



Graphical Abstracts/J. Fluorine Chem. 191 (2016) iv–viii

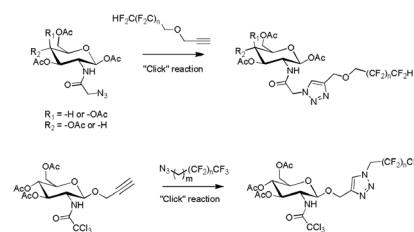
Glucosamine- and galactosamine- based monosaccharides with highly fluorinated motifs

Joanna Tomaszewska, Karolina Kowalska, Katarzyna Koroniak-Szejn

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● Efficient synthetic route towards monosaccharides with highly fluorinated long chain motifs, as a potential building blocks. ● The method is cost-effective, easy to be implemented, selective and easily scalable. ● The syntheses are based on the use of commercially available and reasonable in price starting materials and reagents.

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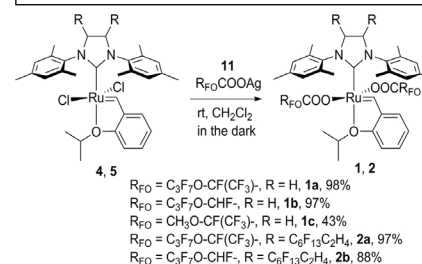


Synthesis and catalytic activity of ruthenium complexes modified with chiral racemic per- and polyfluorooxaalkanoates

Pavla Lipovská^a, Lucie Rathouská^a, Ondřej Šimůnek^a, Jan Hošek^a, Viola Kolaříková^a, Markéta Rybáčková^a, Josef Cvačka^b, Martin Svoboda^b, Jaroslav Kvíčala^a^aDepartment of Organic Chemistry, University of Chemistry and Technology, Prague, Technická 5, 166 28 Prague 6, Czech Republic^bInstitute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic, v.v.i., Flemingovo nám. 2, 166 10 Prague 6, Czech Republic

● Racemic silver per- or polyfluoropolyoxaalkanoates gave with Hoveyda-Grubbs precatalyst light fluororous ruthenium complexes. ● Increased steric hindrance in fluoro(oxa)alkanoates-modified ruthenium complexes decreased the catalytic activity in RCM. ● Prepared complexes with less steric hindrance were active in RCM forming tetrasubstituted double bond.

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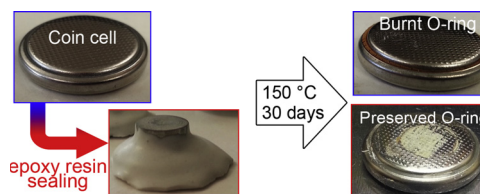
Modified coin cells to evaluate the electrochemical properties of solid-state fluoride-ion batteries at 150 °C

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Sorbonne Universités, UPMC Univ Paris 06, CNRS, UMR 8234, PHENIX, F-75005 Paris, France

● A modified coin cell setup, adapted to the study of solid-state fluoride-ion batteries, is proposed. ● The sealing of the coin cell is verified by electrochemical tests using composites made of Bi and BiF₃. ● The deposition of a high-temperature epoxy resin allows the coin cell to remain hermetical after 30 days at 150 °C.

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Fluoro-curcuminoids and curcuminoid-BF₂ adducts: Synthesis, X-ray structures, bioassay, and computational/docking study

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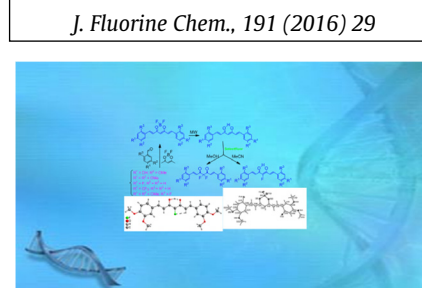
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● Synthesis of α -fluorinated curcuminoids by direct mono- and difluorination. ● Synthesis of ring fluorinated curcuminoids. ● Isolation and characterization of curcuminoid-BF₂ adducts. ● X-ray structure analysis. ● Bioassay and computational docking study.



ortho-Fluorobenzanilides and *ortho*-fluorothiobenzanilides: Molecular conformations and crystal packing

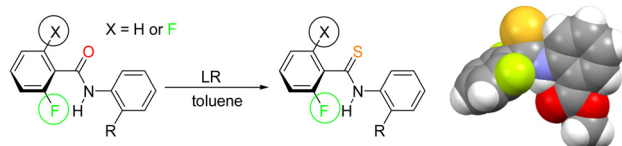
Teresa Olszewska^a, Jarosław Chojnacki^b, Barbara Wicher^c, Maria J. Milewska^a

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● Role of *ortho* fluorine substituent in the crystal structures of *o*-fluorobenzanilides. ● Synthesis of two new 2,6-difluoro(*N*-phenyl) thiobenzanilides was performed. ● Weak C_{Ar}-F...H-C_{Ar} or C_{Ar}-F...F-C_{Ar} interactions are observed in the molecular self-assembly in the crystals lattices.



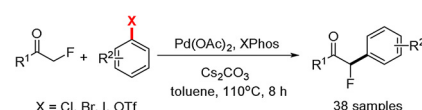
Palladium-catalyzed direct mono- α -arylation of α -fluoroketones with aryl halides or phenyl triflate

Jun Zhou^a, Xiang Fang^a, Tongle Shao^a, Xueyan Yang^a, Fanhong Wu^{a,b}

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● Palladium catalyzed Nigishi-type α -arylation of α -fluoroketones with a broad range of aryl halides or phenyl triflate. ● Pd(OAc)₂ as catalyst, Xphos as ligand and Cs₂CO₃ as mild base play the important role. ● The desired monoarylated α -fluoroketones were obtained in good yields. ● A practical synthetic strategy to potentially bioactive fluorocarbonyl compounds.



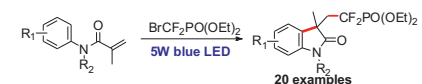
Synthesis of difluoromethylenephosphonated oxindoles through visible-light-induced radical cyclization of *N*-arylacrylamides

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● Visible-light-induced difluoromethylenephosphonation of *N*-arylacrylamides. ● Two new C-C bonds were formed via a sequential radical addition and cyclization process. ● The reaction afforded difluoromethylenephosphonated oxindoles with good functional group tolerance.



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