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Graphical Abstracts/J. Fluorine Chem. 130 (2009) 263–266

J. Fluorine Chem., 130 (2009) 267

Pentafluorobenzaldehyde and its utilizing in organic synthesis

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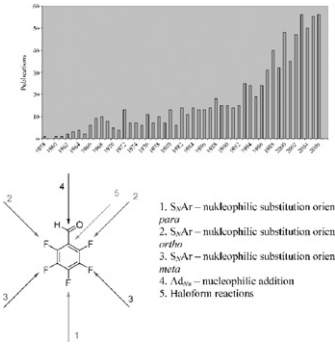

J. Fluorine Chem., 130 (2009) 295

A facile stereoselective synthesis of 2-perfluoroalkyl-3a,4,5,6-tetrahydroimidazo[1,5-*b*]isoxazoles

Lei Lu[a], Weiguo Cao[a,b,c], Jie Chen[a], Hui Zhang[a], Jiaping Zhang[a], Huiyun Chen[a], Jiamei Wei[a], Hongmei Deng[d], Min Shao[d]

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[c]*State Key Laboratory of Organometallic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Science, Shanghai 200032, China*
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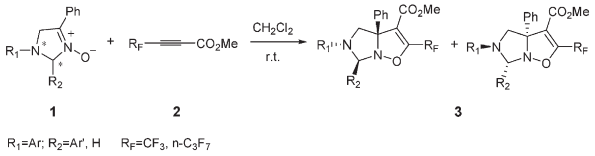

2-Perfluoroalkyl-3a,4,5,6-tetrahydroimidazo[1,5-*b*]isoxazoles **3** were obtained in good yields with high diastereoselectivity and regioselectivity *via* the reaction of excess methyl 2-perfluoroalkynoates **2** with cyclic nitrones **1** *via* 1,3-dipolar cycloaddition.

J. Fluorine Chem., 130 (2009) 301

A widely varying range of products in reactions of $C_6F_5BrF_2$, $C_6F_5IF_2$, and $C_6F_5IF_4$ with Lewis acids of different strength

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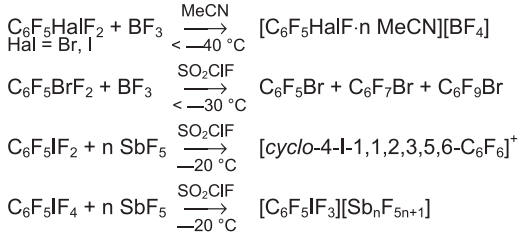
Results of the interaction of $C_6F_5HalF_{n-1}$ (n = 3, 5) with Lewis acids EF_m depend on the acid strength of EF_m, the coordinating property of the solvent, the thermal stability of the product, and the oxidation number of Hal.



doi:10.1016/S0022-1139(09)00038-4

J. Fluorine Chem., 130 (2009) 308

Novel perfluoroalkylated oligo(oxyethylene) methyl ethers with high hemocompatibility and excellent co-emulsifying properties for potential biomedical uses

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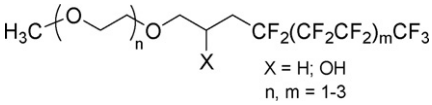
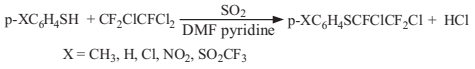


J. Fluorine Chem., 130 (2009) 317

Chain-radical fluoroalkylation of thiophenols with freon $ClCF_2CFCl_2$ in the presence of sulfur dioxide

Vyacheslav G. Koshechko, Lydiya A. Kiprianova, Ludmyla I. Kalinina

L.V. Pisarzhevsky Institute of Physical Chemistry of the National Academy of Sciences of Ukraine, Pr.Nauky 31, Kiev 03028, Ukraine



J. Fluorine Chem., 130 (2009) 321

Reactions of trimethylsilyl fluorosulfonyldifluoroacetate with purine and pyrimidine nucleosides

Magdalena Rapp[a], Xiaohong Cai[b], Wei Xu[b], William R. Dolbier Jr.[b], Stanislaw F. Wnuk[a]

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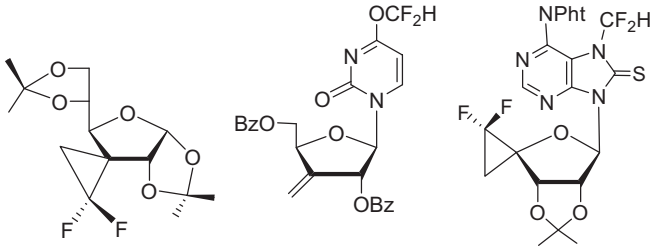
Difluorocarbene, generated from TFDA, reacts with the uridine and adenosine substrates preferentially at the enolizable amide moieties of the heterocyclic bases. It also adds to the exomethylene double bonds of sugar rings.



