigation by, 205
- polarization, orientation of polystyrene chains stretched above T<sub>g</sub> as studied by, 379
- probe for microenvironments: On the fluorescence proterties of p-N,Ndialkylaminobenzylidenamalononitrile in polymer matrices, 439
- Folding, roughness of growth faces of polymer crystals: Evidence from morphology and implications for growth mechanisms and types of, 1401
- Fourier transform infra-red and thermal analysis studies of blends of poly(εcaprolactone) with homo- and copolymers of poly(vinylidene chloride),
- -, studies of polymer blends containing the poly(hydroxy ether of bisphenol A) and poly(\varepsilon-caprolactone), 251
- study of the phase behaviour of polymer blends. Ethylene-vinyl acetate copolymer blends with poly(vinyl chloride) and chlorinated polyethylene, 1410
- Fracture of poly(methyl methacrylate) PMMA, influence of molecular weight on the, 344
- mode and network structure of natural rubber vulcanizates, thermo-oxidative ageing and its effect on the, 1042
- mode, polymer-filler interaction, and technical properties of carboxylated nitrile rubber, effect of curing systems on, 1055
- behaviour, deformation and, of a rubbertoughened epoxy: 1. Microstructure and fracture studies, 1341
- behaviour, deformation and, of a rubbertoughened epoxy: 2. Failure criteria, 1355
- polyethylene, importance of tie molecules in preventing, under long-term loading conditions, 1647
- Free-radical, polymerization, non-classical,:
  3. Diffusion-control in degradative
  addition, 433
- Free volume theory, polymer-cosolvent systems: 7. The application of, to the classical cosolvent systems formed from polystyrene in acetone and n-alkanes, 1453

- Friedel-Crafts crosslinking methods for polystyrene modification: 1. Preparation and kinetics, 209
- methods for polystyrene modification:
   T<sub>g</sub>T<sub>il</sub> and T<sub>il</sub> transitions of grafted polystyrene, 898
- Functionalized polymers, recent developments in the application of, in organic synthesis, 1369
- Gas chromatographic evaluation of thermodynamic interaction parameters for the water-poly(ethylene oxide) system, 323
- Gas-liquid chromatography, determination of the interaction parameter χ of poly(ethylene oxide) by, below the melting temperature, 417
- compositional analysis by, of monomer feed in copolymerization – errors due to adsorption of monomer to copolymers, 729
- study of poly(ethylene oxide)-solvent interactions: estimation of polymer solubility parameter, 865
- --, polymerization of lactams: 57., and n.m.r. analysis of the anionic copolymers of 2pyrrolidone with 6-caprolactam and 8octanelactam, 1491
- Gel formation and liquid crystalline order in cellulose triacete solutions, 815
- Gel permeation chromatography, molecular fractionation in melt-crystallized polyethylene: 2. Effect of solvent extraction on the structure as studied by differential scanning calorimetry and, 1532
- Gelatin gels, ultimate tensile measurements of filled, 481
- gels, influence of thermal treatments on the structure and stability of, 537
- -, solid, the structure and properties of, and the principles of their modification, 651
- -, ionomer, viscosity of, 77
- -, gelatin, ultimate tensile measurements of filled, 481
- , gelatin, influence of thermal treatments on the structure and stability of, 537
- polyacrylamide, effects of inhomogeneities in, on thermodynamic and transport properties, 1273
- Gibbs-DiMarzio theory of the glass transition, influence of free volume fraction, inter/intramolecular energy ratio, and chain segment density on the, 513
- Glass transition, influence of free volume fraction, inter/intramolecular energy ratio, and chain segment density on the Gibbs-DiMarzio theory of the, 513
- of DGEBA-anhydride epoxy resins, factors influencing the, 851
- temperature, change of the amorphous state by heat treatment below the, 877
- Glassy polymers, on the workhardening rate of,: 1. Application to the physical ageing of atactic PMMA, 476
- Glow Discharge, spin trapping of radicals produced by, on low-density polyethylene, 1581
- Growth faces, of polymer crystals, roughness of, evidence from morphology and implications for growth mechanisms and types of folding, 1401
- mechanisms and types of folding, roughness of growth faces of polymer crystals: Evidence from morphology and implications for, 1401

- Grüneisen, the relationship between the, and other thermodynamic parameters and intermolecular forces in polymers, 314
- Gyration, calculations of radii of, studies of cyclic and linear poly(dimethyl siloxanes): 10., 391
- Halatopolymers, X-ray diffraction studies of some. 271
- Heat treatment, change of the amorphous state by, below the glass transition temperature, 877
- Heterogeneous block copolymers, singlechain scattering in, 519
- reactions of polymers: 4. melting behaviour of heterogeneously chlorinated and sulphonated polyethylenes, 583
- Hexagonal lattices, two-dimensional random coil chains on, 409
- Hydrogen bonding and bound water in polyhydroxystyrene derivatives, relationship between, 871
- Hydrogen bonds, theoretical study on the nature of the, in an  $\alpha$ -helical polymer and its model systems, 1639
- Hydroxyoxime ion-exchange resins, metal specific, 423
- 4-Hydroxy-stilbene acrylate, photochemistry and photophysics of copolymers of (-)-menthyl acrylate with, 95
- p-Hydroxystyrene resins, poly(p-tertbutoxycarbonyloxystyrene,: a convenient precursor to, 995
- Hygroelastic behaviour of polyester and epoxy resins, effect of morphology on the, 223
- Image digitizer: analysis of ultracentrifugation interference patterns with, application to molecular weight determination of SRM 1478 polystyrene, 1541
- **Impact strength**, improved low temperature, of polypropylene by modification with polyethylene, 365
- Incompatibility, influence of, on hardsegment length of segmented polyurethanes, 1327
- , structure and morphology of segmented polyurethanes: 2. Influence of reactant, 1333
- Infra-red, far, spectrum of poly(vinyl chloride), 823
- Inhomogeneities, effects of, in polyacrylamide gels on thermodynamic and transport properties, 1273
- Initiation, the monometallic, of the methathesis polymerization of cyclopentene, 1317
- reaction, the spontaneous polymerization of methyl methacrylate: 6.
   Polymerization in solution: participation of transfer agents in the, 1473

