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J. Fluorine Chem., 130 (2009) 695

The amination of difluoro(diethoxyphosphoryl)acetyl chloride: Facile synthetic route to novel amides containing difluoromethylenephosphonate moiety

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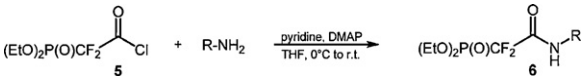
Reaction of an amine and difluoro(diethoxyphosphoryl)acetyl chloride in THF, in the presence of a catalytic amount of DMAP leads to formation of β-keto-α,α-difluoromethylenephosphonate.



J. Fluorine Chem., 130 (2009) 702

Asymmetric oxidative α-fluorination of 2-alkylphenylacetaldehydes with $AgHF_2$ and ruthenium/PNNP catalysts

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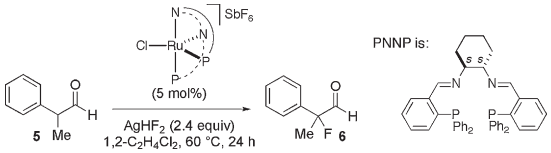
$[RuCl(PNNP)]^+$ (PNNP = (1*S*,2*S*)-*N*,*N*′-bis[*o*-(diphenylphosphino)benzylidene] cyclohexane-1,2-diamine) catalyzes the fluorination of 2-alkylphenylacetaldehydes at the α-position in the presence of silver bifluoride ($AgHF_2$) to give PhC(F)(R)CHO (R = Me, Et, ^{i}Pr, ^{t}Bu) with up to 27% ee and 35% yield.

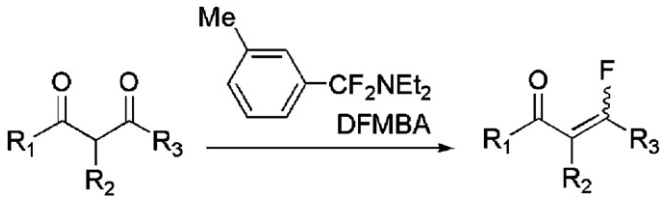


J. Fluorine Chem., 130 (2009) 708

Regioselective synthesis of β-fluoro-α,β-unsaturated ketones by the reaction of β-diketones with DFMBA

Keisuke Sano, Tsuyoshi Fukuhara, Shoji Hara

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



doi:10.1016/S0022-1139(09)00198-5

J. Fluorine Chem., 130 (2009) 714

Preparations and reactions of 2-trifluoromethylketenimines

Toshimasa Katagiri, Michiharu Handa, Hiroyuki Asano, Teppei Asanuma, Tomohiro Mori, Tatsuya Jukurogi, Kenji Uneyama

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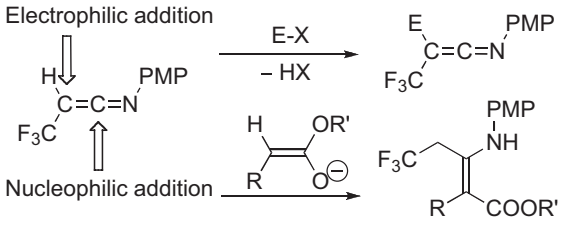
2-Trifluoromethylketenimines are prepared from corresponding acid via imidoyl halides.



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Synthesis of a chitin-based biocomposite for water treatment: Optimization for fluoride removal

Jose L. Davila-Rodriguez[a], Vladimir A. Escobar-Barrios[a], Keiko Shirai[b], Jose R. Rangel-Mendez[a]

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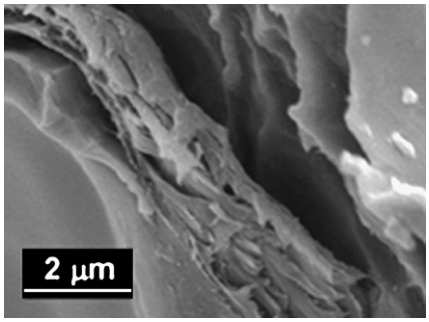
Chitin was physicochemically reinforced by mixing it with a polymer to improve its mechanical and chemical resistance. The optimized mixture, i.e. the optimum chitin-based biocomposite, owns suitable properties for its use in continuous adsorption processes, in order to remove contaminants from water, e.g. fluoride.



J. Fluorine Chem., 130 (2009) 727

Synthesis of 2,2,6,6-tetrafluoro-4-phenylmethylmorpholin-3-ones: A simple approach from fluorinated triethylene glycol

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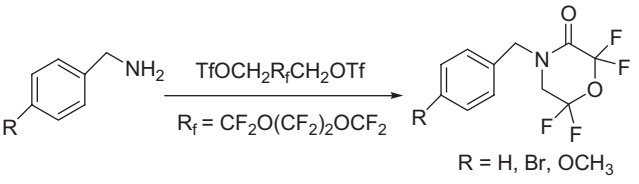
[b]*Department of Chemistry, University of Idaho, Moscow, ID 83844-2343, United States*

A new synthetic routine was developed for the synthesis of 2,2,6,6-tetrafluoro-4-phenylmethyl-morpholin-3-one by a single step combination of fluorinated triethylene glycol di(trifluoromethanesulfonate) and benzylamine. With a fluoroalkane di(trifluoromethanesulfonate), fluorinated phenylmethylpiperidine and phenylmethylazepine were synthesized by reaction of trifluoromethanesulfonic fluoroalkyldily esters and benzylamine.



