

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 3
1994

CONTENTS

| | | |
|---|------------|--|
| K. V. R. Chary, Vinit K. Rastogi, Girjesh Govil, H. Todd Miles | 241 | Estimation of $^{31}\text{P}-^1\text{H}$ and $^1\text{H}-^1\text{H}$ Vicinal Coupling Constants along the DNA Backbone by 2D HELCO Measurements |
| Li Guo, John D. Bradshaw, Claire A. Tessier, Wiley J. Youngs | 243 | Synthesis and Crystal Structure of 1,2:7,8:13,14:19,20-tetrabenzocyclotetracon-1,7,13,19-tetraene-3,5,9,11,15,17,21,23-octayne |
| William Henderson, Helen H. Petach, Kwabena Sarfo | 245 | A Novel Polymeric Phosphine Oxide-derived Support for Enzyme Immobilisation |
| Hiroaki Taguchi, Toshio Yokoi, Fumiyo Kasuya, Yasuhiro Nishiyama, Miyoshi Fukui, Yoshio Okada | 247 | Unexpected Reaction of Dipeptidyl Chloromethyl Ketone during Acid Hydrolysis |
| Man Shing Wong, Jean-François Nicoud | 249 | Synthesis of Novel Non-centrosymmetric Crystalline Materials for Quadratic Non-linear Optics |
| Raghao S. Mali, Paramjeet Kaur Sandhu, Anita Manekar-Tilve | 251 | Efficient Synthesis of 6-Prenylcoumarins; Total Syntheses of Suberosin, Toddaculin, <i>O</i> -Methylapigravín (<i>O</i> -Methylbrosiperin) and <i>O</i> -Methylbalsamiferone |
| Mario Bressan, Luca Forti, Antonino Morvillo | 253 | Effective Ruthenium-catalysed Oxidation of Chlorinated Olefins by Monopersulfate in Aqueous Medium |
| Hiroshi Moriwaki, Takumi Oshima, Toshikazu Nagai | 255 | Photoinduced Reductive Cleavage of Diarylcyclopropanes fused with Bromonaphthoquinone in the Presence of Amines |
| Angela M. Bernard, Pier P. Piras | 257 | [1,3]-Shift of Arylthio Groups in 2-Cyclopropylidenealkyl-1-arylthio Derivatives |
| Chin-Ti Chen, Seth R. Marder, Lap-Tak Cheng | 259 | Molecular First Hyperpolarizabilities of a New Class of Asymmetric Squaraine Dyes |
| Valentin P. Valtchev | 261 | Influence of Different Organic Bases on the Crystallization of Titanium Silicate ETS-10 |
| Tomoyuki Ohba, Hitoshi Ishida, Tomohiro Yamaguchi, Tomohiro Horiuchi, Katsutoshi Ohkubo | 263 | Carbon Dioxide-promoted Electrochemical Reduction of Aromatic Nitro Compounds to Azoxy Compounds in Acetonitrile |
| Helena Grennberg, Vanessa Simon, Jan-E. Bäckvall | 265 | Evidence for a (π -Allyl)palladium Intermediate in the Quinone-based Palladium-catalysed Allylic Acetoxylation |
| Richard E. Douthwaite, Adrian R. Brough, Malcolm L. H. Green | 267 | Synthesis and Characterisation of $\text{NaC}_{60} \cdot 5\text{thf}$ |
| Alan L. Balch, Marinella Mazzanti, Marilyn M. Olmstead | 269 | Preparation of a Cobalt Analogue of Verdoheme by Coupled Oxidation of Cobalt(II) Octaethylporphyrin |
| Kin Shing Chan, Xiang Zhou, Bao-sheng Luo, Thomas C. W. Mak | 271 | Synthesis of β -Aryl Substituted Porphyrins by Palladium-catalysed Cross-coupling Reactions |
| S. J. Kulkarni, R. Ramachandra Rao, M. Subrahmanyam, A. V. Rama Rao | 273 | Ammoxidation of Ethanol to Acetonitrile over Molecular Sieves |
| Subrata Roy, Sabyasachi Sarkar | 275 | NO_2 Adducts of C_{60} : Synthesis of Polynitro-Polyhydroxy Fullerenes |
| Toshiro Imai, Shinya Nishida | 277 | A New Type of Catalysis by Copper(I) Salts in the Barbier-type Aldehyde Allylation with Tin(II) Chloride. Short Syntheses of (\pm)-Lavandulol and its γ, δ -Dihydro Derivative |
| Sentaro Okamoto, Naoya Ono, Kousuke Tani, Yukio Yoshida, Fumie Sato | 279 | Conversion of Allyl Alk-2-ynoates to Alk-2-ynoic Acids Using Morpholine and Palladium(0)-Bis(diphenylphosphino)alkane Catalyst; Synthesis of 2,2,3,3-Tetrahydro PGE ₁ |
| Nobuya Katagiri, Ayumu Kurimoto, Akemi Yamada, Hiroshi Sato, Takao Katsuura, Koji Takagi, Chikara Kaneko | 281 | A Novel Synthesis of Cyclic Nitrones via a Nitrosoketene Intermediate |
| John S. Carey, Eric J. Thomas | 283 | Effective 1,7-Asymmetric Induction in Reactions between 6-Hydroxyallylstannanes and Aldehydes promoted by Tin(IV) Bromide |
| Steven J. Stanway, Eric J. Thomas | 285 | 1,5-Induction in Reactions between 4-Aminoallylstannanes and Aldehydes promoted by Lewis Acids |