- Interaction of polyvinylpyrrolidone with small consolutes in aqueous and non aqueous media, 91
- parameters, thermodynamic, gas chromatographic evaluation of for the water-poly(ethylene oxide) system, 323
- parameter  $\chi$ , determination of the, of poly(ethylene oxide) by gas-liquid chromatography below the melting temperature, 417
- -, of polybutadienllithium with N,N,N',N'tetramethylethylenediamine in benzene, a viscometric study of the, 543
- constant, mutual, of stereopolymers. Stereocomplexes in solutions of syndioand isotactic poly(methyl methacrylate) mixtures, 719
- polymer-filler, technical properties and fracture mode of carboxylated nitrile rubber, effect of curing systems on, 1055
- Interactions; poly(ethylene oxide)-solvent, gas-liquid chromatography study of,: estimation of polymer solubility parameter, 865
- Intermolecular forces in polymers, the relationship between the Grüneisen and other thermodynamic parameters and,
- Internal motion, the influence of polymer concentration on the, -intramolecular pyrene excimer formation—of a low molecular weight probe in solution, 473
- Interphase structure, block copolymer, smallangle neutron scattering measurement of, 1089
- Interstitial polymers based on a polyurethane network: 1. Melting points and fractional crystallinities, 279
- Inverse gas chromatography, dispersion states of porous inorganic materials in polymer blends observed by, 1596
- Iodine and vacuum-cyclized polyacrylonitrile, conducting complexes of, 800
- -doped polyacetylene, X-ray diffraction studies of, 1558
- Ion-exchange resins, hydroxyoxime, metal specific, 423
- Ionene, elastomeric, effect of poly(propylene oxide) segment size on structure-property relationships in, 491
- Ionomer gels, viscosity of, 77
- Isomerism, directional, a statistical theory of, in polymer chains and its applications of poly(vinylidene fluoride), 179
- Isopropyl vinyl ether, radiation-induced cationic polymerization of, in bulk and invarious solvents, 513
- Kinetic study of oligomerization of ethylene by several normal butyllithium-amine complexes, 1203
- Kinetics, crystallization, of poly(L-lactic acid),
- of ligand exchange reaction of Cu(II)ammine complex with poly(vinyl alcohol) in aqueous solution, 335
- and mechanism of urea-formaldehyde reaction, 626
- of crystallization, influence of molar mass and catalysts on the, and on the orientation of poly(ethylene terephthalate), 1008

- -, models for the formation of poly(butylene terephthalate);, of the titanium tetrabutylate-catalysed reactions: 2., 1479
- -, deformation, of ageing materials, 1551
- -, of isothermal crystallization of branched polyethylene, on the, 1585
- of non-isothermal crystallization of polyethylene and polypropylene, 1593
- Lactams, polymerization of, 57. G.l.c. and n.m.r. analysis of the anionic copolymers of 2-pyrrolidone with 6-caprolactam and 8-octanelactam, 1491
- Lactic acid, stereocopolymers, configurational structures of, as determined by <sup>13</sup>C-{<sup>1</sup>H} n.m.r., 53
- Ligand exchange reaction, of Cu(II)-ammine complex with poly(vinyl alcohol) in aqueous solution, kinetics of, 335
- Light scattering and proton n.m.r. study of aggregation behaviour of stereoregular poly(methyl methacrylates) in dilute solution, 700
- Liquid crystal state, reorganization of polyesters in the, as an example of crystallization-induced reactions of copolymers, 327
- Liquid crystalline order and gel formation in cellulose triacete solutions, 815
- , aromatic, copolyesters prepared from 4hydroxybenzoic acid and 2-hydroxy-6naphthoic acid, the structure of, 937
- polymers, thermotropic, measurement of molecular orientation in, 1513
- Low-angle laser light scattering from polystyrene solutions: intensity measurements and photon correlation spectroscopy, 1097
- Lower critical solution temperatures polymer-cosolvent systems: 5. Upper and, of polystyrene in n-alkanes, 1445
- Macrokinetics of polymer crystallization, 81 Maleic anhydride, <sup>13</sup>C and <sup>1</sup>H n.m.r. study of the polyesterification of, and 1,2propylene glycol, 611
- Magnesium chloride, magnesium alkyl reduced titanium (IV) chloride based polymerization catalysts: materials rich
- Mechanical behaviour of isotatic polypropylene subjected to various strain histories in uniaxial extension, 351
- properties of tetramethyl-p silphenylensiloxane/dimethylsiloxane block copolymer, 463
- degradation and drag reduction in polymer solutions in flow, 631
- properties, the solid-state polymerization and physical properties of bis(ethyl urethane) of 2,4-hexadiyne-1,6-diol: 3.,
- properties, dynamic, of a polycarbonate/polystyrene copolymer: Effects of casting solvent, 1171
- properties, size and, of craze zones, at propagating crack tips in poly(methyl methacrylate) during fatigue loading,

- Mechanism, kinetics and, of ureaformaldehyde reaction, 626
- Melt rheology of polymer waste from melt flow index, estimation of the, 722
- Melt flow index, estimation of the melt rheology of polymer waste fro, 722
- Melting, effect of pressure on the, and crystallization behaviour of isotactic polybutene-1, 141
- behaviour of heterogeneously chlorinated and sulphonated polyethylenes, heterogeneous reactions of polymers, 583
- temperature, the equilibrium, of cispolyisoprene, 1623
- Membranes, studies on the syntheses and permeabilities of special polymer,: 50. Transport of metal ions against their concentration gradient through waterinsoluble poly(styrene sulphonic acid) membrane, 559
- (-)Menthyl acrylate, photochemistry and photophysics of copolymers of, with 4hydroxy-stilbene acrylate, 95
- Metal specific hydroxyoxime ion-exchange resins, 423
- Metathesis polymerization of cyclopentene, the monometallic initiation of the, 1317
- Methyl methacrylate, the spontaneous polymerization of,: 6. Polymerization in solution: participation of transfer agents in the initiation reaction, 1473
- N,N'-Methylenebisacrylamide, polymerization of, initiated by CEIVthiourea redox system, 906
- Microcellular, elastomers, polyurethane,: 1. Effect of chemical composition on tensile strength and elongation at break of poly(ethylene-butylene adipate) based systems, 1321
- Microenvironments, fluorescence probe for, on the fluorescence proterties of p-N,Ndialkylaminobenzylidenemolononitrile in polymer matrices, 439
- Micromechanics, craze, molecular weight distribution effects on, 1063
- Microwave electric field, behaviour of filmforming polymers in a, 810
- Microstructure and fracture studies, deformation and fracture behaviour of a rubber-toughened epoxy: 1., 1341
- Miscibility, the effect of molecular weight and casting solvent on the, of polystyrene-poly(α-methyl styrene) blends, 60
- -, of oligomeric poly(dimethyl siloxanes) with long-chain unbranched alkanes: 2. Unsymmetrical cloud point curves, 1434
- Model dependence of interpretation of quasielastic light scattering data for flexible chains, 383
- Models for the formation of poly(butylene terephthalate): Kinetics of the titanium tetrabutylate-catalysed reactions: 2., 1479
- Modification, polystyrene, Friedel-Crafts crosslinking methods for: 1. Preparation and kinetics, 209
- of the properties of some polyblends and reinforced polymers, 359
- Molecular association complex of urea with polyethylene: 3. Structural studies of the complex, 149
- Molecular fractionation, in melt-crystallized polyethylene: 1. Differential scanning calorimetry, 1521
- in melt-crystallized polyethylene: 2. Effect of solvent extraction on the structure as studied by differential scanning calorimetry and gel permeation chromatography, 1532

- Molecular motion of polycarbonate in the vicinity of -60° as revealed by broad-line n.m.r. magic angle spinning n.m.r. and conformational analysis, 667
- in poly(amino acid)s: 7. Molecular motion in the  $\beta$ -form crystal of silk fibre,
- Molecular orientation, the determination of, in uniaxially compressed PMMA by Xray scattering, 285
- -, measurement of, in thermotropic liquid crystalline polymers, 1513
- Molecular weight, influence of, on the fracture of poly(methyl methacrylate) **PMMA**, 344
- determinations of polyamides by Ntrifuoroacetylation, 72
- Molecular weights, average, and intrinsic unequal reactivity in non-linear stepwise polymerization, 587
- average, and substitution effects in non-
- linear stepwise polymerization, 591

