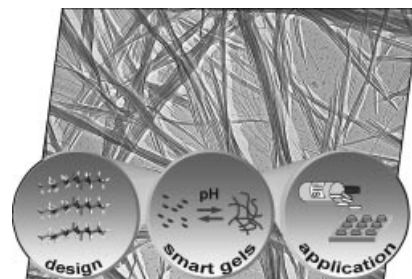


COVER PICTURE

The cover picture shows a transmission electron micrograph revealing the three-dimensional entangled network of fibers found in aqueous solutions of a bis-urea cyclohexane hydrogelator. What these and many other low molecular weight hydrogelators have in common is that they effectively self-assemble into elongated fibers, which in turn form a three-dimensional network that leads to the formation of a gel. The reversible formation of these gels and their unique viscoelastic properties are currently attracting much interest because of potential applications in, for example, drug delivery, and because the supramolecular chemical approach towards the design of novel hydrogelators has led to gels with tailor-made properties. The recent developments in this rapidly emerging field of research are discussed in the Microreview by M. de Loos, B. L. Feringa, and J. H. van Esch on p. 3615ff.



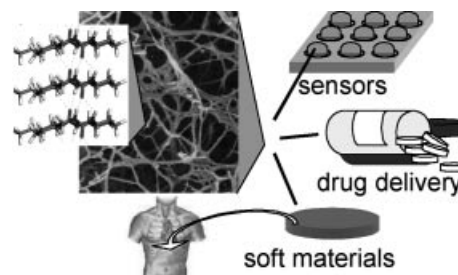
MICROREVIEW

Contents

3615 M. de Loos, B. L. Feringa,* J. H. van Esch*

Design and Application of Self-Assembled Low Molecular Weight Hydrogels

Keywords: Hydrogels / Low molecular weight gelators / Self-assembly / Supramolecular chemistry / Smart materials



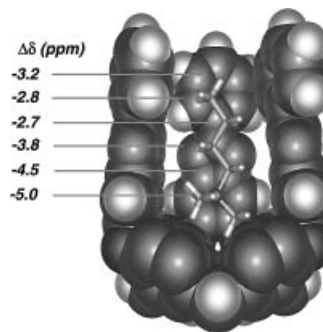
SHORT COMMUNICATIONS

- 3633** E. Menozzi, H. Onagi, A. L. Rheingold, J. Rebek, Jr.*



Extended Cavitands of Nanoscale Dimensions

Keywords: Supramolecular chemistry / Cavitands / Host-guest systems

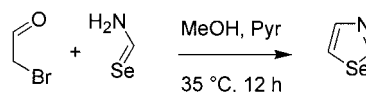


- 3637** H. Below,* W.-D. Pfeiffer, K. Geisler, M. Lalk, P. Langer*



1,3-Selenazole

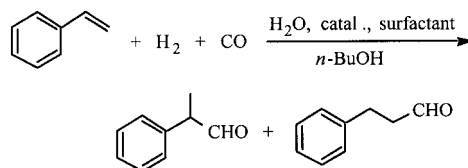
Keywords: Cyclizations / Heterocycles / Selenium / 1,3-Selenazole



- 3640** R. Abu-Reziq, D. Avnir,* J. Blum*

Three-Phase Microemulsion/Sol-Gel System for Aqueous Catalytic Hydroformylation of Hydrophobic Alkenes

Keywords: Heterogeneous catalysis / Hydroformylation / Microemulsion / Rhodium / Three-phase transport



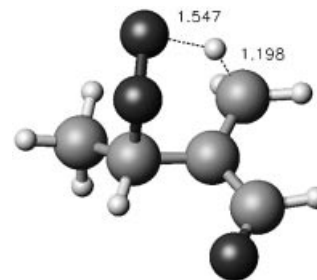
catal.: $\{\text{Rh}(\text{cod})[\mu\text{-S}(\text{CH}_2)_3\text{Si}(\text{O})_3\equiv]\}_2/5\text{PPh}_3/\text{sol-gel}$
surfactant: $\{\text{Me}_2\text{N}(\text{C}_{12}\text{H}_{25})[(\text{CH}_2)_2\text{OH}]\}\text{Br}$

FULL PAPERS

- 3643** A. Maranzana, C. Canepa, G. Ghigo, G. Tonachini*

Theoretical Study on the Reactivity and Regioselectivity of the Ene Reaction of $^1\Delta_g \text{O}_2$ with α,β -Unsaturated Carbonyl Compounds

