JCCCAT (18) 1829-1929 (1995)

JOURNAL OF THE CHEMICAL SOCIETY

Chemical Communications

Number 18 1995

CONTENTS

1829 The First Monorganolead(II) Derivative, [{PbR(μ-Cl)}₂] where R = C(SiMe₂Ph)₃

$$RLi + PbCl2$$

$$R = C(SiMe2Ph)3$$

Colin Eaborn, Keith Izod, Peter B. Hitchcock, Sebnem E. Sözerli, J. David Smith

1831 Formation of Singlet Oxygen in the Deoxygenation of Heteroarene N-Oxides by Dimethyldioxirane

Waldemar Adam, Karlis Briviba, Frank Duschek, Dieter Golsch, Wolfgang Kiefer, Helmut Sies

1833 Pre-reactive Intermediates in Mixtures of Hydrocarbons with Chlorine Monofluoride: Characterisation of Ethyne."CIF and Ethene."CIF by Rotational Spectroscopy

H. I. Bloemink, K. Hinds, A. C. Legon, J. H. Holloway

1835 Aza-[2,3]-Wittig Sigmatropic Rearrangement of Crotyl Amines

James C. Anderson, D. Craig Siddons, Stephen C. Smith, Martin E. Swarbrick

i

1837 Adiabatic Two-way Isomerization of an Arylethene: an Observation of Extremely High Energy Barrier for Excited State Z-E Isomerization

Tatsuo Arai, Osamu Takahashi

1839 Heteroleptic Metallacyclic Potassium Organodiamido Zincate Complex. Synthesis and Structure of Polymeric{[K(thf)][MeZn(Bu^tNCH=CHNBu^t)]}_n

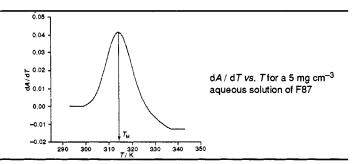
Evelien Rijnberg, Jaap Boersma, Johann T. B. H. Jastrzebski, Miles T. Lakin, Anthony L. Spek, Gerard van Koten

1841 Fullerene Spin Label. Synthesis and Characterization of the [60]Fullerene-substituted TEMPO Radical

Takayuki Ishida, Koji Shinozuka, Masayuki Kubota, Mamoru Ohashi, Takashi Nogami

1843 Diode-array UV Spectrometric Evidence for a Concentration Dependent Phase Transition in Dilute Aqueous Solutions of Pluronic F87 (Poloxamer 237)

Simon Gaisford, Anthony E. Beezer, John C. Mitchell, Watson Loh, Jill K. Finnie, Stuart J. Williams



1845 New Chiral β-Phosphinocarboxylic Acids and their Application in Palladium-catalysed Asymmetric Allylic Alkylations

Guido Knühl, Peter Sennhenn, Günter Helmchen

Dialkylation of α-Diketone Ketals with 1,8-Bis(trimethylsilyl)octa-2,6-diene

$$\frac{\text{TiCl}_4}{\text{CH}_2\text{Cl}_2} = \frac{\text{Ne}_3 \text{SiMe}_3}{\text{R}} + \frac{\text{O}_4 \text{O}_2}{\text{R}}$$

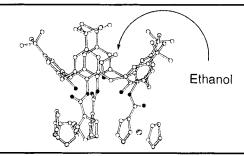
Hélène Pellissier, Robert Faure, Maurice Santelli

1849 Chirality Inversion in HZSM-5 and Nafion-H Solid Acid-catalysed Synthesis of Ethers from Alcohols via Surface $S_N 2$ Reaction

Qun Sun, Richard G. Herman, Kamil Klier

1851 Synthesis and X-Ray Crystal Structure of a New Redox-active Calix[5]arene Containing a Totally Included Ethanol Molecule

Paul D. Beer, Zheng Chen, Michael G. B. Drew, Philip A. Gale



1853 An Unexpected Reaction Between $B(C_6F_5)_3$ and $[Fe(\eta^5-C_5H_5)(CO)_2Me]$ Gives $\{[Fe-\sigma-C_6F_4(2-C(O)Me)](\eta^5-C_5H_5)(CO)\}$

