

Graphical Abstracts/J. Fluorine Chem. 128 (2007) 1–86

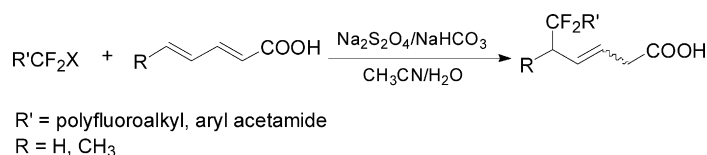
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The reaction of fluorine-containing compounds with conjugated dienoic acids initiated by sodium dithionite

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^bKey Laboratory of Organofluorine Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China



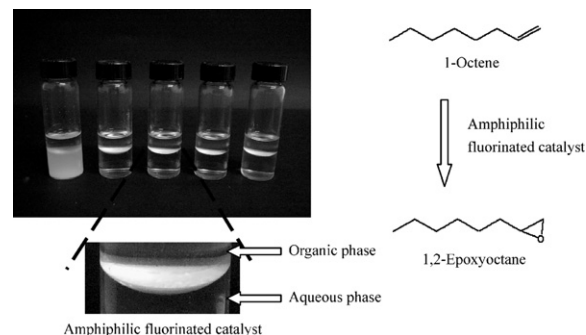
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Biphasic epoxidation of 1-octene with H₂O₂ catalyzed by amphiphilic fluorinated Ti-loaded zirconia

Yun Hau Ng, Izan Izwan, Hadi Nur, Mohd Nazlan Mohd Muhid, Halimaton Hamdan

Ibnu Sina Institute for Fundamental Science Studies, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia

Fluorinated ZrO₂ catalysts with amphiphilic properties were prepared through fluorination and partial alkylsilylation. These chemical modifications efficiently enhanced the catalytic epoxidation capability of the catalyst.



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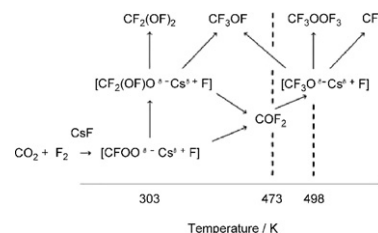
Reaction between carbon dioxide and elementary fluorine

Yasuo Hasegawa^b, Reiko Otani^b, Susumu Yonezawa^b, Masayuki Takashima^a

^aDepartment of Materials Science and Engineering, Faculty of Engineering, Fukui University, 3-9-1 Bunkyo, Fukui 910-8507, Japan

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Scheme of the reaction processes between F₂ and CO₂.



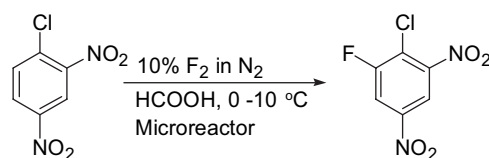
J. Fluorine Chem., 128 (2007) 29

Elemental fluorine. Part 20. Direct fluorination of deactivated aromatic systems using microreactor techniques

Richard D. Chambers^a, Mark A. Fox^a, Graham Sandford^a, Jelena Trmcic^a, Andres Goeta^b

^aDepartment of Chemistry, University of Durham, South Road, Durham DH1 3LE, United Kingdom

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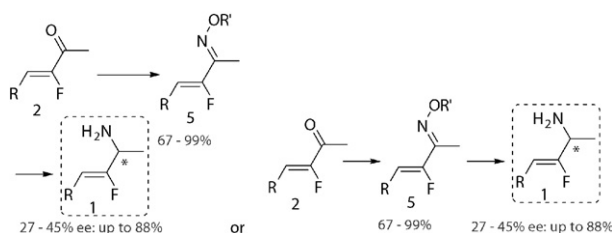
*J. Fluorine Chem.*, 128 (2007) 34

First enantioselective reductive amination of α -fluoroenones

Guillaume Dutheil, Laetitia Bailly, Samuel Couve-Bonnaire, Xavier Pannecoucke

IRCOF-ECOFH, UMR CNRS 6014, INSA de ROUEN, rue Tesnière, 76131 Mont-Saint-Aignan, France

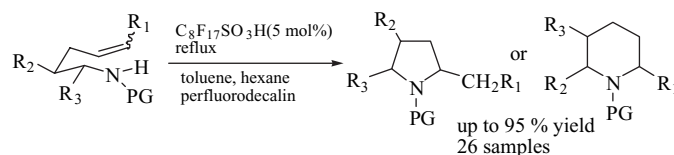
The first enantioselective reduction of ketimines, via oxazaborolidine, is described with moderate to good enantiomeric excesses, leading to valuable chiral fluoroallylic amines **1**.