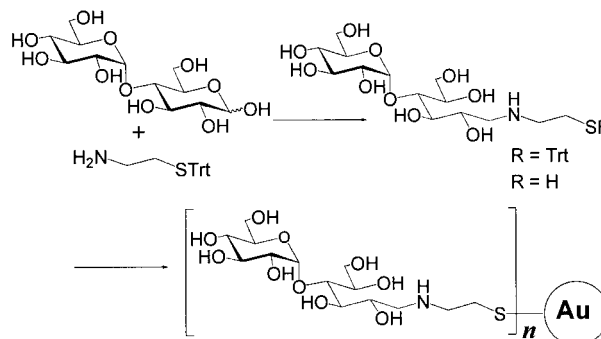
Keywords: Singlet Oxygen / $^1\Delta_g \text{O}_2$ / α,β -Unsaturated carbonyl compounds / Regioselectivity / Density functional calculations / Ene and cycloaddition reactions



- 3650** K. M. Halkes, A. Carvalho de Souza, C. E. P. Maljaars, G. J. Gerwig, J. P. Kamerling*

A Facile Method for the Preparation of Gold Glyconanoparticles from Free Oligosaccharides and Their Applicability in Carbohydrate-Protein Interaction Studies

Keywords: Gold glyconanoparticles / Carbohydrates / Surface plasmon resonance / UV/Vis spectroscopy / Transmission electron microscopy

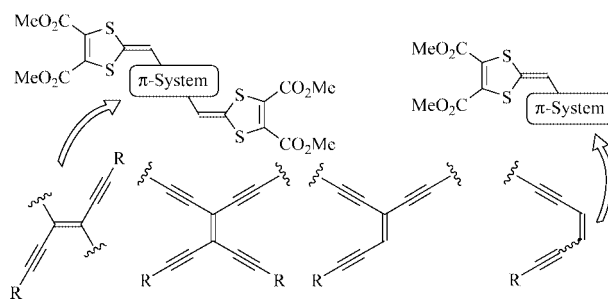


3660

A. S. Andersson, K. Qvortrup,
E. R. Torbensen, J.-P. Mayer,
J.-P. Gisselbrecht, C. Boudon, M. Gross,
A. Kadziola, K. Kilså, M. B. Nielsen*

Synthesis and Characterization of Extended
Tetrathiafulvalenes with Di-, Tri-, and Tetra-
ethynylethene Cores

Keywords: Alkynes / Conjugation / C–C coupling /
Cross-coupling / Donor–acceptor systems

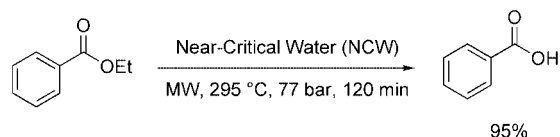


3672

J. M. Kremsner, C. O. Kappe*

Microwave-Assisted Organic Synthesis in Near-
Critical Water at 300°C – A Proof-of-Concept
Study

Keywords: Green chemistry / High temperature
chemistry / Microwaves / Water chemistry

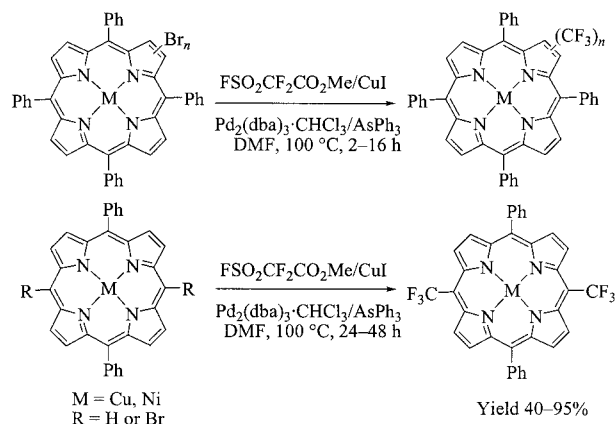


3680

C. Liu, Q.-Y. Chen*

Fluoroalkylation of Porphyrins: A Facile Syn-
thesis of Trifluoromethylated Porphyrins by a
Palladium-Catalyzed Cross-Coupling Reaction