Malcolm L. H. Green, Jane Haggitt, Christian P. Mehnert

1855 Deamination of *N,O*-Dialkylhydroxylamines *via N*-Nitroso-*N,O*-dialkylhydroxylamines: a New Reaction

H. Maskill, Iain D. Menneer, David I. Smith

1857 Facile Syntheses of gem-Difluoroalkenes from Chlorodifluoromethylketones

Jean-Pierre Bégué, Danièle Bonnet-Delpon, Jonathan M. Percy, Michael H. Rock, Robin D. Wilkes

1859 Stereoselective Reduction of 4-tert-Butylcyclohexanone to cis-4-tert-Butylcyclohexanol catalysed by Zeolite BEA

Edward J. Creyghton, Soesiela D. Ganeshie, Roger S. Downing, Herman van Bekkum

1861 Ferromagnetic Spin Interaction in a Crystalline Molecular Complex Formed by Inter-heteromolecular Hydrogen Bonding: a 1:1 Complex of Phenyl Nitronyl Nitroxide Radical and Phenylboronic Acid

Takeyuki Akita, Yasuhiro Mazaki, Keiji Kobayashi

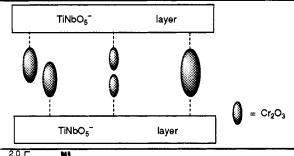
1863 Nickel-catalysed Substitution Reactions of Allylic Compounds with Soft Nucleophiles: an Efficient Alternative to Palladium Catalysis

AcO + HNEt₂
$$\frac{\text{Ni(dppb)}_2}{[\text{NBu}_a][\text{PF}_6]}$$
 Et₂N

Hervé Bricout, Jean-François Carpentier, André Mortreux

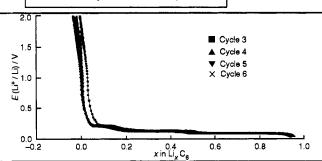
1865 Preparation of Porous Chromia-pillared Titanoniobate

Qijie Yan, Wenhua Hou, Yashao Chen



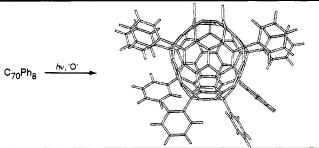
1867 Reversible Electrochemical Insertion of Lithium Ions into Graphite in LiClO₄-Propylene Carbonate Electrolyte

D. Billaud, A. Naji, P. Willmann



1869 Holey Fullerenes! A bis-Lactone Derivative of [70]Fullerene with an Eleven-atom Orifice

Paul R. Birkett, Anthony G. Avent, Adam D. Darwish, Harold W. Kroto, Roger Taylor, David R. M. Walton

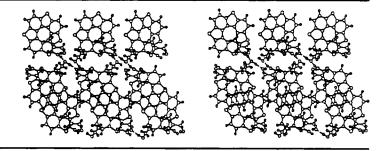


1871 The First Chelating Phosphorus-Nitrogen Dioxo Ligand: Complexation of an MoO(O₂)₂ Fragment

Werner R. Thiel, Thomas Priermeier, Tassilo Bog

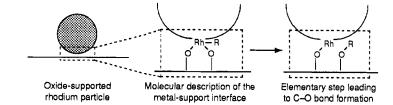
1873 Complexation with Helical Molecules: Helical Crystal Structure of Bis(hydroxymethyl)[7]thiaheterohelicene Ethanol Clathrate

Kazuhiko Tanaka, Yuka Shogase, Hideji Osuga, Hitomi Suzuki, Waro Nakanishi, Kaoru Nakamura, Yasushi Kawai



1875 Supramolecular Approach to Metal-Support Interactions: Formation and Decarbonylation of Allyl Alcohol by an Oxide-supported (σ-Allyl)rhodium(m) Complex

Susannah L. Scott, Craig Crippen, Catherine C. Santini, Jean-Marie Basset



1877 Improved Tumour Targeting with Recombinant Antibody-Macrocycle Conjugates

Timothy J. Norman, David Parker, Louise Royle, Alice Harrison, Pari Antoniw, David J. King

HOUND AND THE OWNER OF THE OWNER OF THE OWNER OW

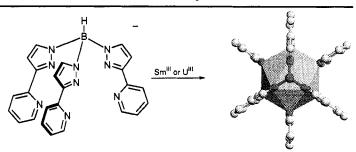
1879 Towards Selective DNA Targeting: Synthesis of an Antibody–Macrocycle–Intercalator Conjugate