  Molecular weight determination, analysis of ultracentrifugation interference patterns with image digitizer: Application to, of SRM 1478 Polystyrene, 1541
- Molecular weight distribution of poly(ethylene oxide), change in the, caused by the complexation with poly(acrylic acid), 1031
- Molecular weight distribution effects on craze micromechanics, 1063
- of solvent extracts of fat-simulating and accelerating solvents for polyolefins and polyethylenes, 1267
- Molecular weight distributions in novolactype phenol-formaldehyde polymerization, 1180
- Molecular weight probe, low, in solution, the influence of polymer concentration on the internal motion - intramolecular pyrene excimer formation - of a, 473
- Monomer complexes, role of the copolymerization of methyl methacrylate and isoprene in the presence of ethyl aluminium sesquichloride, 565
- Monte Carlo, method, an application of, to simulate disorders in polymer crystals,
- Morphology, the effect of the, on the hygroelastic behaviour of polyester and epoxy resins, 223
- of polyethylenes produced by aluminasupported zirconium tetrabenzyl, 889
- of poly(aryl-ether-ether ketone), 953
- and structure of segmented polyurethanes: 1. Influence of incompatability on hard-segment sequence length, 1327
- and structure of segmented polyurethanes: 2. Influence of reactant incompatibility, 1333
- , polyacetylene, the evolution of, upon doping, 1575
- Multicomponent, solvent compositions, optimum, for polymers using a multiple regression program, calculation of, 193
- /multiphase systems, behaviour of sulphon and FPDM in, 300
- Multiphase multicomponent/systems behaviour of sulphonated EPDM in, 300
- Multiple scattering in small-angle neutron scattering measurements on polymers,

- Nematic phase, polymeric, preliminary observations of defects in a, 295
- Network, interstitial polymers based on a polyurethane,: 1. Melting points and fractional crystallinities, 279
- Network structure and fracture mode of natural rubber vulcanizates, thermooxidative ageing and its effect on the,
- Networks, polyurethane-poly(methyl methacrylate) interpenetrating polymer, 1. Early steps and kinetics of network formation; intersystem grafting, 65
- interpenetrating polymer, theoretical prediction of domain sizes in, and in related materials, 307
- polyurethane, the structure and elasticity of,: 1. Model of poly(oxypropylene) triols and diisocyante, 981
- of end-linked dimethylsiloxane oligomers, dielectric relaxation in, 1139
- polyurethane-poly(methyl methacrylate) interpenetrating polymer networks:, 2. Influence of compositional parameters on the synthesis: physical properties, 1415
- -, transition behaviour of polyurethanepoly(methyl methacrylate) interpenetrating polymer, 1419
- , co-operative diffusion of semi-dilute solutions, concentrated solutions and swollen, for polystyrene in dibutylphthalate, 1601
- Neutron scattering, small-angle, of partially segregated polymer blends, 43
- quasielastic, observation of diffusion behaviour by, in studies of cyclic and linear poly(dimethyl siloxanes): 12., 793
- Novolac-type phenol-formaldehyde polymerization, molecular weight distributions in, 1180
- Nuclear magnetic resonance, broad line, the  $\alpha$  and  $\beta$  structural forms of poly(tetramethylene terephthalate): a study by, 30
- <sup>13</sup>C-{<sup>1</sup>H}, configurational structures of lactic acid stereocopolymers as determined by, 53
- -, FT-pulsed field gradient, self-diffusion of poly(ethylene oxide) in aqueous dextran solutions measured using, 188
- properties associated with a submolecule model, a description of, in strongly entangled polymer chains in a melt, 400
- studies on sequence distributions in vinyl alcohol-vinyl acetate copolymers, 507
- 13C and 1H, study of the polyesterification of maleic anhydride and 1,2-propylene glycol, 611
- -, broad-line, magic angle spinning, and conformational analysis, molecular motion of polycarbonate in the vicinity of  $-60^{\circ}$ C as revealed by, 667
- , proton, and light scattering study of aggregation behaviour of stereoregular polymethyl methacrylates) in dilute solution, 700
- , field-gradient technique, modified, molecular weight and temperature dependence of self-diffusion coefficients in polyethylene and polystyrene melts investigated using a, 964
- Rouse and reptation models of entangled linear polymer chains in melts; stress relaxation, 1128
- high resolution solid state 13C, of butadiene grafted polypropylene, 1252, 1H, at 100 MHz, anionic polymerization
- of isoprene by the complexes oligoisoprenyllithium/tertiary polyamines

- in cyclohexane: 3. Structural study of the
- polymers by, 1291 <sup>13</sup>C, chemical shielding tensor elements of solid poly(methyl methacrylate), 1425
- -, polymerization of lactams: 57. G.l.c. and, analysis of the anionic copolymers of 2pyrrolidone with 6-caprolactam and 8-
- octanelactam, 1491

  13C, the conformational origin of flexibility and stiffness in poly(olefin sulphones) demonstrated by means of dynamic measurements, 1571
- Nylon, an e.s.r. investigation of environmental effects on polymeric materials: 1., 767
- Nylon-6, some studies on polyblends of poly(p-phenyleneterephthalamide) and,
- -, the diffusion of salt solutions into, 1001
- Oligomerization, of ethylene by several normal butyllithium-amine complexes: 8. Kinetic study, 1203
- Optically active polymers containing sidechain benzophenone chromophores, 101
- Organotin polymers:, 6. Copolymerization parameters for tri-n-butylin maleate, acrylate and methacrylate with some vinyl monomers, 1635
- Orientation of polystyrene chains stretched above  $T_g$  as studied by fluorescence polarization, 379
- distribution function of crystallites, static and dynamic deformation mechanisms of a high-density polyethylene having rownucleated crystalline texture of a-axis orientation as observed by, 1113
- and relaxation in uniaxially stretched atactic polystyrene, 1240
- Oxiran, polyesterification of solid dicarboxylic acids by, 1615
- Particle size from optical anisotropy effects in scattered light, 991
- Permittivity, flow-modified, or solutions of poly(n-butyl isocyanate) and poly(n-hexyl isocyanate), 859
- Phase behaviour of rod-like particles in solution, model calculations of the,: Polydisperse systems having asymmetric distributions of rod-lengths, 85
- transition at a temperature immediately below the melting point of poly(vinylidene fluoride) form 1: A proposition for the ferroelectric Curie point, 199
- separation in epoxy resins containing polyethersulphone, 639
- separation in blends of homopolymer and graft copolymer based on styrene and butadiene, 1259
- behaviour of polymer blends, a Fourier transform infra-red study of the, ethylene-vinyl acetate copolymer blends with poly(vinyl chloride) and chlorinated polyethylene, 1410
- behaviour, polymer-cosolvent systems: 6. of polystyrene in binary mixed solvents of acetone with n-alkanes-examples of 'classic cosolvency', 1449
- separation temperatures in the polystyrene-poly(α-methyl styrene)methylcyclohexane system, 1631

