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Graphical Abstracts/J. Fluorine Chem. 128 (2007) 465–468

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New approaches to enantioselective fluorination: Cinchona alkaloids combinations and chiral ligands/metal complexes

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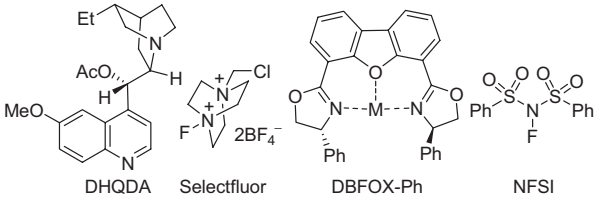
The background of our personal story of the enantioselective fluorination reaction as well as the recent advances in this area by other groups is discussed.



J. Fluorine Chem., 128 (2007) 484

QSPR analysis of fluorophilicity for organic compounds

Andrew G. Mercader, Pablo R. Duchowicz, Miguel A. Sanservino, Francisco M. Fernández, Eduardo A. Castro

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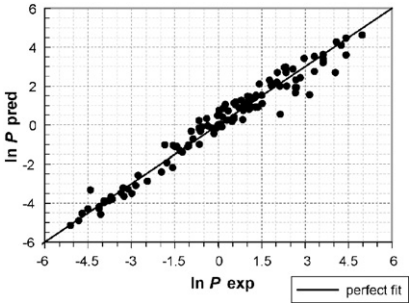
We constructed a QSPR model from 116 organic compounds for the prediction of fluorophilicity, 1268 theoretical descriptors were explored by means of linear regressions leading to an optimal seven-parameter equation with a correlation coefficient $R = 0.9807$.



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Synthesis and characterization of tri-block fluorinated-*n*-alkanes

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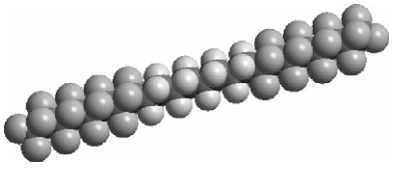
[b]*Institute of Molecular Sciences, C.N.R., Via Marzolo 9, Padova and Corso Stati Uniti, Camin, Padova, Italy*

Triblock semifluorinated *n*-alkanes are obtained, for instance, by double addition of perfluoroalkyl iodides $F(CF_2)_nI$ to a linear diene to give the corresponding diiodo adducts and subsequent deiodination under reductive conditions



doi:10.1016/S0022-1139(07)00111-X

J. Fluorine Chem., 128 (2007) 500

Enantioselective organocatalytic route to trifluoromethyl-β-amino acids using chiral bases

Valérie Michaut[a], François Metz[b], Jean-Marc Paris[b], Jean-Christophe Plaquevent[a]

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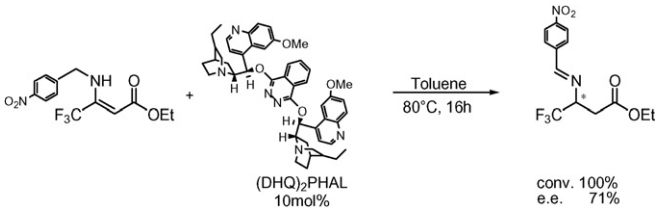
[b]*Rhodia Recherches, Centre de Recherches de Lyon, 85 avenue des Frères Perret F-69192 Saint-Fons, France*

Enantioselective (1,3) proton transfer of ETFAA amino derivatives leads to ee's as high as 71%.



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Synthesis of 4-fluoroalkyl-substituted pyridazines from fluorinated diazodiketones

Valerij A. Nikolaev[a], Valerija M. Zakharova[a,b], Lothar Hennig[b], Joachim Sieler[b]

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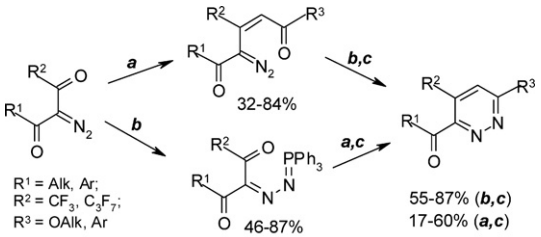
[b]*Universität Leipzig, Institut für Organische Chemie, Johannisallee 29, 04103 Leipzig, Germany*

The synthesis of 4-fluoroalkyl-containing 3,4,6-trisubstituted pyridazines from fluorinated diazodiketones using Wittig, Staudinger, *diaza*-Wittig or Staudinger, Wittig, *diaza*-Wittig reaction sequences is described.