J. Fluorine Chem., 130 (2009) 329

The addition of perfluoroalkanesulfinyl chlorides to alkoxyallenes

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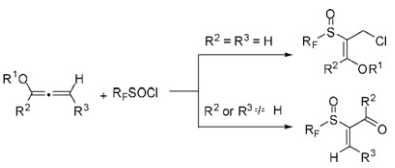
Perfluoroalkanesulfinyl chlorides reacted with alkoxyallenes under mild conditions to give two kinds of perfluoroalkyl alkenyl sulfoxides selectively depending on the structure of alkoxyallenes.



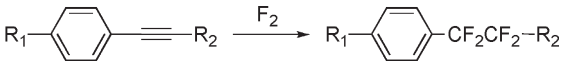
J. Fluorine Chem., 130 (2009) 332

Direct addition of fluorine to arylacetylenes

Julia Gatenyo, Shlomo Rozen

School of Chemistry, Tel-Aviv University, Tel-Aviv 69978, Israel

Under suitable conditions elemental fluorine can be added across the carbon–carbon triple bond of arylacetylenes forming aryltetrafluoroethane derivatives – $ArCF_2CF_2R$ – in good yields.



J. Fluorine Chem., 130 (2009) 336

Thermodynamic analysis of $LiF–BeF_2$ and $KF–BeF_2$ melts by a structural model

Antonio Romero-Serrano[a], Manuel Hallen-Lopez[a], Beatriz Zeifert[a], Carlos Gomez-Yañez[b], Aurelio Hernandez-Ramirez[a]

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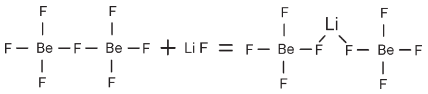
The evaluation of the thermodynamic properties for the binary $LiF–BeF_2$ and $KF–BeF_2$ systems are carried out with a thermodynamic model which is based on the assumption that each alkali fluoride produces the depolymerization of BeF_2 network with a characteristic free energy change.



J. Fluorine Chem., 130 (2009) 341

Synthesis, variable temperature NMR investigations and solid state characterization of novel octafluorofluorene compounds

Fabio Marchetti[a], Fabio Marchetti[a], Francesco Masi[b], Guido Pampaloni[a], Vincenzo Passarelli[a], Anna Sommazzi[c], Silvia Spera[c]

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[b]*Polimeri Europa, Piazza Boldrini 1, I-20097 San Donato Milanese, Italy*
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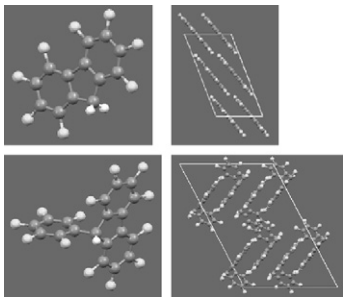
New octafluorofluorene derivatives have been prepared in high yields. The structures have been elucidated either in solution (variable temperature ^{19}F NMR spectra) and/or in the solid state (X-ray crystal structures).



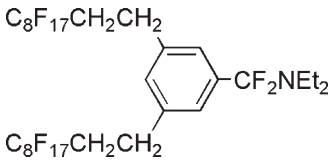
J. Fluorine Chem., 130 (2009) 348

Fluorination of alcohols and diols with a novel fluorous deoxy-fluorination reagent

Tsukasa Furuya, Takashi Nomoto, Tsuyoshi Fukuhara, Shoji Hara

Graduate School of Engineering, Hokkaido University, Sapporo 060-8628, Japan

A fluorous deoxy-fluorination reagent *N*,*N*-diethyl-α,α-difluoro-[3,5-bis(1*H*,1*H*,2*H*,2*H*-perfluorodecyl)benzyl]amine.