| | | |
|---|------------|--|
| Shunichi Fukuzumi, Souta Noura | 287 | Regioselective Reduction of 1-Methylquinolinium Ions by Tributyltin Hydride and Tris(trimethylsilyl)silane <i>via</i> Photoinduced Electron Transfer |
| Feng Hong, Xiaoqing Tang, Changming Hu | 289 | Zinc-promoted Barbier-type Reaction of 2-Bromo-3,3,3-trifluoropropene with Aldehydes |
| Masato Tazaki, Hidetaka Tanabe, Shizuo Nagahama, Makoto Takagi | 291 | 4,4-Disubstituted 1,2-Dithiolanes as Simple Models for Enzyme-bound Lipoic Acid |
| Eun Lee, Cheol Min Park | 293 | C-Furanoside Synthesis <i>via</i> Radical Cyclisation of β -Alkoxyacrylates |
| K. C. Nicolaou, P. G. Nantermet, H. Ueno, R. K. Guy | 295 | Novel Chemistry of Taxol. Retrosynthetic and Synthetic Studies |
| Hiroshi Ikeda, Tomonori Minegishi, Tsutomu Miyashi | 297 | Striking Contrast between Photoinduced and Non-photoinduced Electron-transfer Reactions of 1,4-Diphenyl-2,3-diazabicyclo[2.2.2]oct-2-ene |
| Joan Fuller, Richard T. Carlin, Hugh C. de Long, Dustin Haworth | 299 | Structure of 1-Ethyl-3-methylimidazolium Hexafluorophosphate: Model for Room Temperature Molten Salts |
| Eloisa Lopez-Calle, Wolfgang Eberbach | 301 | Photochemical Rearrangement of 2,3-Dihydroisoxazoles. Formation of Stable Azomethine Ylides <i>via</i> Acyl Aziridines as Intermediates |
| Jean-Pierre Dulcère, Nathalie Baret, Jean Rodriguez | 303 | A New Synthetic Route to 2,5-Dihydrofurans |
| Michele Maggini, Gianfranco Scorrano, Alberto Bianco, Claudio Toniolo, Rint P. Sijbesma, Fred Wudl, Maurizio Prato | 305 | Addition Reactions of C ₆₀ Leading to Fulleroprolines |
| Michel Fournier, Ahmed Aouissi, Claude Rocchiccioli-Deltcheff | 307 | Evidence of β -MoO ₃ Formation during Thermal Treatment of Silica-supported 12-Molybdophosphoric Acid Catalysts |
| Warren E. Piers | 309 | Evidence for Concerted Extrusion of TeR ₂ From Permethylscandocene Tellurolates |
| Toshifumi Hirukawa, Takaaki Suzuki, Masaharu Tanaka, Tadahiro Kato | 311 | First Synthesis of the Trinervitane System from Secotrinervitane by Transannular Ring Construction |
| Derek R. Boyd, John Blacker, Brige Byrne, Howard Dalton, Mark V. Hand, Sandra C. Kelly, Rory A. More O'Ferrall, S. Nagaraja Rao, Narain D. Sharma, G. N. Sheldrake | 313 | Acid-catalysed Aromatisation of Benzene <i>cis</i> -1,2-dihydrodiols: a Carbocation Transition State poorly stabilised by Resonance |
| Andreja Bakac, James H. Espenson, James A. Janni | 315 | Oxidative Homolysis of the Superoxopentaaquachromium(III) Ion |
| Kenso Soai, Takefumi Suzuki, Toshiyuki Shono | 317 | Remarkable Effect of Alkylbenzenes as Solvents in Enantioselective Alkylation of N-Diphenylphosphinylimines with Diethylzinc using Polystyrene Supported Ephedrine |