Timothy J. Norman, David Parker, Fiona C. Smith, David J. King

X = PMeO₂H R = O = N O S - Fab

1881 Complexes of the Podand Ligand
Tris[3-(2-pyridyl)-pyrazol-1-yl]borate with
Lanthanoids and Actinoids: Rare Examples of
Icosahedral N₁₂ Coordination

Angelo J. Amoroso, John C. Jeffery, Peter L. Jones, Jon A. McCleverty, Leigh Rees, Arnold L. Rheingold, Yimin Sun, Josef Takats, Swiatoslaw Trofimenko, Michael D. Ward, Glenn P. A. Yap



1883 Correlations between Molecular Motion in the Solid State and Liquid-crystalline Phase Transitions for Two Hydrogen-bonded Carboxylic Acid-Pyridyl Complexes

$$C_5H_{11}$$
 CO_2H CO_2H

Melinda J. Duer, Lynn F. Gladden, Anselm C. Griffin, Chetan P. Jariwala, E. Clare Stourton

1885 MRI Contrast Agents: Macrocyclic Lanthanide(III) Complexes with Improved Relaxation Efficiency

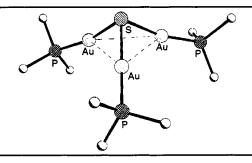
Silvio Aime, Mauro Botta, Simonetta Geninatti Crich, Giovanni B. Giovenzana, Giancarlo Jommi, Roberto Pagliarin, Massimo Sisti

1887 Syn and Anti Cycloaddition of Singlet Oxygen to Bisdialine

Giovanna Delogu, Davide Fabbri, Fabrizio Fabris, Federico Sbrogiò, Giovanni Valle, Ottorino De Lucchi

1889 Calculated Structures of SAu₃⁺ and S(AuPH₃)₃⁺

Pekka Pyykkö, Klaus Angermaier, Bernd Assmann, Hubert Schmidbaur



1891 Hydrofluorination of Unsaturated Compounds with Solid Potassium Hydrogen Fluoride in the Presence of Silicon Tetrafluoride at Room Temperature

Masanori Tamura, Motonari Shibakami, Shigeru Kurosawa, Takashi Arimura, Akira Sekiya

$$R^1$$
 R^3
 R^4
 R^4
 R^4
 R^5
 R^4
 R^5
 R^4
 R^5
 R^6
 R^6
 R^6
 R^6

1893 An Unexpected Palladium-catalysed Cyclisation on Carbohydrate Templates

Jean-Flaubert Nguefack, Véronique Bolitt, Denis Sinou

1895 Direct Allylation of Aromatic Compounds with Allylic Chloride using the Supported Reagents System ZnCl₂/SiO₂-K₂CO₃/Al₂O₃

Mitsuo Kodomari, Satoru Nawa, Tadahiro Miyoshi

1897 Theoretical Approach and First Examples of N-Acyl-Thioformamides as Dienophiles in the Diels-Alder Reaction

H N Me + C TICI₄

CH₂CI₂
0-20°C

Me N

Roger Arnaud, Pierre Y. Chavant, Karine Molvinger, Yannick Vallée

1899 Abnormal Reaction of an Aryl Azide confined in a Calix[6]arene Skeleton

Norihiro Tokitoh, Toshiyuki Saiki, Renji Okazaki

1901 Gas-phase Generation and Spectroscopy of the Unstable NCCNO Molecule

Tibor Pasinszki, Nicholas P. C. Westwood

1903 Palladium catalysed Cyclisation-Amination of Allenes-Effect of Base on Regioselectivity of Formation of Allylic Amines

Ronald Grigg, Visuvanathar Sridharan, Long-He Xu

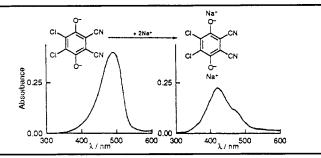
1905 Associative Substitution Mechanisms of Clusters: the Relationship between Sites of Nucleophilic Attack and Leaving Group Dissociation

1907 A Novel Tetranuclear Copper(II) Complex with Three Different Types of Azide, exhibiting Weak Antiferromagnetic Exchange

Santokh S. Tandon, Laurence K. Thompson, David O. Miller

1909 Direct Observation of Ion Pair Formation between 2,3-Dichloro-5,6-dicyanobenzoquinone Dianion and Sodium Ion

Munetaka Oyama, Atsushi Takei, Satoshi Okazaki



1911 An Investigation of the Hydrogen Bonding in Liquid-crystal Systems using Variable-temperature Electronic Spectroscopy