J. Fluorine Chem., 130 (2009) 354

Perfluorocyclobutyl-based methacrylate monomers: Synthesis and radical polymerization

Yongjun Li[a,b,c], Sen Zhang[b], Liang Tong[b], Qingnuan Li[a], Wenxin Li[a], Guolin Lu[b], Hao Liu[b], Xiaoyu Huang[b]

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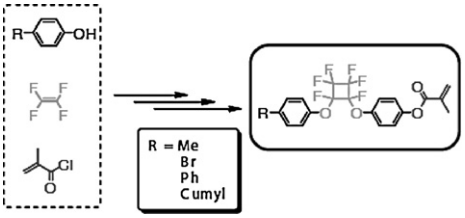
[b]*Key Laboratory of Organofluorine Chemistry and Laboratory of Polymer Materials, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 Fenglin Road, Shanghai 200032, PR China*
[c]*Graduate University of Chinese Academy of Sciences, Beijing 100080, PR China*



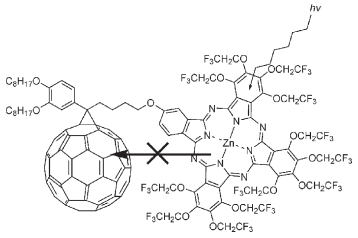
A new class of methacrylate monomers containing perfluorocyclobutyl unit was synthesized in multi-steps including crossing-dimerization, demethylation and esterification. These monomers can be polymerized in solution to provide perfluorocyclobutyl-based polymethacrylate, a kind of potential transparent material.

J. Fluorine Chem., 130 (2009) 361

Synthesis and spectroscopic investigation of trifluoroethoxy-coated phthalocyanine linked with fullerene

Daisuke Sukeguchi, Hideyuki Yoshiyama, Norio Shibata, Shuichi Nakamura, Takeshi Toru, Yasuhiko Hayashi, Tetsuo Soga

Department of Frontier Materials, Graduate School of Engineering, Nagoya Institute of Technology, Gokiso, Showa-ku, Nagoya 466-8555, Japan



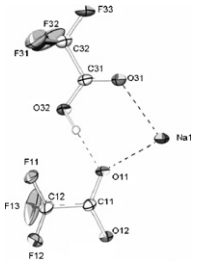
Synthesis and spectroscopic investigation of trifluoroethoxy-coated phthalocyanine–fullerene dyad **2** has been described. The dyad **2**, regardless of its covalently linked dyad system, appears not to show any electronic communication between fullerene and phthalocyanine. This is a unique example that fluorine can terminate electronic communication in the covalently fullerene–phthalocyanine dyad system.

J. Fluorine Chem., 130 (2009) 365

A one-dimensional coordination polymer formed by a 2:1 adduct of trifluoroacetic acid and its sodium salt

Stefan Spirk, Ferdinand Belaj, Jürgen Kahr, Rudolf Pietschnig

Department of Chemistry, Karl-Franzens-University Graz, Schubertstrasse 1, A-8010 Graz, Austria



The crystal structure of the 2:1 adduct of trifluoroacetic acid and its sodium salt has been determined and its bond situation is compared to earlier descriptions based on IR spectroscopy and dissociation pressure measurements.

J. Fluorine Chem., 130 (2009) 368

One-pot synthesis of highly functionalized stable ketenimines of 2,2,2-trifluoro-*N*-aryl-acetamides

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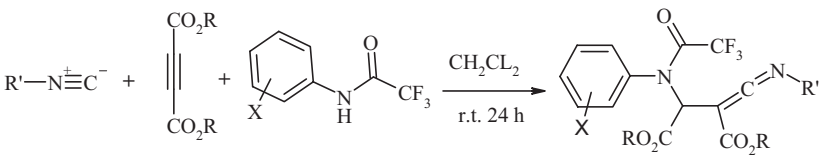
[b]*Department of Chemistry, Islamic Azad University, Mahshahr Branch, Mahshahr, Iran*



Three-component reaction between isocyanides, dialkyl acetylenedicarboxylates and 2,2,2-trifluoro-*N*-aryl-acetamides afforded functionalized ketenimines in good yields.