- Photochemistry and photophysics of copolymers of (-)-menthyl acrylate with 4-hydroxy-stilbene acrylate, 95
- Photoinitiators, a new class of highly efficient polymerization, polymers containing side-chain benzophenone chromophores,
- Photon correlation spectroscopy, low-angle laser light scattering from polystyrene solutions intensity measurements and,
- Photophysics and photochemistry of copolymers of (-)-menthyl acrylate with 4-hydroxy-stilbene acrylate, 95
- Photosensitive polymer exhibiting chemical amplification, chemically modified polystyrene containing pendant vinyl groups, 114
- Physical properties, polyurethanepoly(methyl methacrylate) interpenetrating polymer networks: 2. Influence of compositional parameters on the synthesis:, 1415
- Poly(acetylene), direct evidence for chain orientation in, 805
- , X-ray diffraction studies of iodine-doped, 1558
- morphology, the evolution of, upon doping, 1575
- Poly(acetylene hydrogen sulphate), highly conducting polymers based on, preparation and stability studies, 1294
- Polyacrylamide gels, effects of inhomogeneities in, on thermodynamic and transport properties, 1273
- Poly(acrylic acid), change in the molecular weight distribution of poly(ethylene oxide) caused by the complexation with,
- Polyacrylonitrile structural order in alkalidegraded, as seen in studies of lowtemperature thermal conductivity, 258
- vacuum-cyclized, and iodine, conducting complexes of, 800
- Polyamide-6 macromolecules, investigation of conformational transitions in, in mixtures of m-cresol and methanol, 1590
- Polyamides, molecular weight determinations of, by N trifluoroacetylation, 72
- Poly(amino acid)s, molecular motion in,: 7. Molecular motion in the  $\beta$ -form crystal of silk fibre, 820
- Poly(aryl-ether-ether ketone), the morphology of, 953
- Polyblends and reinforced polymers, modification of the properties of some,
- of poly(p-phenyleneterphthalamide) and nylon-6, some studies on, 621
- morphologies and properties of, 1. Blends of poly(methyl methacrylate) and a chlorine-containing polycarbonate, 1162
- Polybutadienes, high 1,4-telechelic, a novel approach to the synthesis of by an anionic route, 883
- Polybutadienyllithium, a viscometric study of the interaction of, with N,N,N',N'tetramethylethylenediamine in benzene,
- Polybutene-1, isotactic, effect of pressure on the melting and crystallization behaviour of, 141
- Poly(p-tert-butoxycarbonyloxystyrene): a convenient precursor to p-hydroxystyrene resins, 995

- Poly(n-butyl isocyanate) and poly(n-hexyl isocyanate), flow modified permittivity of solutions of, 859
- Poly(butylene terephthalate), models for the formation of, kinetics of the titanium tetrabutylate-catalysed reactions: 2., 1479
- Poly( $\varepsilon$ -caprolactone), FT-i.r. and thermal analysis studies of blends of, with homoand copolymers of poly(vinylidene chloride), 37
- , FT-i.r. studies of polymer blends containing the poly(hydroxy ether of bisphenol A) and, 251
- Polycarbonate, molecular motion of, in the vicinity of -60°C as revealed by broadline n.m.r. magic angle spinning n.m.r. and conformational analysis, 667
- effect of thermal history on the tensile yield stress of, in the  $\beta$  transition range,
- -, morphologies and properties of polyblends: 1. Blends of poly(methyl methacrylate) and a chlorine-containing,
- /polystyrene copolymer, dynamic mechanical properties of a, effects of casting solvent, 1171
- Polycondensation of benzyl chloride catalysed by ArCr(CO)3, 707
- Poly(2,6-dimethyl-1,4-phenylene oxide), compatibility of poly(p-fluorostyrene-coo-fluorostyrene) with, and polystyrene,
- Poly(dimethyl siloxane) blocks, formation of copolymer containing polytetrahydrofuran and, 217
- chains, applications of the pyrene excimer technique to the internal dynamics of, cyclization dynamics of polymers, 319
- Poly(dimethyl siloxanes), excimer fluorescence as a probe of mobility in bulk, 117
- , studies of cyclic and linear,: 10. Calculations of radii of gyration, 391
- studies of cyclic and linear,: 11. Shapes of ring and chain molecules, 395
- studies of cyclic and linear,: 12. Observation of diffusion behaviour by quasielastic neutron scattering, 793
- -, miscibility of oligomeric, with long chain unbranched alkanes: 2. Unsymmetrical cloud point curves, 1434
- , studies of cyclic and linear,: 13. static dielectric measurements and dipole moments, 1565
- Poly-2,5-dimethyl-4-vinylethynilpyrediodol-4 hydrochloride, complexation of, with transition metal ions in solution, 607
- Polydisperse systems having asymmetric distributions of rod-lengths in model calculations of the phase behaviour of rod-like particles in solution, 85
- Polyelectrolyte, solutions in elongational flow; the behaviour of, the determination of conformational relaxation times (with an Appendix of an anomalous adsorption effect), 1081
- Polyester and epoxy resins, the effect of the morphology on the hydroelastic behaviour of, 223
- Polyesteramides, transitions in linear thermotropic, 1610
- Polyesterification, <sup>13</sup>C and <sup>1</sup>H n.m.r. study of the, of maleic anhydride and 1,2-Propylene glycol, 611
- of solid dicarbozylic acids by oxiran,

- Polyesters, reorganization of, in the liquid crystal state, as an example crystallization-induced reactions of copolymers, 327
- unsaturated, based on bis(2hydroxyethyl)terephthalate, 469
- Polyethersulphone, phase separation in epoxy resins containing, 639
- Polyethylene, ultra-high modulus linear, crystallite thickness measurements on, effect of draw temperature, 27
- , molecular association complex of urea with,: 3. Structural studies of the complex, 149
- , ultra-high molecular weight linear, effect of high-energy radiation on the uniaxial tensile creep behaviour of, 160
- chlorinated, a thermodynamic interpretation of the compatibility of, with poly(methyl methacrylate), 263
- -, crystal structure analysis of, with electron diffraction intensity data: Deconvolution of multiple scattering effects, 291
- improved low temperature impact strength of polypropylene by modification with, 365
- carbon-black-loaded, low temperature electrical resistivity of, 841
- molecular weight and temperature dependence of self-diffusion coefficients in, and polystyrene melts investigated using modified n.m.r. field-gradient technique, 964
- an e.s.r. investigation of environmental effects on polymeric materials: 2, 1035
- high density, energy criterion for modelling creep rupture of, 1067
- high-density, static and dynamic deformation mechanisms of a, having row-nucleated crystalline texture of aaxis orientation as observed by orientation distribution function of crystallites, 1113
- crystals, dispiration, disclinations, dislocations and chain twist in, 1387
- a fourier transform infra-red study of the phase behaviour of polymer blends. Ethylene-vinyl acetate copolymer blends with poly(vinyl chloride) and chlorinated, 1410
- , molecular fractionation in meltcrystallized,: 1. Differential scanning calorimetry, 1521
- -, molecular fractionation in meltcrystallized, 2. Effect of solvent extraction on the structure as studied by differential scanning calorimetry and gel permeation chromatography, 1532
- -, low-density, spin trapping of radicals produced by glow discharge on, 1581
- branched, on the kinetics of isothermal crystallization of, 1585
- kinetics of non-isothermal crystallization of, and polypropylene, 1593
- fracture, importance of tie molecules in preventing, under long-term loading conditions, 1647
- Polyethylenes, high density, slow stable crack growth in, 234
- melting behaviour of heterogeneously chlorinated and sulphonated heterogeneous reactions of polymers, 583
- , low density, growth rate versus temperature relations characteristic of environmental stress cracks in, and the underlying thermodynamic mechanism,

