



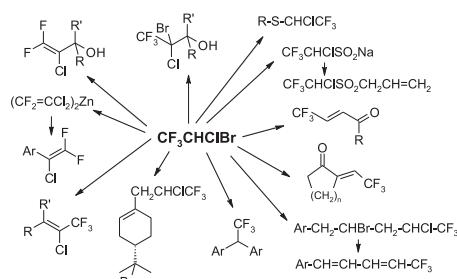
Graphical Abstracts/J. Fluorine Chem. 132 (2011) 501–503

1-Bromo-1-chloro-2,2,2-trifluoroethane (Halothane) as a building block for fluorine compounds

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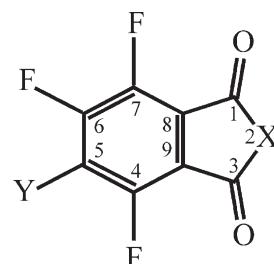
J. Fluorine Chem., 132 (2011) 504

Analysis of ¹⁹F and ¹³C NMR spectra of tetrafluorophthalic anhydride and its derivatives

Igor P. Chuikov, Dmitriy S. Fadeev, Victor I. Mamatyuk, Tamara A. Vaganova, Evgenij V. Malykhin

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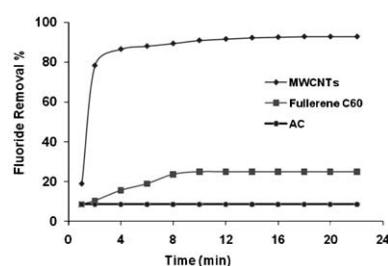
1 X=O	Y=F
2 X=N	Y=F
3 X=CF ₂	Y=F
4 X=O	Y=OH
5 X=O	Y=NH ₂

The defluoridation of drinking water using multi-walled carbon nanotubes

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MWCNTs with high surface area, stability in various conditions are interesting materials for removing fluoride from drinking water. MWCNTs are more powerful than Fullerene C60 and activated charcoal to remove fluoride from aqueous media.

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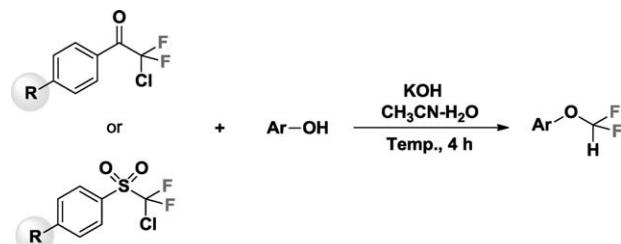
J. Fluorine Chem., 132 (2011) 521

Chlorodifluoromethyl aryl ketones and sulfones as difluorocarbene reagents: The substituent effect

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This paper describes the interesting substitution effect in chlorodifluoromethyl aryl ketones and sulfones as difluoromethylating agents for phenols. It was found that, while the different substitution groups on ketone reagents 1 did not show a remarkable impact on the difluoromethylation reaction, the substitution effect on the sulfone reagents 2 was much more significant. Finally, we figured out that *p*-chlorophenyl chlorodifluoromethyl sulfone **2d** and *p*-nitrophenyl chlorodifluoromethyl sulfone **2h** were among the most powerful difluorocarbene reagents in this category.

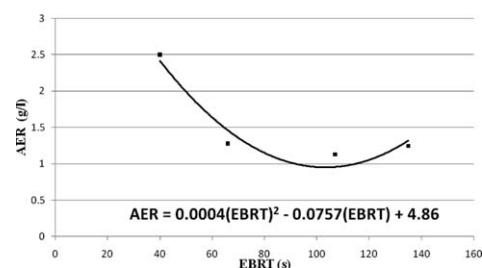


J. Fluorine Chem., 132 (2011) 529

Defluoridation kinetics of 200 °C calcined bauxite, gypsum, and magnesite and breakthrough characteristics of their composite filter

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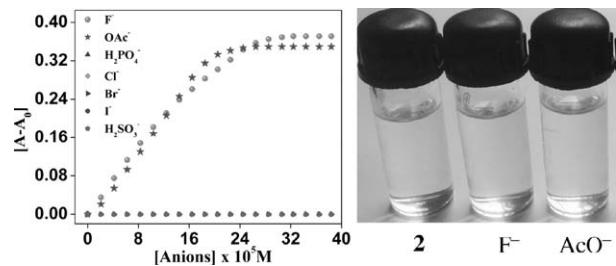
Naked-eye detection of F^- and AcO^- ions by Schiff base receptor

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A Schiff base *N,N'*-bis(5-nitro-salicylidene)-1,2-phenylenediamine (**2**) can-recognized biologically important F^- and AcO^- ion. The recognition properties have been investigated by naked-eye color change (colorless to yellow), followed by UV-vis spectral changes. Predicted stoichiometry of the complexes between **2** and anions based on density functional theory (DFT) level calculations corroborate well with experimental results.



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Synthesis of some fluorine-containing pyridinealdoximes of potential use for the treatment of organophosphorus nerve-agent poisoning

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Acid dissociation constants (pK_a) and second-order rate constants towards sarin (k_{ox^-}) were compared to those of the oxime P2S.

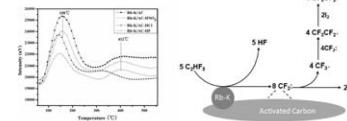
<chem>FC1=CC=CC=C1N=NO</chem>	9.8	<chem>FC1=CC=CC=C1N=NO</chem>	9.1	<chem>CN(C)(C)c1cc(F)cc(C=NO)cc1</chem>	7.8	P2S
pK_a		$k_{\text{ox}^-} \text{ (l mol}^{-1} \text{ min}^{-1})$	1800	310	120	

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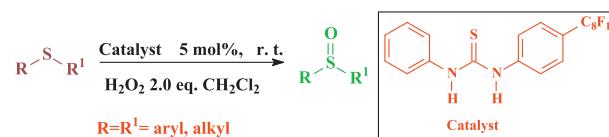
Effects of acid treatment on activated carbon used as a support for Rb and K catalyst for C_2F_5I synthesis and its mechanism

Aiqin Mao^{abc}, Hua Wang^a, Linhua Tan^a, Xiangyang Nin^a, Renming Pan^a^aSchool of Chemical Engineering, Nanjing University of Science and Technology, Nanjing 210094, China^bSchool of Materials Science and Engineering, Anhui University of Technology, Ma'anshan, Anhui 243002, China^cAnhui Key Laboratory of Metal Materials and Processing, Anhui University of Technology, Ma'anshan 243002, Anhui, China

The Rb and K dispersion followed a similar sequence of the total amount of the oxygen-containing surface groups on AC. But no unambiguous correlation was found between the dispersion and basicity of catalyst. The reaction mechanism of C_2F_5I proceeds via CF_2 carbene on the surface of the catalyst, and the high dispersion and moderate basicity of the catalyst Rb-K/AC-HCl helped to enhance the catalytic activity for C_2F_5I synthesis by the reaction of C_2HF_5 , I_2 and O_2 .

*J. Fluorine Chem.*, 132 (2011) 554

A recyclable fluorous thiourea organocatalyst for the chemoselective oxidation of sulfides

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As a kind of organocatalyst, 1-[4-(perfluorooctyl)phenyl]-3-phenylthiourea was employed to the chemoselective oxidation of sulfides in the presence of 30% H_2O_2 . A variety of diaryl, dialkyl, alkyl aryl sulfides could be oxidized to sulfoxide under the mild condition. The catalyst could be easily recovered by fluorous solid-phase extraction for reuse.