Daniel J. Price, Tim Richardson, Duncan W. Bruce

1913 Magnetic Exchange Coupling in a Nearly Linear Iron(III)Nickel(II)Nickel(II)Iron(III) Complex

Carsten Krebs, Manuela Winter, Thomas Weyhermüller, Eckhard Bill, Karl Wieghardt, Phalguni Chaudhuri

1917 Metallosilanediols of Molybdenum and Tungsten. Synthesis and Transformation to Functionalized Metallotrisiloxanes. Hydrogen-bonded Structure of [(C₅Me₅)(OC)₂(Me₃P)Mo-SiMe(OH)₂]

Wolfgang Malisch, Reiner Lankat, Oliver Fey, Joachim Reising, Siegfried Schmitzer

1921 Porphyrins with Appended Phenanthroline Units: a Means by which Porphyrin π -Systems can be connected to an External Redox Centre

Maxwell J. Crossley, Paul L. Burn, Steven J.

Langford, Jognandan K. Prashar

Porphyrin-2,3-diones react with 1,2,4,5-benzenetetramine and 1,10-phenanthroline-5,6-dione to generate conjugated phenanthroline-appended porphyrin systems

1925 Enantioselective Recognition of Histidine and Lysine Esters by Porphyrin Chiral Clefts and Detection of Amino Acid Conformations in the Bound State

Maxwell J. Crossley, Lindsey G. Mackay, Andrew C. Try

CONTENTS

Corrigendum

1929 The Construction of 1,3-Dienes Containing an *E*-Double Bond and an *exo*-Methylene Group

James J. Eshelby, Philip J. Parsons, Nan C. Sillars, Patrick J. Crowley,

AUTHOR INDEX

Adam, Waldemar, 1831 Aime, Silvio, 1885 Akita, Takeyuki, 1861 Amoroso, Angelo J., 1881 Anderson, James C., 1835 Angermaier, Klaus, 1889 Antoniw, Pari, 1877 Arai, Tatsuo, 1837 Arimura, Takashi, 1891 Arnaud, Roger, 1897 Assmann, Bernd, 1889 Avent, Anthony G., 1869 Basset, Jean-Marie, 1875 Beer, Paul D., 1851 Beezer, Anthony E., 1843 Bégué, Jean-Pierre, 1857 Bill, Eckhard, 1913 Billaud, D., 1867 Birkett, Paul R., 1869 Bloemink, H. I., 1833 Boersma, Jaap, 1839 Bog, Tassilo, 1871 Bolitt, Véronique, 1893 Bonnet-Delpon, Danièle, 1857 Botta, Mauro, 1885 Bricout, Hervé, 1863 Briviba, Karlis, 1831 Bruce, Duncan W., 1911 Burn, Paul L., 1921 Carpentier, Jean-François, 1863 Chaudhuri, Phalguni, 1913 Chavant, Pierre Y., 1897 Chen, Yashao, 1865 Chen, Zheng, 1851 Clare Stourton, E., 1883 Creyghton, Edward J., 1859 Crich, Simonetta Geninatti, 1885 Crippen, Craig, 1875 Crossley, Maxwell J., 1921, Crowley, Patrick J., 1929 Darwish, Adam D., 1869 De Lucchi, Ottorino, 1887 Delogu, Giovanna, 1887 Downing, Roger S., 1859 Drew, Michael G. B., 1851 Duer, Melinda J., 1883 Duschek, Frank, 1831

Eaborn, Colin, 1829

Eshelby, James J., 1929 Fabbri, Davide, 1887 Fabris, Fabrizio, 1887 Faure, Robert, 1847 Fey, Oliver, 1917 Finnie, Jill K., 1843 Gaisford, Simon, 1843 Gale, Philip A., 1851 Ganeshie, Soesiela D., 1859 Giovenzana, Giovanni B., 1885 Gladden, Lynn F., 1883 Golsch, Dieter, 1831 Green, Malcolm L. H., 1853 Griffin, Anselm C., 1883 Grigg, Ronald, 1903 Haggitt, Jane, 1853 Harrison, Alice, 1877 Helmchen, Günter, 1845 Henderson, Richard A., 1905 Herman, Richard G., 1849 Hinds, K., 1833 Hitchcock, Peter B., 1829 Holloway, J. H., 1833 Hou, Wenhua, 1865 Ishida, Takayuki, 1841 Izod, Keith, 1829 Jariwala, Chetan P., 1883 Jastrzebski, Johann T. B. H., 1839 Jeffery, John C., 1881 Jommi, Giancarlo, 1885 Jones, Peter L., 1881 Kawai, Yasushi, 1873 Kiefer, Wolfgang, 1831 King, David J., 1877, 1879 Klier, Kamil, 1849 Knühl, Guido, 1845 Kobayashi, Keiji, 1861 Kodomari, Mitsuo, 1895 Krebs, Carsten, 1913 Kroto, Harold W., 1869 Kubota, Masayuki, 1841 Kurosawa, Shigeru, 1891 Lakin, Miles T., 1839 Langford, Steven J., 1921 Lankat, Reiner, 1917 Legon, A. C., 1833 Loh, Watson, 1843