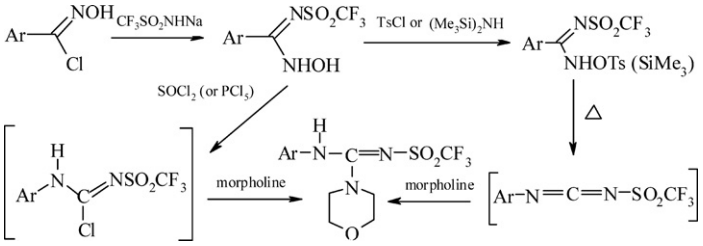


J. Fluorine Chem., 128 (2007) 515

Trifluoromethanesulfonylimides of arenehydroxamic acids and their aza Lossen rearrangement

Lev M. Yagupolskii, Svetlana V. Shelyazhenko, Irina I. Maletina, Liubov V. Sokolenko, Alexander N. Chernega, Eduard B. Rusanov, Ivan F. Tsymbal

Institute of Organic Chemistry, National Academy of Sciences of Ukraine, 02660, Murmanskaya Str. 5, Kiev, Ukraine



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Efficient microwave enhanced solvent-free synthesis of potent antifungal agents: Fluorinated benzothiazepine fused β-lactam derivatives

Anshu Dandia, Ruby Singh, Sarita Khaturia

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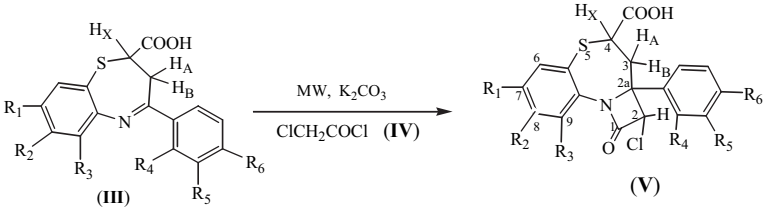
A rapid and efficient method is described for the synthesis of 2-chloro-2a-(substituted phenyl)-1-oxo-2,2a,3,4-tetrahydro-1*H*-azeto[2,1-d][1,5]benzothiazepine-carboxylic acids (**Va**–**m**) on the surface of potassium carbonate (K_2CO_3).



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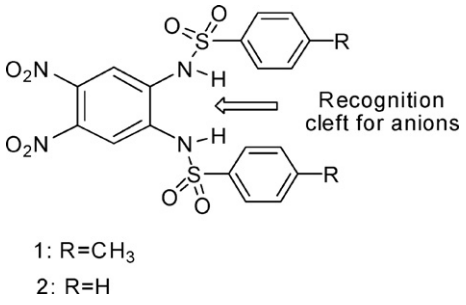
The synthesis and recognition properties of colorimetric fluoride receptors bearing sulfonamide

Xue-Fang Shang[a], Hai Lin[b], Hua-Kuan Lin[a]

[a]*Department of Chemistry, Nankai University, Tianjin 300071, PR China*
[b]*State Key Laboratory of Functional Polymer Materials for Absorption and Separation, Nankai University, Tianjin 300071, PR China*



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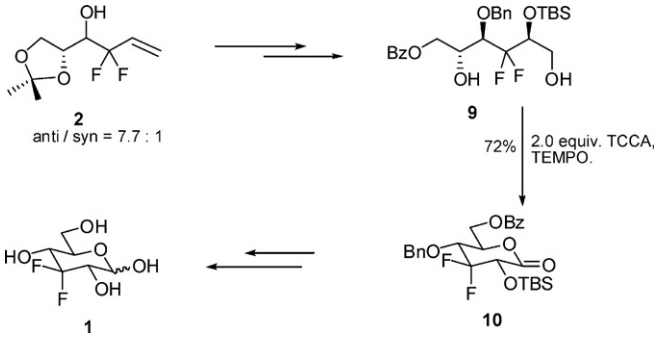
Synthesis of 3-deoxy-3,3-difluoro-D-ribohexose from *gem*-difluorohomoallyl alcohol

Xiu-Hua Xu[a], Zheng-Wei You[a], Xingang Zhang[a], Feng-Ling Qing[a,b]

[a]*Key Laboratory of Organofluorine Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Science, 354 Fenglin Lu, Shanghai 200032, China*
[b]*College of Chemistry and Chemistry Engineering, Donghua University, 2999 North Renmin Lu, Shanghai 201620, China*



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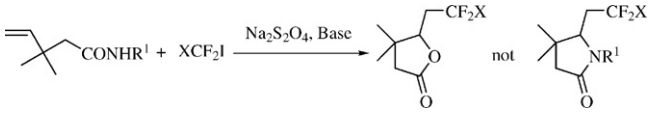
$Na_2S_2O_4$ initiated free radical additions of polyfluoroalkyl halides to 4-pentenamides

Xianjin Yang[a,b], Wenjiao Yuan[a], Song Gu[a], Xueyan Yang[a], Fanhua Xiao[a], Quanshen Shen[a], Fanhong Wu[a,b]

[a]*College of Chemistry and Molecular Engineering, East China University of Science and Technology, Shanghai 200237, China*
[b]*Key Laboratory of Organofluorine Chemistry, Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Shanghai 200032, China*



We described the $Na_2S_2O_4$ initiated free radical additions of fluoroalkyl halides to 4-pentenamides. For polyfluoroalkyl iodides and ethyl iododifluoroacetate, the reaction afforded fluorine-containing γ-butyrolactones as the main products, while reaction of ethyl bromodifluoroacetate only resulted in the addition-debromination product.