Keywords: Porphyrins / Palladium / As ligands /
Fluorine



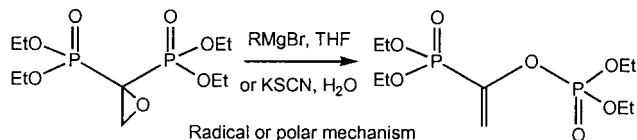
3687

S. H. Szajman, G. García Liñares,
P. Moro, J. B. Rodriguez*



New Insights into the Chemistry of *gem*-Bis-
(phosphonates): Unexpected Rearrangement of
Michael-Type Acceptors

Keywords: Bis(phosphonic acids) / Michael additions /
Radical mechanism / Polar mechanism

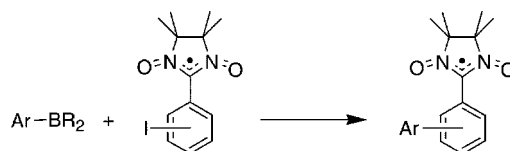


3697

C. Stroh, M. Mayor,* C. von Hänisch

Suzuki Reactions with Stable Organic Radicals
– Synthesis of Biphenyls Substituted with
Nitronyl-Nitroxide Radicals

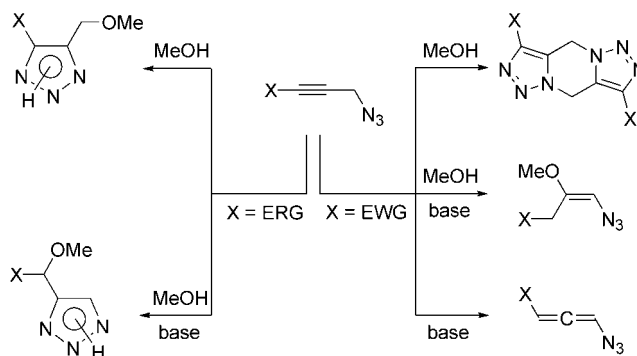
Keywords: C–C Coupling / Radicals / Magnetic
properties / Nitronyl nitroxide



3704 J. R. Fotsing, K. Banert*

First Propargyl Azides Bearing Strong Acceptor Substituents and Their Effective Conversion into Allenyl Azides: Influence of the Electronic Effects of Substituents on the Reactivity of Propargyl Azides

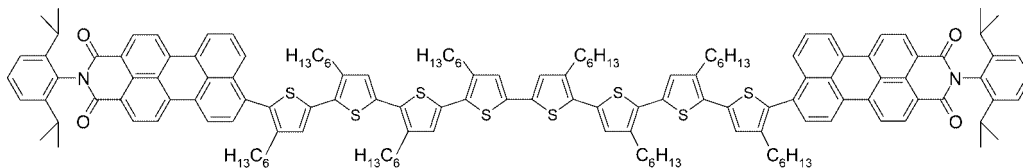
Keywords: Azides / Propargyl azides / Allenyl azides / Triazoles / Rearrangements



3715 J. Cremer, P. Bäuerle*

Perylene–Oligothiophene–Perylene Triads for Photovoltaic Applications

Keywords: Conjugated oligomers / Photochemistry / Oligothiophene / Organic solar cell / Perylene / Donor-acceptor systems

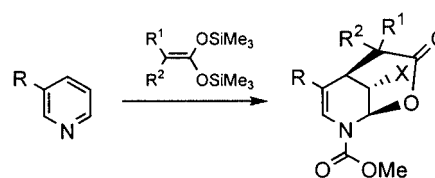


3724 H. Rudler,* B. Denise, Y. Xu, A. Parlier, J. Vaissermann



Bis(trimethylsilyl)ketene Acetals as C,O-Di-nucleophiles: One-Pot Formation of Polycyclic γ - and δ -Lactones from Pyridines and Pyrazines

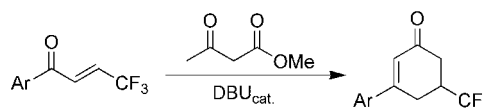
Keywords: Bis(trimethylsilyl)ketene acetals / Pyridines / Methyl chloroformate / Nucleophilic additions / γ - and δ -lactones / Pyrazines



3745 C. Christophe, T. Billard,* B. R. Langlois*

A Concise Synthesis of Trifluoromethylated Cyclohexenones: A One-Pot, Five-Step Domino Reaction