| Kazuhisa Hiratani, Hideki Sugihara, Kazuyuki Kasuga, Kyoko Fujiwara, Takashi Hayashita, Richard A. Bartsch | 319 | An Acyclic Polyether Dicarboxylic Acid Ionophore with High Selectivity for pH-driven Uphill Transport of Lead(II) Ion |
| José Barluenga, Miguel Tomás, Alfredo Ballesteros, Javier Santamaría, Fernando López-Ortiz | 321 | The First [4 + 3] Annulation of Fischer Carbene Complexes with Azadienes: Facile Synthesis of Azepines |
| Hideaki Uchida, Yasukazu Nakakita, Nobuyasu Enoki, Naoki Abe, Takehiko Nakamura, Masanobu Munekata | 323 | Chrymutasins: a New Type of Aglycone Related to Chartreusin; Novel Antitumour Antibiotics from a Mutant of <i>Streptomyces chartreusis</i> |
| Stephen J. Green, David R. Rosseinsky, Michael J. Toohey | 325 | A New Liquid Electrolyte allowing Sustained Macrocathode Electrochemistry down to 99.5 K |
| Yeong-Soon Gal | 327 | A Novel Conjugated Polyelectrolyte: a Facile Synthetic Method for Poly-(propynyltriphenylphosphonium bromide) using Transition Metal Catalysts |
| Paul A. Wallace, David E. Minnikin, Malin Ridell | 329 | Synthesis and Structure of 2,3-Di-O-acyl- α , α -trehalose Lipid Antigens from <i>Mycobacterium fortuitum</i> |
| Yang Yu, Masatomi Ohno, Shoji Eguchi | 331 | Remarkable Dipolarophilicity of Nitrile Function uncovered in the 1,3-Dipolar Cycloaddition Reaction of Homoadamantane-incorporated Nitrones. A Direct and Facile Route to Δ^4 -1,2,4-Oxadiazoline (2,3-Dihydro-1,2,4-oxadiazole) Derivatives |
| Christophe Darcel, Christian Bruneau, Pierre H. Dixneuf, Günter Neef | 333 | Concomitant Catalytic Transformations of Geminal Ethynyl and Hydroxy Groups of Steroids into Acetyl and Ester Functions with Retention of Configuration by [Ru(μ -O ₂ CH)(CO) ₂ (PPh ₃) ₂] |
| Andreas Skiebe, Andreas Hirsch | 335 | A Facile Method for the Synthesis of Amino Acid and Amido Derivatives of C ₆₀ |
| Michèle Soleihavoup, Antoine Baceiredo, Françoise Dahan, Guy Bertrand | 337 | Nucleophilic Additions to a Diphosphirenium Salt: Ring Opening and Ring Expansion Reactions |
| Masahiko Matsukata, Norikazu Nishiyama, Korekazu Ueyama | 339 | Zeolitic Membrane Synthesized on a Porous Alumina Support |
| Masahiko Hayashi, Tetsuya Inoue, Nobuki Oguni | 341 | Novel Enantioselective Reaction of Diketene with Aldehydes Promoted by Chiral Schiff Base-Titanium Alkoxide Complex |
| R. Eric Banks, Nicholas J. Lawrence, Allan L. Popplewell | 343 | Efficient Electrophilic Fluorination of β -Dicarbonyl Compounds with the Selectfluor Reagent F-TEDA-BF ₄ {1-Chloromethyl-4-fluoro-1,4-diazo-1,2,2,2-octane bis(tetrafluoroborate)} |
| Klaus Kwetkat, William Kitching | 345 | Characterization of Alkyl- and Aryl-mercuric Hydrides by NMR Spectroscopy |
| Jun Fujiwara, Masami Watanabe, Tadashi Sato | 349 | Diversity in the Lewis Acid-induced Reaction of Aldehydes with γ -Substituted Allylstannanes Depending upon the Substituent |