- produced by alumina-supported zirconium tetrabenzyl, morphology of, 889
- --, fat-simulating and accelerating solvents for polyolefins and MWD of solvent extracts of, 1267
- -, chlorinated, compatibility among, 1279
- Poly(ethylene-butylene adipate) based systems, polyurethane microcellular elastomers: 1. Effect of chemical composition on tensile strength and elongation at break of, 1321
- Poly(ethylene glycol) chains, influence of chain length on conformations of, grafted on silica, 959
- Poly(ethylene oxide) crystals, temperature dependence of distortion in, 135
- --, self-diffusion of, in aqueous dextran solutions measured using FT-pulsed field gradient n.m.r., 188
- water system, gas chromatographic evaluation of thermodynamic interaction parameters for the, 323
- —, determination of the interaction parameter χ of, by gas-liquid chromatography below the melting temperature, 417
- solvent interactions, gas-liquid chromatography study of,: estimation of polymer solubility parameter, 865
- --, change in the molecular weight distribution of, caused by the complexation with poly(acrylic acid), 1031
- Poly(ethylene terephthalate), reactors, simulation of cyclics and degradation product formation in, 449
- kinetics and of crystallization and orientation, influence of molar mass and catalysts on the, 1008
- —, a structural study of the tensile drawing behaviour of, 1103
- -, the effect of physical ageing on the properties of, 1245
- Poly(p-fluorostyrene-co-o-fluorostyrene), compatability of, with poly(2,6-dimethyl-1,4-phenylene oxide) and polystyrene, 529
- Poly(n-hexyl isocyanate), flow-modified permittivity of solutions of, and poly(n-hexyl isocyanate), 859
- Poly(hydroxy ether of bisphenol A), FT-i.r. studies of polymer blends containing the, and poly(ε-caprolactone), 251
- Polyhydroxystyrene derivatives, relationship between hydrogen bonding and bound water in, 871
- cis 1,4-Polyisoprene, strain crystallization in random copolymers produced by epoxidation of, 107
- cis-Polyisoprene, the equilibrium melting temperature of, 1623
- Poly(L-lactic acid), general crystallization behaviour of, PLLA: 2. Eutectic crystallization of PLLA, 167
- crystallization kinetics of, 175
- Poly(lactic acid), radiation effects on, 827 Polymer flammability, the significance of thermoanalytical measurements in the assessment of, 834
- Polymer-cosolvent, systems: 5. Upper and lower critical solution temperatures of polystyrene in n-alkanes, 1445
- -, systems: 6. Phase behaviour of polystyrene in binary mixed solvents of acetone with n-alkanes-examples of 'classic cosolvency', 1449
- , systems: 7. The application of free volume theory to the classical cosolvent systems formed from polystyrene in acetone and n-alkanes, 1453

- Polymer crystals, roughness of growth faces of, Evidence from morphology and implications for growth mechanisms and types of folding, 1401
- Polymer matrices, fluorescence probe for microenvironments: On the fluorescence properties of p-N,N-dialkylaminobenzylidenemalononitrile, in, 430
- Polymer solutions, structure of, scaling and modelling on an electronic computer, 1145
- Polymer waste, estimation of the melt rheology of, from melt flow index, 722
- Polymeric nematic phase, preliminary observations of defects in a, 295
- Polymerization catalysts, magnesium alkyl reduced titanium (IV) chloride based,: materials rich in magnesium chloride, 121
- conditions, the influence of, on the tacticity of poly(N-vinyl-2-pyrrolidone), 330
- -, non-classical free-radical,: 3. Diffusioncontrol in degradative addition, 433
- of styrene, effect of shear rate on the rate of, 443
- --, living anionic, synthesis of tetramethyl-psilphenylensiloxane/dimethylsiloxane triblock copolymer by employing, 457
- radiation-induced cationic, of isopropyl vinyl ether in bulk and in various solvents, 513
- —, anionic, of α,α-disubstituted βpropiolactones with cryptates as counterions, 578
- , intrinsic unequal reactivity and average molecular weights in non-linear stepwise, 587
- , substitution effects and average molecular weights in non-linear stepwise, 591
- photoinitiators, a new class of highly efficient, polymers containing side-chain benzophenone chromophores, 599
- N,N'-methylenebisacrylamide initiated by CE<sup>IV</sup>-thiourea redox system, 906
- cationic, system of trioxane, generation of orthorhombic polyoxymethylene in a, 915
- --, the solid-state, and physical properties of bis(ethyl urethane) of 2,4-hexadiyne-1,6diol: 3. Mechanical properties, 1023
- molecular weight distributions in novolac-type phenol-formaldehyde, 1180
- --, anionic, of isoprene by the complexes aligoisoprenyllithium/tertiary polyamines in cyclohexane: 3. Structural study of the polymers by <sup>1</sup>H n.m.r. at 100 MHz, 1291
- , the spontaneous, of methyl methacrylate:
   6. Polymerization in solution:
   participation of transfer agents in the initiation reaction, 1473
- Solid-state, of N-substituted acrylamides:3., 1484
- of lactams: 57. G.l.c. and n.m.r. analysis of the anionic copolymers of 2pyrrolidone with 6-caprolactam and 8octanelactam, 1491
- Polymers, apparent specific volumes of, in dilute solutions, 547
- Poly(methyl methacrylate)—polyurethane interpenetrating polymer networks: 1. Early steps and kinetics of network formation; intersystem grafting, 65
- , a thermodynamic interpretation of the compatibility of chlorinated polyethylene with, 263