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Heptadecafluorooctanesulfonic acid ($C_8F_{17}SO_3H$) catalyzed intramolecular hydroamination of olefinic sulfonamides in fluorous biphasic system (FBS)

Yan Yin, Gang Zhao

Laboratory of Modern Synthetic Organic Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, 354 FengLin Lu, Shanghai 200032, China

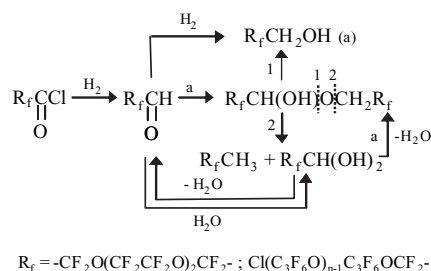
*J. Fluorine Chem.*, 128 (2007) 46

New hydrofluoropolyethers. I. Synthesis and reaction pathway evaluation

Claudio Tonelli, Antonella Di Meo, Rosaldo Picozzi

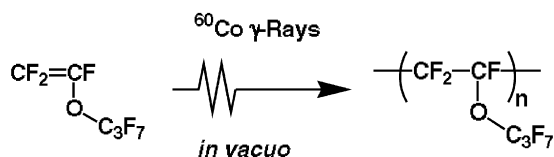
Solvay Solexis S.p.A., V.le Lombardia 20, 20021 Bollate, Milano, Italy

A novel family of hydrofluoropolyethers (HFPEs) was obtained with 60–80% selectivity by hydrogenation of perfluoropolyether acyl chlorides with Pt/CaF₂.

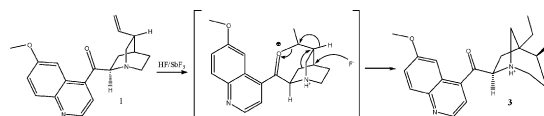


J. Fluorine Chem., 128 (2007) 52 **γ -Rays radiation-induced homopolymerization of trifluorovinyl heptafluoropropyl ether**Tadashi Narita^a, Kazuyuki Enomoto^b, Yasunari Maekawa^b, Masaru Yoshida^b, Mitsuru Ichikawa^c, Hiroshi Hamana^c^aDepartment of Materials Science and Engineering, Graduate School of Engineering, Saitama Institute of Technology, 1690 Fusaiji, Fukaya 369-0293, Japan^bTakasaki Advanced Radiation Institute, Japan Atomic Energy Agency, 1233 Watanuki, Takasaki 370-1292, Japan^cDepartment of Applied Chemistry, Faculty of Engineering, Saitama Institute of Technology, Japan

The polymerization of perfluorovinyl propyl ether ($\text{CF}_2=\text{CF}-\text{O}-\text{C}_3\text{F}_7$) (FVPE) was investigated by γ -rays irradiation to afford high-molecular weight polymer of FVPE.

*J. Fluorine Chem.*, 128 (2007) 55**Rearrangement and fluorination of quinidinone in superacid**Vincent Chagnault^a, Sébastien Thibaudeau^a, Marie-Paule Jouannetaud^a, Jean-Claude Jacquesy^a, Alain Cousson^b, Christian Bachmann^c^aLaboratoire "Synthèse et Réactivité des Substances Naturelles", UMR 6514, 40, Avenue du Recteur Pineau, F-86022 Poitiers Cedex, France^bLaboratoire Léon Brillouin-CEA Saclay, 91191 Gif-sur-Yvette Cedex, France^cLaboratoire de Catalyse en Chimie Organique, UMR 6503, 40, Avenue du Recteur Pineau, F-86022 Poitiers Cedex, France

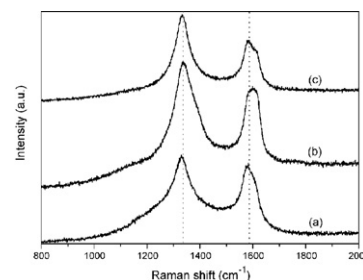
In HF/SbF_5 at -78°C , quinidinone **1** yields fluoroketone **3** (50% yield). The reaction implies a cyclic carboxonium ion as an intermediate, which reacts through a concerted rearrangement and fluorination to yield ketone **3**.