| | | |
|---|-----|--|
| Lisa Williams, Michael N. Paddon-Row | 353 | Electrostatic and Steric Control of π -Facial Stereoselectivity in Nucleophilic Additions of LiH and MeLi to <i>endo</i> -5,6-Disubstituted Norbornen-7-ones: an <i>ab initio</i> MO Study |
| Rolf A. T. M. van Benthem, Henk Hiemstra, Jasper J. Michels, W. Nico Speckamp | 357 | Palladium(II)-catalysed Oxidation of Allylic Amines with Molecular Oxygen |
| Christopher J. Warren, Douglas M. Ho, Robert C. Haushalter, Andrew B. Bocarsly | 361 | Electrochemical Synthesis of a New Gallium Telluride containing One-dimensional Chains: Structure Of $[(C_6H_5)_4P]GaTe_2(en)_2$ (<i>en</i> = ethane-1,2-diamine) |

Chemical Communications – 1994

From the beginning of 1994, each communication in *Chemical Communications* will start on a fresh right-hand page, and will be limited to two pages in length. The vast majority of communications already fall within this two-page limit. Authors will be asked to shorten communications that are longer than two pages, and should bear in mind our requirements for brevity in drafting their manuscript.

In particular:

- Extensive historical introduction and associated references should not be included; all that is needed is brief information to put the work in context.
- Duplication of results in the text and Tables and/or Figures must be avoided.
- Tables and Figures should be included only if their content is essential; more extensive tabulation of data and illustration of results should be reserved for the full paper.
- Supplementary information on compound characterisation is useful for the referees.

Only in very exceptional circumstances, requiring special justification from the author, will communications be allowed to extend to four printed pages.