- --, the determination of molecular orientation in uniaxially compressed, by X-ray scattering, 285
- PMMA, influence of molecular weight of the fracture of, 344
- , atactic, application to the physical ageing of; on the workhardening rate of glassy polymers, 476
- , stereoregular, aggregation behaviour of, in dilute solution: light scattering and proton n.m.r. study, 700
- mixtures, stereocomplexes in solutions of syndio- and isotactic,: 1. Aggregation time and character of aggregated particles in different solvents, 713
- --, syndio- and isotactic, stereocomplexes in solutions of, mixtures 2. Mutual interaction constant of stereopolymers, 719
- , stereocomplex formation of, in cosolvent mixtures, 903
- , vibrational spectra and structure of stereoregular, and of the stereocomplex, 971
- -, syndiotactic, conformational transition in,: 6. Mono- and dichlorobenzene, 1015
- --, morphologies and properties of polyblends: 1. Blends of, and a chlorinecontaining polycarbonate, 1162
- size and mechanical properties of craze zones at propagating crack tips in, during fatigue loading, 1213
- -, <sup>13</sup>C n.m.r. chemical shielding tensor elements of solid, 1425
- poly(olefin sulphones), the conformational origin of flexibility and stiffness in, demonstrated by means of dynamic C<sup>13</sup> n.m.r. measurements, 1571
- Polyolefins, fat-simulating and accelerating solvents for, and MWD of solvent extracts of polyethylenes, 1267
- Polyoxymethylene, orthorhombic, generation of, in a cationic polymerization system of trioxane, 915
- Poly(oxyproplene) triols and diisocyanate, model of, as an example of the structure and elasticity of polyurethane networks,
- Poly(p-phenyleneterephthalamide) and nylon-6, some studies on polyblends of, 621
- Poly(N-phenylmethacrylamide), radical, living, synthetis of block copolymer by the reaction of, with vinyl monomers, 1018
- Polypropylene film, electrical discharge treatment of, 47
- , isotactic, mechanical behaviour of, subjected to various strain histories in uniaxial extension, 351
- improved low temperature impact strength of, by modification with polyethylene, 365
- -, dissolution of,: differential solubility, 553
- -, isotactic, crystallization behaviour of fractions of, with different degrees of stereoregularity, 693
- β-phase isotactic, drawing behaviour of, plastic deformation of oriented lamaellae,
- -, butadiene grafted, high resolution solid state <sup>13</sup>C n.m.r. of, 1252
- properties of thin films of isotactic, blended with polyisobutylene and ethylene-propylene-diene terpolymer rubbers, 1458
- kinetics of non-isothermal crystallization of polyethylene and, 1593

- Poly(propylene oxide) segment size effect of, on structure-property relationships in elastomeric ionene, 491
- Polystyrene, chemically modified, containing pendant vinyl groups: a photosensitive polymer exhibiting chemical amplification, 114
- comparison between end-bond and internal-bond relaxation of, in dilute solution: an investigation by timedependent fluorescence polarization, 205
- modification, Friedel-Crafts crosslinking methods for, 1. Preparation and kinetics,
- chains stretched above  $T_g$ , orientation of, as studied by fluorescence polarization,
- , compatability of poly(p-fluorostyrene-coo-fluorostyrene) with poly(2,6-dimethyl-1,4-phenylene oxide) and, 529
- solutions, self and mutual diffusion measurements in dilute and semi-dilute,
- modification, Friedel-Crafts crosslinking methods for,:  $T_gT_{ii}$  and  $T'_{ii}$  transitions of grafted polystyrene, 898
- molecular weight and temperature dependence of self-diffusion coefficients in polyethylene and, melts investigated using a modified n.m.r. field-gradient technique, 964
- solutions, low-angle laser light scattering from,: intensity measurements and photon correlation spectroscopy, 1097
- , orientation and relaxation in uniaxially stretched atactic, 1240
- , chain, labelled, cyclization dynamics of polymers: 9. The effect of polymer concentration on the slowest internal relaxation mode of a, 1286
- selective solvation of, in tetralin/cyclohexane mixtures, 1308
- , viscometric behaviour of, in tetralin/cyclohexane mixtures, 1429
- polymer-cosolvent systems: 5. Upper and lower critical solution temperatures of, in n-alkanes, 1445
- polymer-cosolvent systems: 6. Phase behaviour of, in binary mixed solvents of acetone with n-alkanes-examples of 'classic cosolvency', 1449
- polymer-cosolvent systems: 7. The application of free volume theory to the classical cosolvent systems formed from, in acetone and n-alkanes, 1453
- SRM 1478, analysis of ultracentrifugation interference patterns with image digitizer: application to molecular weight determination of, 1541
- co-operative diffusion of semi-dilute solutions, concentrated solutions and swollen networks for, in dibutylphthalate,
- phase separation temperature in the, poly(α-methyl styrene)methylcyclohexane system, 1631
- Poly(styrene-methyl methacrylate) copolymers, copolymer electron resists:,
- Polystyrene-poly(α-methyl styrene) blends, the effect of molecular weight and casting solvent on the miscibility of, 60
- Poly(sulphonate)s, adsorption and desorption of complex metal ions in polyviologen or its complexes with, by the control of a given potential, 846
- Poly(styrene sulphonic acid), membrane, transport of metal ions against their concentration gradient through waterinsoluble, 559

- Polytetrahydrofuran, formation of copolymer containing, and poly(dimethyl siloxane) blocks, 217
- Poly(tetramethylene terephthalate):, the  $\alpha$ and  $\beta$  structural forms of, a study by broad line nuclear magnetic resonance,
- Polywethane-poly(methyl methacrylate) interpenetrating polymer networks: 1. Early steps and kinetics of network formation; intersystem grafting, 65
- network, interstitial polymers based on a,: 1. Melting points and fractional crystallinities, 279
- networks, the structure and elasticity of,: 1. Model of poly(oxypropylene) triols and diisocyanate, 981
- microcellular elastomers: 1. Effect of chemical composition on tensile strength and elongation at break of poly(ethylene-butylene adipate) based systems, 1321
- Polyurethanes, segmented, structure and morphology of,: 1. Influence of incompatibility on hard-segment sequence length, 1327
- segmented, structure and morphology of,: 2. Influence of reactant incompatibility, 1333
- Polywethane poly(methyl methacrylate) interpenetrating poly networks: 2. Influence of compositional parameters on the synthesis: physical properties, 1415
- interpenetrating polymer networks, transition behaviour of, 1419
- Poly(vinyl alcohol), kinetics of ligand exchange reaction of Cu(II)-ammine complex with, in aqueous solution, 335

## Poly(ortho-vinylbenzophenone), 909 Polyvinylcarbazole films, electroluminescence

- from,: 1. Carbazole cations, 733 films, electroluminescence from,: 2. Polyvinylcarbazole films containing antimony pentachloride, 737
- films, electroluminescence from,: 3. Electroluminescent devices, 747
- films, electroluminescence from,: 4. Electroluminescence using higher work function cathodes, 753
- Poly(vinyl chloride), formation of anamalous structures in, and their influence on the thermal stability; 2. Branch structures and tertiary chlorine, 673
- -, formation of anamalous structures in, and their influence on the thermal stability: 3. Internal chloroallylic groups,
- --, the far infra-red spectrum of, 823
- , diffusion of additives and plasticizers in,: 4. A programmed temperature technique for the determination of the diffusion parameters of three dialkylphthalates, 831
- solid, effect of thermal stabilizers on the photo-oxidative degradation of, 1189
- a Fourier transform infra-red study of the phase behaviour of polymer blends. Ethylene-vinyl acetate copolymer blends with, and chlorinated polyethylene, 1410
- Poly(vinylidene chloride), FT-i.r. and thermal analysis studies of blends of poly(Ecaprolactone) with homo- and copolymers of, 37
- Poly(vinylidene fluoride), a statistical theory of directional isomerism in polymer chains and its applications of, 179
- -, form 1, phase transition at a temperature immediately below the melting point of,: A proposition for the ferroelectric Curie point, 199