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Synthesis and characterization of polyimides based on novel isomeric perfluorinated naphthylenediamines

Inna K. Shundrina[a], Tamara A. Vaganova[a], Soltan Z. Kusov[a], Vladimir I. Rodionov[a], Elena V. Karpova[a], Vladimir V. Koval[b], Yulia V. Gerasimova[b], Evgenij V. Malykhin[a]

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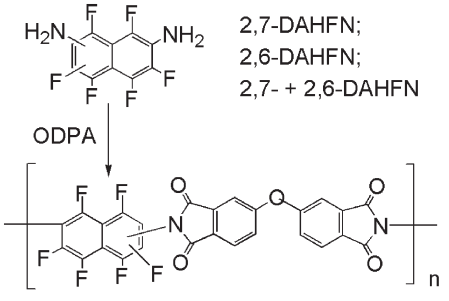
Dependence of PI properties on hexafluoronaphthylene fragment isomerism is characterized.



J. Fluorine Chem., 130 (2009) 742

Shape-selected synthesis, characterization and optical properties of $KMnF_3$ micropolyhedra, microspheres and hollow microspheres

Jie Sheng[a,b], Kaibin Tang[a,b], Dong Su[b], Suyuan Zeng[a,b], Yunxia Qi[a,b], Huagui Zheng[b]

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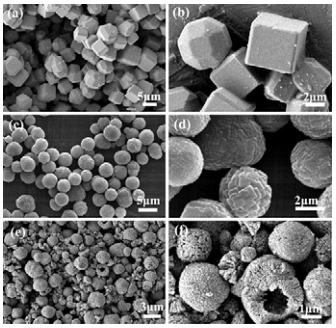
Micropolyhedra, microspheres and hollow microspheres of the cubic $KMnF_3$ were selectively prepared by controllable, hydrothermal method at 120 °C. The variety of polyethylene glycol and dosage of citric acid were demonstrated to be responsible for the shape evolution. It is interesting that these microstructures can be obtained by just modifying one reaction parameter in the reaction.



J. Fluorine Chem., 130 (2009) 749

Studies on fluoride adsorption capacities of amorphous Fe/Al mixed hydroxides from aqueous solutions

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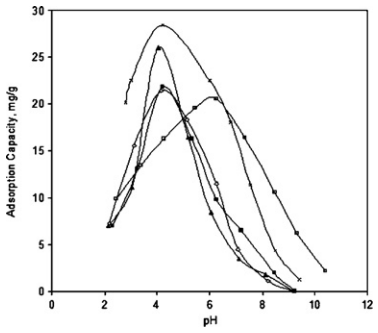
Institute of Minerals and Materials Technology (Formerly RRL), Bhubaneswar 751 013, Orissa, India

The effect of solution pH on fluoride adsorption capacity was studied from 2.5 to 10 pH range. The adsorption process passes through maxima, and the optimum pH range increased with the increase of Al content in the $Fe(OH)_3$ surface.



J. Fluorine Chem., 130 (2009) 755

Synthesis and upconversion luminescence properties of Yb^{3+}/Tm^{3+}-codoped $BaSiF_6$ nanorods

Guofeng Wang[a,b], Weiping Qin[a], Daisheng Zhang[a,c], Guodong Wei[a], Kezhi Zheng[a], Lili Wang[a], Fuheng Ding[a]

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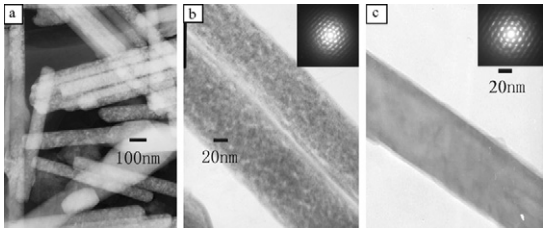
[b]*Department of Chemistry, Tsinghua University, Beijing 100084, PR China*
[c]*College of Physics, Beihua University, Jilin 132011, PR China*

(a) TEM image of $BaSiF_6$ nanorods before aging. (b) Magnified TEM image and electron diffraction pattern of $BaSiF_6$ nanorods before aging. (c) TEM image and electron diffraction pattern of $BaSiF_6$ nanorods aged for 7 days.



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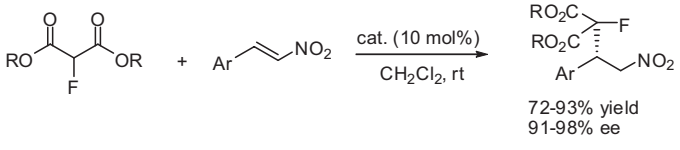
Highly enantioselective conjugate addition of fluoromalonates to nitroalkenes using bifunctional organocatalysts

Bo Kyung Kwon, Sun Mi Kim, Dae Young Kim

Department of Chemistry, Soonchunhyang University, Asan, Chungnam 336-745, Republic of Korea



72-93% yield
91-98% ee

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Synthesis of novel C2-symmetric chiral crown ethers and their application to enantioselective trifluoromethylation of aldehydes and ketones

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Synthesis of novel C2-symmetric chiral crown ethers and their application to enantioselective trifluoromethylation of aldehydes and ketones are discussed. The use of a series of C2-symmetric chiral crown ethers **2** or **3** derived from commercially available (*R*)-1,1′-bi-2-naphthol for the enantioselective trifluoromethylation of 2-naphthyl aldehyde **1a** with (trifluoromethyl)trimethylsilane in the presence of a base was attempted. Iodo-substituted crown ether **2b** was found to be the most effective in the model reaction. Moderate enantioselectivities were observed for the trifluoromethylation of both aryl or alkyl aldehydes and alkyl aryl ketones in 21–44% ees. Although the ees are still improvable, this is the first example of a chiral crown ether-catalyzed enantioselective trifluoromethylation reaction.