AUTHOR INDEX

- Abe, Naoki, 323
 Aouissi, Ahmed, 307
 Bacciredo, Antoine, 337
 Bäckvall, Jan-E., 265
 Bakac, Andreja, 315
 Balch, Alan L., 269
 Ballesteros, Alfredo, 321
 Banks, R. Eric, 343
 Baret, Nathalie, 303
 Barluenga, José, 321
 Bartsch, Richard A., 319
 Bernard, Angela M., 257
 Bertrand, Guy, 337
 Bianco, Alberto, 305
 Blacker, John, 313
 Bocarsly, Andrew B., 361
 Boyd, Derek R., 313
 Bradshaw, John D., 243
 Bressan, Mario, 253
 Brough, Adrian R., 267
 Bruneau, Christian, 333
 Byrne, Briegie, 313
 Carey, John S., 283
 Carlin, Richard T., 299
 Chan, Kin Shing, 271
 Chary, K. V. R., 241
 Chen, Chin-Ti, 259
 Cheng, Lap-Tak, 259
 Dahan, Françoise, 337
 Dalton, Howard, 313
 Darcel, Christophe, 333
 De Long, Hugh C., 299
 Dixneuf, Pierre H., 333
 Douthwaite, Richard E., 267
 Dulcère, Jean-Pierre, 303
 Eberbach, Wolfgang, 301
 Eguchi, Shoji, 331
 Enoki, Nobuyasu, 323
 Espenson, James H., 315
 Forti, Luca, 253
 Fournier, Michel, 307
 Fujiwara, Jun, 349
 Fujiwara, Kyoko, 319
 Fukui, Miyoshi, 247
 Fukuzumi, Shunichi, 287
 Fuller, Joan, 299
 Gal, Yeong-Soon, 327
 Govil, Girjesh, 241
 Green, Malcolm L. H., 267
 Green, Stephen J., 325
 Grennberg, Helena, 265
 Guo, Li, 243
 Guy, R. K., 295
 Hand, Mark V., 313
 Haushalter, Robert C., 361
 Haworth, Dustin, 299
 Hayashi, Masahiko, 341
 Hayashita, Takashi, 319
 Henderson, William, 245
 Hiemstra, Henk, 357
 Hiratani, Kazuhisa, 319
 Hirsch, Andreas, 335
 Hirukawa, Toshifumi, 311
 Ho, Douglas M., 361
 Hong, Feng, 289
 Horiuchi, Tomohiro, 263
 Hu, Changming, 289
 Ikeda, Hiroshi, 297
 Imai, Toshiro, 277
 Inoue, Tetsuya, 341
 Ishida, Hitoshi, 263
 Janni, James A., 315
 Kaneko, Chikara, 281
 Kasuga, Kazuyuki, 319
 Kasuya, Fumiyo, 247
 Katagiri, Nobuya, 281
 Kato, Tadahiro, 311
 Katsuhara, Takao, 281
 Kelly, Sandra C., 313
 Kitching, William, 345
 Kulkarni, S. J., 273
 Kurimoto, Ayumu, 281
 Kwetkat, Klaus, 345
 Lawrence, Nicholas J., 343
 Lee, Eun, 293
 Lopez-Calle, Eloisa, 301
 López-Ortíz, Fernando, 321
 Luo, Bao-sheng, 271
 Maggini, Michele, 305
 Mak, Thomas C. W., 271
 Mali, Raghao S., 251
 Manekar-Tilve, Anita, 251
 Marder, Seth R., 259
 Matsukata, Masahiko, 339
 Mazzanti, Marinella, 269
 Michels, Jasper J., 357
 Miles, H. Todd, 241
 Minegishi, Tomonori, 297
 Minnikin, David E., 329
 Miyashi, Tsutomu, 297
 More O'Ferrall, Rory A., 313
 Moriaki, Hiroshi, 255
 Morville, Antonino, 253
 Munekata, Masanobu, 323
 Nagahama, Shizuo, 291
 Nagai, Toshikazu, 255
 Nakakita, Yasukazu, 323
 Nakamura, Takehiko, 323
 Nantermet, P. G., 295
 Neef, Günter, 333
 Nicolaou, K. C., 295
 Nicoud, Jean-François, 249
 Nishida, Shinya, 277
 Nishiyama, Norikazu, 339
 Nishiyama, Yasuhiro, 247
 Noura, Souta, 287
 Oguni, Nobuki, 341
 Ohba, Tomoyuki, 263
 Ohkubo, Katsutoshi, 263
 Ohno, Masatomi, 331
 Okada, Yoshio, 247
 Okamoto, Sentaro, 279
 Olmstead, Marilyn M., 269
 Ono, Naoya, 279
 Oshima, Takumi, 255
 Paddon-Row, Michael N., 353
 Park, Cheol Min, 293
 Petach, Helen H., 245
 Piers, Warren E., 309
 Piras, Pier P., 257
 Popplewell, Allan L., 343
 Prato, Maurizio, 305
 Rama Rao, A. V., 273
 Rao, R. Ramachandra, 273
 Rao, S. Nagaraja, 313
 Rastogi, Vinit K., 241
 Ridell, Malin, 329
 Rocchiccioli-Deltcheff, Claude, 307
 Rodriguez, Jean, 303
 Rosseinsky, David R., 325
 Roy, Subrata, 275
 Sandhu, Paramjeet Kaur, 251
 Santamaría, Javier, 321
 Sarfo, Kwabena, 245
 Sarkar, Sabyasachi, 275
 Sato, Fumie, 279
 Sato, Hiroshi, 281
 Sato, Tadashi, 349
 Scorrano, Gianfranco, 305
 Sharma, Narain D., 313
 Sheldrake, G. N., 313
 Shono, Toshiyuki, 317
 Sijbesma, Rint P., 305
 Simon, Vanessa, 265
 Skiebe, Andreas, 335
 Soai, Kenso, 317
 Soleihavoup, Michèle, 337
 Speckamp, W. Nico, 357
 Stanway, Steven J., 285
 Subrahmanyam, M., 273
 Sugihara, Hideki, 319
 Suzuki, Takaaki, 311
 Suzuki, Takefumi, 317
 Taguchi, Hiroaki, 247
 Takagi, Koji, 281
 Takagi, Makoto, 291
 Tanabe, Hidetaka, 291
 Tanaka, Masaharu, 311
 Tang, Xiaoqing, 289
 Tani, Kousuke, 279
 Tazaki, Masato, 291
 Tessier, Claire A., 243
 Thomas, Eric J., 283, 285
 Tomás, Miguel, 321
 Toniolo, Claudio, 305
 Toohey, Michael J., 325
 Uchida, Hideaki, 323
 Ueno, H., 295
 Ueyama, Korekazu, 339
 Valtchev, Valentin P., 261
 van Benthem, Rolf A. T. M., 357
 Wallace, Paul A., 329
 Warren, Christopher J., 361
 Watanabe, Masami, 349
 Williams, Lisa, 353
 Wong, Man Shing, 249
 Wudl, Fred, 305
 Yamada, Akemi, 281
 Yamaguchi, Tomohiro, 263
 Yokoi, Toshio, 247
 Yoshida, Yukio, 279
 Youngs, Wiley J., 243
 Yu, Yang, 331
 Zhou, Xiang, 271