- Polyvinylpyrrolidone, interaction of, with small consolutes in aqueous and non aqueous media, 91
- Poly(N-vinyl-2-pyrrolidone), the influence of polymerization conditions on the tacticity of, 339
- Polyviologen, adsorption and desorption of complex metal ions in, or its polyion complex with poly(sulphonate)s by the control of a given potential, 846
- poly(p-xylylene),  $\beta$ -form, structural analysis of starting from a high-resolution image,
- Pressure, effect of, on the melting and crystallization behaviour of isotactic polybutene-1, 141
- Properties, structure and aromatic-aliphatic copolyesters, 596
- , the structure and, of solid gelatin and the principles of their modification, 651
- of poly(ethylene terephthalate), the effect of physical ageing on the, 1245
- of the equimolar copolycarbonates of bisphenol A with bisphenol S and 1,4bis(hydroxymethyl)cyclohexane, 1313
- β-Propiolactones, α,α-disubstituted, anionic polymerization of, with cryptates as counterions, 578
- Pyrene excimer technique, applications of the, to the internal dynamics of poly(dimethyl siloxane) chains, cyclization dynamics of polymers, 319
- formation, intramolecular, the influence of polymer concentration on the internal motion - of a low molecular weight probe in solution, 473
- Quasi-electric light scattering data for flexible chains, interpretation of,: model dependence, 383
- Radiation, effect of high-energy, on the uniaxial tensile creep behaviour of ultrahigh molecular weight linear polyethylene, 160
- induced cationic polymerization of vinyl ethers in solution: 4. Polymerization of isopropyl vinyl ether in bulk and in various solvents, 513
- effects on poly(lactic acid), 827
- a study of the cationic copolymerization of ethyl and isopropyl vinyl ethers induced by, 1469
- Radius of gyration, specific heat and density of amorphous polymers, effect of vitrification pressure on, 1255
- Reaction, urea-formaldehyde, kinetics and mechanism of, 626
- Reactivity, intrinsic unequal, and average molecular weights in non-linear stepwise polymerization, 587
- Reactors, poly(ethylene terephthalate), simulation of cyclics and degradation product formation in, 449 Redox system, CE<sup>IV</sup>-thiourea,
- polymerization of N,N'-
- methylenebisacrylamide initiated by, 906 Regime III crystallization in melt-crystallized polymers: The variable cluster model of chain folding, 3
- Regression program, multiple, calculation of optimum multicomponent solvent compositions for polymers using a, 193
- Reinforced polymers, modification of the properties of some polyblends and, 359

- Relaxation, comparison between end-bond and internal-bond, of polystyrene in dilute solution: an investigation by timedependent fluorescence polarization, 205
- -, orientation and, in uniaxially stretched atactic polystyrene, 1240
- mode, slowest internal, of a labelled polystyrene chain, effect of polymer concentration on the, 1286
- Reptation models, entangled linear polymer chains in melts: n.m.r. and Rouse or,: stress relaxation, 1128
- Resins, p-hydroxystyrene, poly(p-tertbutoxycarbonyloxystyrene): a convenient precursor to, 995
- Rheology, melt, estimation of the, of polymer waste from melt flow index, 722
- Ring and chain molecules, shapes of, studies of cyclic and linear poly(dimethyl siloxanes): 11., 395
- Rouse, n.m.r. and reptation models of entangled linear polymer chains in melts; stress relaxation, 1128
- Rubber, crosslinked butyl(XL-50), dielectric behaviour and sulphur vulcanization of, 617
- vulcanizates, natural, thermo-oxidative ageing and its effect of the network structure and fracture mode of, 1042
- carboxylated nitrile, effect of curing systems on polymer filler interaction, technical properties and fracture mode of, 1055
- , crosslinked natural, experiments on the small-strain behaviour of: 1. Torsion, 1495
- --, crosslinked natural, experiments on the small-strain behaviour of, 2. Extension and compression, 1502
- elasticity:, experimental tests of entanglement models of,: 1. Uniaxial extension-compression, 1644
- extension-compression, 1644

  Rubbers, reduced van der Waals equation of state and critical properties of, 949
- properties of thin films of iostactic polypropylene blended with polyisobutylene and ethylene-propylenediene terpolymer, 1458
- Salt solutions, the diffusion of, into nylon-6, 1001
- Scattered light, particle size from optical anisotropy effects in, 991
- Scattering, X-ray, the determination of molecular orientation in uniaxially compressed PMMA by, 285
- -, single-chain, in heterogeneous block copolymers, 519
- Self-diffusion of poly(ethylene oxide) in aqueous dextran solutions measured using FT-pulsed field gradient n.m.r., 188
- coefficients, molecular weight and temperature dependence of, in polyethylene and polystyrene melts investigated using a modified n.m.r. fieldgradient technique, 964
- Sequence distributions, nuclear magnetic resonance studies on, in vinyl alcoholvinyl acetate copolymers, 507
- Shear rate, effect of, on the rate of polymerization of styrene, 443
- Silarylene siloxane polymers, exactly alternating: 6. Thermal stability and degradation behaviour, 761
- Silk fibre, molecular motion in the  $\beta$ -form crystal of, 820

- Small-angle neutron scattering of partially segregated polymer blends, 43
- measurements on polymers, multiple scattering in, 131
- study of the structure of a triblock copolymer of styrene and isoprene during extension, 275
- measurement of block copolymer interphase structure, 1089
- Smectic phase, of polyesters based on p,p'-bibenzoic acid, investigation of the, 1299
- Solvation, selective, of polystyrene in tetralin/cyclohexane mixtures, 1308
- Solvent compositions, calculation of optimum multicomponent, for polymers using a multiple regression program, 193
- Solvent extraction, molecular fractionation in melt-crystallized polyethylene: 2. Effect of, on the structure as studied by differential scanning calorimetry and gel permeation chromatography, 1532
- Solubility parameter, polymer, gas-liquid chromatography study of poly(ethylene oxide)-solvent interactions estimation of, 865
- Specific heat, radius of gyration, and density of amorphous polymers, effect of vitrification pressure on, 1255
- Specific volumes, apparent, of polymers in dilute solutions, 547
- Spin trapping of radicals produced by glow discharge on low-density polyethylene, 1581
- Stabilizers, bound synergistic, protection of styrene-butadiene copolymer film with, against ferric stearate-catalysed photooxidative degradation at elevated temperature, 229
- Statistical theory of directional isomerism in polymer chains and its applications of poly(vinylidene fluoride), 179
- Stereocomplex formation of PMMA in cosolvent mixtures, 903
- vibrational spectra and structure of stereoregular poly(methyl methacrylates) and the, 971
- Stereocomplexes in solutions of syndio- and isotactic poly(methyl methacrylate) mixtures: 1. Aggregation time and character of aggregated particles in different solvents, 713
- in solutions of syndio- and isotactic poly(methyl methacrylate) mixtures: 2.
   Mutual interaction constant of stereopolymers, 719
- -, lactic acid, configurational structures of, as determined by <sup>13</sup>C-[<sup>1</sup>H] n.m.r., 53
- Stereoregularity, crystallization behaviour of fractions of isotactic polypropylene with different degrees of, 693
- Stiffness, the conformational origin of flexibility and, in poly(olefin sulphones) demonstrated by means of dynamic <sup>13</sup>C n.m.r. measurements, 1571
- Strain behaviour, experiments on the small-, of crosslinked natural rubber: 1. Torsion,
- experiments on the small-, of crosslinked natural rubber: 2. Extension and Compression, 1502
- Structure-property relationships in elastomeric ionene, effect of poly(propylene oxide) segment size on,
- and properties of aromatic-aliphatic copolyesters, 596
- and properties of solid gelatin and the principles of their modification, 651