McCleverty, Jon A., 1881

Mackay, Lindsey G., 1925 Malisch, Wolfgang, 1917 Maskill, H., 1855 Mazaki, Yasuhiro, 1861 Mehnert, Christian P., 1853 Menneer, Iain D., 1855 Miller, David O., 1907 Mitchell, John C., 1843 Miyoshi, Tadahiro, 1895 Molvinger, Karine, 1897 Mortreux, André, 1863 Naji, A., 1867 Nakamura, Kaoru, 1873 Nakanishi, Waro, 1873 Nawa, Satoru, 1895 Nguefack, Jean-Flaubert, 1893 Nogami, Takashi, 1841 Norman, Timothy J., 1877, 1879 Ohashi, Mamoru, 1841 Okazaki, Renji, 1899 Okazaki, Satoshi, 1909 Osuga, Hideji, 1873 Oyama, Munetaka, 1909 Pagliarin, Roberto, 1885 Parker, David, 1877, 1879 Parsons, Philip J., 1929 Pasinszki, Tibor, 1901 Pellissier, Hélène, 1847 Percy, Jonathan M., 1857 Prashar, Jognandan K., 1921 Price, Daniel J., 1911 Priermeier, Thomas, 1871 Pyykkö, Pekka, 1889 Rees, Leigh, 1881 Reising, Joachim, 1917 Rheingold, Arnold L., 1881 Richardson, Tim, 1911 Rijnberg, Evelien, 1839 Rock, Michael H., 1857 Royle, Louise, 1877 Saiki, Toshiyuki, 1899 Santelli, Maurice, 1847 Santini, Catherine C., 1875 Sbrogiò, Federico, 1887 Schmidbaur, Hubert, 1889 Schmitzer, Siegfried, 1917 Scott, Susannah L., 1875 Sekiya, Akira, 1891 Sennhenn, Peter, 1845

Shibakami, Motonari, 1891 Shinozuka, Koji, 1841 Shogase, Yuka, 1873 Siddons, D. Craig, 1835 Sies, Helmut, 1831 Sillars, Nan C., 1929 Sinou, Denis, 1893 Sisti, Massimo, 1885 Smith, David I., 1855 Smith, Fiona C., 1879 Smith, J. David, 1829 Smith, Stephen C., 1835 Sözerli, Sebnem E., 1829 Spek, Anthony L., 1839 Sridharan, Visuvanathar, 1903 Sun, Qun, 1849 Sun, Yimin, 1881 Suzuki, Hitomi, 1873 Swarbrick, Martin E., 1835 Takahashi, Osamu, 1837 Takats, Josef, 1881 Takei, Atsushi, 1909 Tamura, Masanori, 1891 Tanaka, Kazuhiko, 1873 Tandon, Santokh S., 1907 Taylor, Roger, 1869 Thiel, Werner R., 1871 Thompson, Laurence K., 1907 Tokitoh, Norihiro, 1899 Trofimenko, Swiatoslaw, 1881 Try, Andrew C., 1925 Valle, Giovanni, 1887 Vallée, Yannick, 1897 van Bekkum, Herman, 1859 van Koten, Gerard, 1839 Walton, David R. M., 1869 Ward, Michael D., 1881 Westwood, Nicholas P. C., 1901 Weyhermüller, Thomas, 1913 Wieghardt, Karl, 1913 Wilkes, Robin D., 1857 Williams, Stuart J., 1843 Willmann, P., 1867 Winter, Manuela, 1913 Xu, Long-He, 1903 Yan, Qijie, 1865 Yap, Glenn P. A., 1881