*J. Fluorine Chem.*, 128 (2007) 60**A comparative study on properties of multi-walled carbon nanotubes (MWCNTs) modified with acids and oxyfluorination**

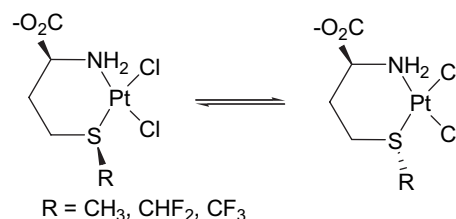
Shin Dong Kim, Ju Wan Kim, Ji Sun Im, Young Ho Kim, Young Seak Lee

Department of Fine Chemical Engineering & Applied Chemistry, BK21-E²M, Chungnam National University, Daejeon 305-764, Republic of Korea

The shape and relative intensity of Raman spectra were changed due to acid treatment and oxyfluorination. Raman spectra of (a) as-received; (b) acid treated; (c) oxyfluorinated MWCNTs.

*J. Fluorine Chem.*, 128 (2007) 65**Experimental and theoretical studies on inversion dynamics of dichloro(L-difluoromethionine-*N,S*)platinum(II) and dichloro(L-trifluoromethionine-*N,S*)platinum(II) complexes**Mark D. Vaughan^a, Valerie J. Robertson^b, John F. Honek^a^aDepartment of Chemistry, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada^bDepartment of Chemistry, University of Guelph, Guelph, Ontario N1G 2W1, Canada

NMR spectroscopy and *ab initio* calculations have been utilized to explore the sulphur inversion barrier in platinum complexes of difluoromethionine and trifluoromethionine.

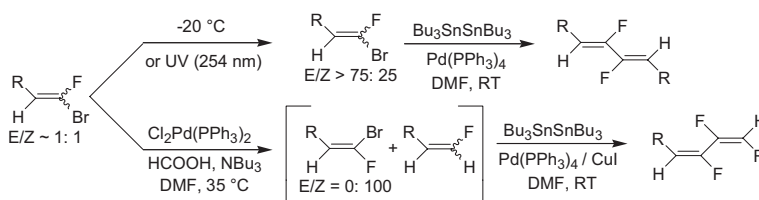


Stereospecific preparation of symmetrical (1Z, 3Z)- and (1E, 3E)-2,3-difluoro-1,4-disubstituted-but-1,3-dienes from 1-bromo-1-fluoroalkenes

Jianjun Xu, Donald J. Burton

Department of Chemistry, University of Iowa, Iowa City, IA 52242, United States

A straightforward method to prepare symmetrical (1Z, 3Z) and (1E, 3E) 2,3-difluoro-1,4-disubstituted-but-1,3-dienes from high *E/Z* ratio and (*Z*) 1-bromo-1-fluoroalkenes, respectively is described.

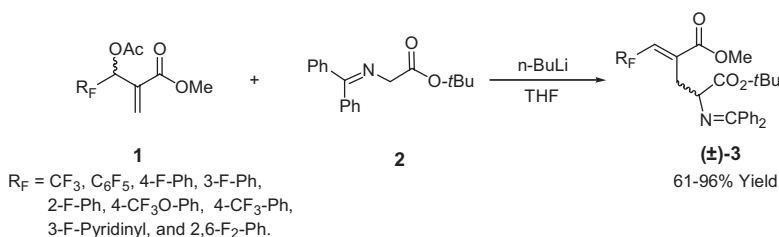


Synthesis of fluorinated glutamic acid derivatives via vinylalumination

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^bDepartment of Chemistry and Chemical Biology, Indiana University Purdue University Indianapolis, Indianapolis, IN 46202-3274, United States



Studies on sulfinatodehalogenation: The addition of polyfluoroalkyl iodides to olefins promoted by sodium bisulfite and sodium sulfite

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^aSchool of Chemistry and Molecular Engineering, East China University of Science and Technology, Shanghai 200237, China

^bShanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China

The reaction of polyfluoroalkyl iodides with alkenes or 4-pentenoic acid promoted by sodium bisulfite or sodium sulfite in DMF aqueous solution gave corresponding adducts and γ -lactones in moderate to good yields.