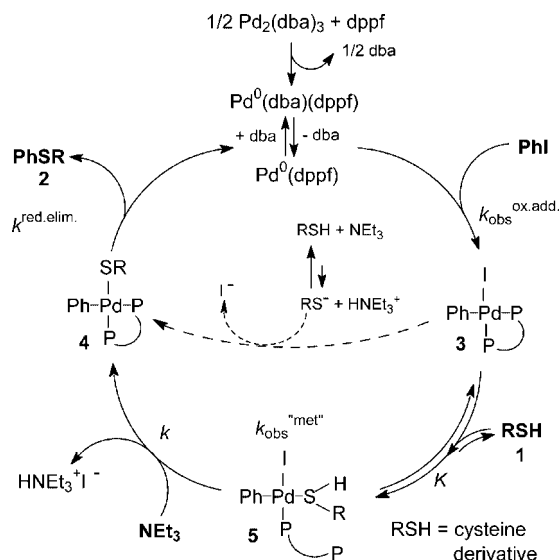
Keywords: Fluorine / Enones / Domino reactions / Cyclization



3749 X. Moreau, J. M. Campagne,* G. Meyer,
A. Jutand*

Palladium-Catalyzed C–S Bond Formation:
Rate and Mechanism of the Coupling of Aryl
or Vinyl Halides with a Thiol Derived from a
Cysteine

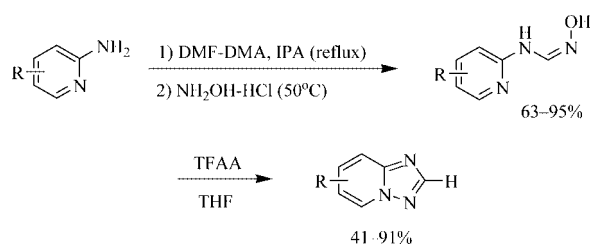
Keywords: Palladium / C–S coupling / Reaction
mechanisms / Kinetics / Atropisomerism



3761 E. Huntsman, J. Balsells*

New Method for the General Synthesis of
[1,2,4]Triazolo[1,5-*a*]pyridines

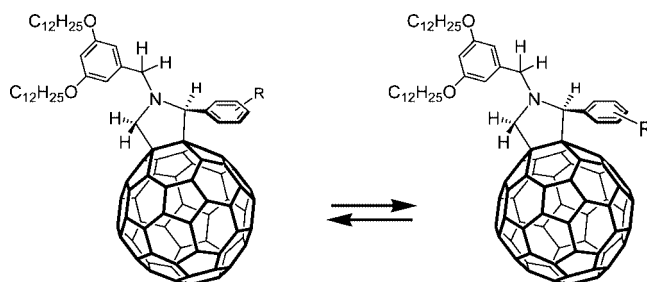
Keywords: Nitrogen heterocycles / Fused ring sys-
tems / Cyclization



3766 F. Ajamaa, T. M. Figueira Duarte,
C. Bourgogne, M. Holler, P. W. Fowler,
J.-F. Nierengarten*

Restricted Rotation in (Phenylpyrrolidino)fuller-
ene Derivatives

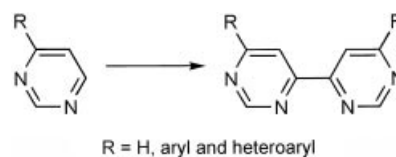
Keywords: Conformational studies / Cycloaddition /
Fullerene / Restricted rotation



3775 E. Ioachim, E. A. Medlycott,
M. I. J. Polson, G. S. Hanan*

Synthesis of a Novel Series of 6,6'-Disubstituted
4,4'-Bipyrimidines by Radical Anion Coupling:
New π -Accepting Ligands for Coordination
Chemistry

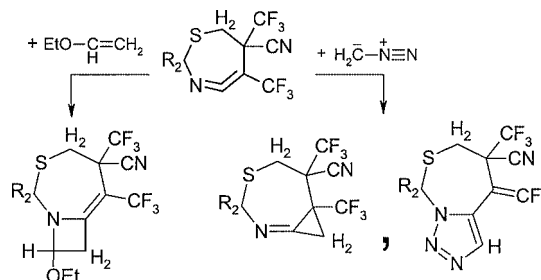
Keywords: Heterocycles / N ligands / Radical reac-
tions / Homocoupling reactions / Electro-
chemistry