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Higher trifluoromethylated derivatives of C_{60}, $C_{60}(CF_3)_{16}$ and $C_{60}(CF_3)_{18}$. Synthesis, structure, and theoretical study

Sergey I. Troyanov[a], Alexey A. Goryunkov[a], Eugenii I. Dorozhkin[a], Daria V. Ignat'eva[a], Nadezhda B. Tamm[a], Stanislav M. Avdoshenko[a], Ilya N. Ioffe[a], Vitalii Yu. Markov[a], Lev N. Sidorov[a], Kerstin Scheurel[b], Erhard Kemnitz[b]

[a]*Chemistry Department, Moscow State University, Leninkie Gory, 119992 Moscow, Russia*
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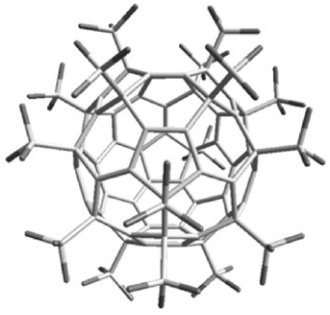

Four highly trifluoromethylated [60]fullerenes, three isomers of $C_{60}(CF_3)_{16}$ and one isomer of $C_{60}(CF_3)_{18}$, have been synthesized, isolated by HPLC, and structurally characterized by X-ray diffraction.

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Thermal chlorofluorination of propyne and propadiene II

Randolph K. Belter

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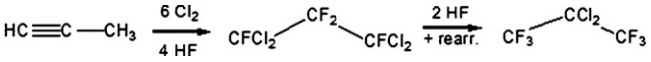
Propyne and propadiene have been previously reported to readily undergo vapor phase catalyzed chlorofluorination at temperatures to 285 °C to form $C_3F_4Cl_4$ mixtures that are primarily $CFCl_2$–CF_2–$CFCl_2$. Continued fluorination at temperatures up to 485 °C produced the rearranged $C_3F_6Cl_2$ isomers CF_3–CCl_2–CF_3 and CF_2Cl–$CFCl$–CF_3.



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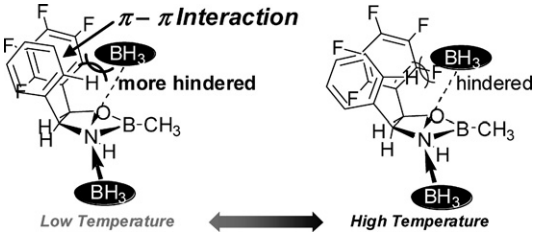
Effect of conformational control of chiral oxazaborolidine by π–π stacking interaction of a pentafluorophenyl group toward asymmetric borane reduction

Toshinobu Korenaga, Koichi Kadowaki, Takashi Sakai

Division of Chemistry and Biochemistry, Graduate School of Natural Science and Technology, Okayama University, Okayama 700-8530, Japan

A pentafluorophenyl group can act as a stereo-controlling group in oxazaborolidine-catalyzed asymmetric borane reduction through intramolecular π–π stacking interaction with a phenyl group.

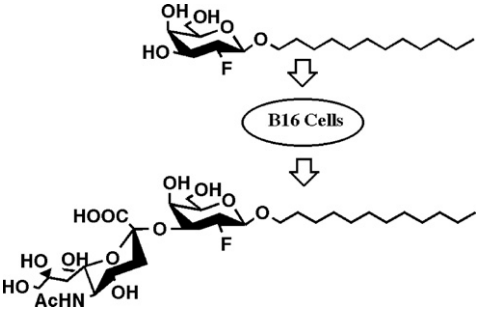


J. Fluorine Chem., 128 (2007) 562

Simple and convenient synthesis of a fluorinated GM4 analogue

Maria Carmelita Kasuya, Ayaka Ito, Kenichi Hatanaka

Institute of Industrial Science, The University of Tokyo, 4-6-1 Komaba, Meguro-ku, Tokyo 153-8505, Japan



J. Fluorine Chem., 128 (2007) 566

Trifluoroacetylation of arylamines using poly-phosphoric acid trimethylsilylester (PPSE)

Simón E. López[a], Yelsi Pérez[a], Jelem Restrepo[a], José Salazar[a], Jaime Charris[b]

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[b]*Laboratorio de Síntesis Orgánica, Facultad de Farmacia, Universidad Central de Venezuela, Caracas, Venezuela*