- of liquid crystalline aromatic copolyesters prepared from 4-hydroxybenzoic acid and 2-hydroxy-6-naphthoic acid, 937
- , of polymer solutions: scaling and modelling on an electronic computer, 1145
- and morphology of segmented polyurethanes: 1. Influence of incompatibility on hard-segment sequence length, 1327
- and morphology of segmented polyurethanes: 2. Influence of reactant incompatibility, 1333
- Structural order in alkali-degraded PAN as seen in studies of low-temperature thermal conductivity, 258
- study of the tensile drawing behaviour of poly(ethylene terephthalate), 1103
- analysis of β-form poly(p-xylylene) starting from a high-resolution image, 1155
- Styrene, effect of shear rate on the rate of polymerization of, 443
- Sub-glass transition, detection of, events in amorphous polymers using differential scanning calorimetry: 3. Further observations on polymers containing pendant cycloalkyl rings, 1439
- Submolecule model, description of n.m.r. properties associated with a, of strongly entangled polymer chains in a melt, 400
- Substitution effects and average molecular weights in non-linear stepwise polymerization, 591
- Sulphur vulcanization and dielectric behaviour of crosslinked butyl(XL-50) rubber, 617
- Synthesis of tetramethyl-psilphenylensiloxane/dimethylsiloxane triblock copolymer by employing living anionic polymerization, 457
- a novel approach to the, of high 1,4telechelic polybutadienes by an anionic route, 883
- , of block copolymer by the reaction of living poly(N-phenylmethacrylamide) radical with vinyl monomers, 1018
- recent developments in the application of functionalized polymers in organic, 1369
- Temperature dependence of distortion in poly(ethylene oxide) crystals, 135
- Tensile creep behaviour, uniaxial, effect of high-energy radiation on the, of ultrahigh molecular weight linear polyethylene, 160
- measurements, ultimate, of filled gelatin gels, 481
- yield stress of polycarbonate, effect of thermal history on the, in the  $\beta$  transition range, 921
- drawing, behaviour of poly(ethylene terephthalate), a structural study of the, 1103
- Tensor elements, <sup>13</sup>C n.m.r. chemical shielding, of solid poly(methyl methacrylate), 1425
- Tetralin/cyclohexane mixtures, selective solvation of polystyrene in, 1308
- viscometric behaviour of polystyrene in, 1429
- Theoretical prediction of domain sizes in IPN's and related materials, 307
- study, on the nature of the hydrogen bonds in an α-helical polymer and its model systems, 1639

- Thermal and mechanical properties of tetramethyl-psilphenylensiloxane/dimethylsiloxane block copolymer, 463
- Thermal conductivity, low-temperature, structural order in alkali-degraded PAN as seen in studies of, 258
- Thermal history, effect of, on the tensile yield stress of polycarbonate in the  $\beta$ transition range, 921
- Thermal stability, formation of anamalous structures in PVC and their influence on the,: 2. Branch structures and tertiary chlorine, 673
- formation of anamalous structures in PVC and their influence on the,: 3. Internal chloroallylic groups, 685
- and degradation behaviour of exactly alternating silarylene-siloxane polymers,
- Thermal stabilizers, effect of, on the photooxidative degradation of solid poly(vinyl chloride), 1189
- Thermal treatments, influence of, on the structure and stability of gelatin gels, 537
- Thermally degraded polyisobutylene, distribution of double bonds in, 428
- Thermally stimulated depolarization effect in thiourea-formaldehyde condensate, 1197
- Thermoanalytical measurements, the significance of, in the assessment of polymer flammability, 834
- Thermodynamic interpretation of the compatibility of chlorinated polyethylene with poly(methyl methacrylate), 263
- parameters, the relationship between the Grüneisen and other, and intermolecular forces in polymers, 314
- mechanism, growth rate versus temperature relations characteristic of environmental stress cracks in low density polyethylenes and the underlying,
- Thermotropic polymers, oriented, banded structures in, 155
- homopolyesters: 5. Investigation of the smectic phase of polyesters based on p,p'bibenzoic acid, 1299
- liquid crystalline polymers, measurement of molecular orientation in, 1513

- -, polyesteramides, transitions in linear, 1610
- Thin films, properties of, of isotactic polypropylene blended with polyisobutylene and ethylene-propylenediene terpolymer rubbers, 1458
- Thiourea-formaldehyde condensate, thermally stimulated depolarization effect in, 1197
- Tie molecules, importance of, in preventing polyethylene fracture under long-term loading conditions, 1647
- Torsion experiments on the small-strain behaviour of crosslinked natural rubber,
- Transfer agents, the spontaneous polymerization of methyl methacrylate: 6. Polymerization in solution: particpation of transfer agents in the initiation reaction, 1473
- Transition behaviour of polyurethanepoly(methyl methacrylate) interpenetrating polymer networks, 1419
- Transition metal ions, complexation of poly-2,5-dimethyl-4-vinylethynilpyrperidol-4 hydrochloride with, in solution, 607
- Transitions in linear thermotropic polyesteramides, 1610
- Transport of metal ions against their concentration gradient through waterinsoluble poly(styrene sulphonic acid) membrane, 559
- N-Trifluoroacetylation, molecular weight determinations of polyamides by, 72
- Trioxane, generation of orthorhombic polyoxymethylene in a cationic polymerization system of, 915
- Ultracentrifugation, analysis of, interference patterns with image digitizer: Application to molecular weight determination of SRM 1478 polystyrene, 1541
- Uniaxial extension, mechanical behaviour of isotactic polypropylene subjected to various strain histories in, 351

- Urea, molecular association complex of, with polyethylene: 3. Structural studies of the complex, 149
- Valonia ventricosa, directionality of the fibre c-axis of cellulose crystallites in microfibrils of, 1547
- van der Waals, equation of state, reduced, and critical properties of rubbers, 949
- Vibrational spectra and structure of stereoregular poly(methyl methacrylates) and of the stereocomplex, 971
- Vinyl monomers, organotin polymers: 6. Copolymerization parameters for tri-nbutylin maleate, acrylate and methacrylate with some, 1635
- Viscometric study of the interaction of polybutadienyllithium with N,N,N',N'tetramethylethylenediamine in benzene,
- behaviour of polystyrene in tetralin/cyclohexane mixtures, 1429 Viscosity of ionomer gels, 77
- Vitrification pressure, effect of, on radius of gyration, specific heat and density of amorphous polymers, 1255
- Workhardening rate, on the, of glassy polymers: 1. Application to the physical ageing of atactic PMMA, 476
- X-ray diffraction studies of some halatopolymers, 271
- scattering, the determination of molecular orientation in uniaxially compressed PMMA by, 285
- structural parameters of the three phase model in cellulose I, anisotropy of, 525
- diffraction studies of iodine-doped polyacetylene, 1558
- Zirconium tetrabenzyl, alumina-supported, the morphology of polyethylenes produced by, 889