3781 H. Giera, R. Huisgen,* K. Polborn

Cycloadditions with Cyclic Seven-Membered Ketene Imines

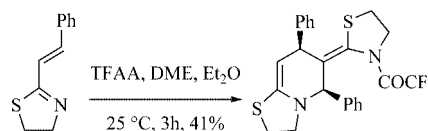
Keywords: Ketene imines / Cycloadditions / Heterocycles / Vinyl ethers / Diazo compounds



3791 A. Beutler, C. D. Davies, M. C. Elliott,*
N. M. Galea, M. S. Long, D. J. Willock,
J. L. Wood

Diastereoselective Dimerisation of Alkenylthiazolines: A Combined Synthetic and Computational Study

Keywords: Heterocycles / Thiazolines / Dimerisation / Diastereoselectivity / Semiempirical calculations

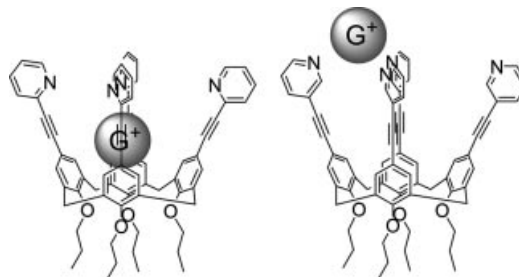


3801 G. Dyker,* M. Mastalerz, I. M. Müller



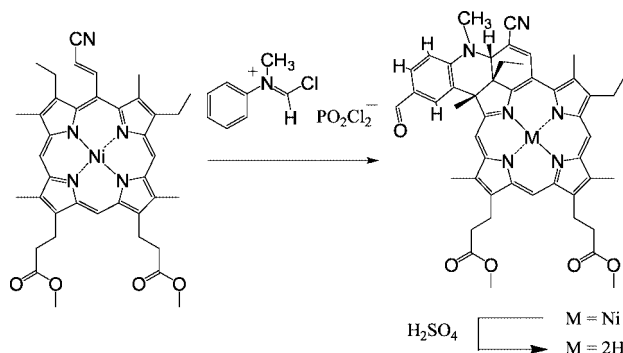
Electron-Rich Cavitands via Fourfold Sonogashira Cross-Coupling Reaction of Calix[4]-arenes and Bromopyridines – Effect of the Nitrogen Position on Complexation Abilities

Keywords: Calixarenes / Host-Guest systems / Molecular recognition / Pyridines / Quaternary ammonium ions



3813 R. S. van der Haas, S.-H. Tang,
B. Arenas Hernández, R. L. P. de Jong,
C. Erkelens, Y. Liu, P. Gast, T. G. M. Smijs,
H. J. Schuitmaker, J. Lugtenburg*

Synthesis of the Dimethyl Ester of 2'-Cyano-8'-formyl-*N'*-methyl-1',1a',5a',6'-tetrahydroacrido[4,5,5a,6-*bcd*]-Annulated 2,3-Dihydroporphyrin – A Novel System with Outstanding Properties as Basis for Photodynamic Therapy in the Far-Red Region of the Visible Spectrum

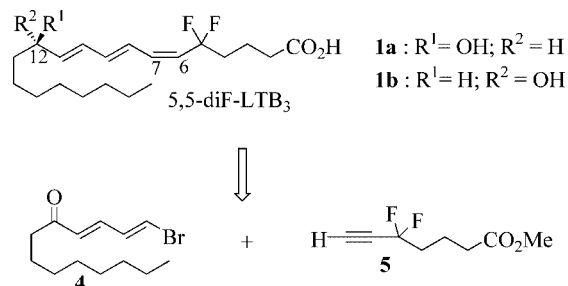


Keywords: Porphyrinoids / Cyclization / NMR spectroscopy / Singlet oxygen / Biological activity

3825 V. L. Manthati, D. Grée, R. Grée*

Stereoselective Synthesis of the 5,5-Difluoro-
(12*R*)- and -(12*S*)-Leukotrienes B₃

Keywords: Fluorine / Leukotrienes / Eicosanoids / En-
antioselectivity / Stereoselective synthesis



3830 O. Itsenko, T. Kihlberg, B. Långström*

Synthesis of Aliphatic [*carbonyl*-¹¹C]Esters
Using [¹¹C]Carbon Monoxide

Keywords: Carbon-11 / Carbon-13 / Isotopic label-
ing / Esters / Radicals / Carbonylation

