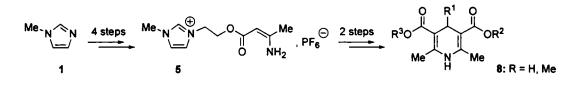
Heterocycl. Commun. 2 (2009) 91-96

Synthesis and application of ionic liquid phase-supported β -aminocrotonate for access to asymmetric 1,4dihydropyridines.

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Heterocycl. Commun. 2 (2009) 97-104

Multiple Cobalt Phosphate Ring System from 1-Alkyl-3-Methylimidazolium Tetrafluoroborate Ionic Liquids

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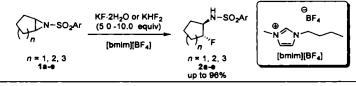
Open-framework phosphate $Co_7(PO_4)_2(HPO_4)_4$ with a multiple ring system was ionothermally synthesized by using 1-alkyl-3methylimidazolium tetrafluoroborates as solvent. The crystals of $Co_7(PO_4)_2(HPO_4)_4$ were large enough to do single crystal Xray diffraction analysis, which crystallize in the space group P-1 (No.2), with cell parameters of a = 6.471(3) Å, b = 7.881(3)Å, c = 9.488(4) Å, $a = 104.288(6)^\circ$, $\beta = 109.062(5)^\circ$ and $\gamma = 101.345(5)^\circ$. The systematic increase in alkyl chain length from 2 to 4 carbon atoms in 1-alkyl-3-methylimidazolium tetrafluoroborates was investigated in this ionothermal synthesis system. The effect of different anions, such as Cl⁻, Br⁻ and BF₄⁻, on the synthesis result will also be presented in this paper.

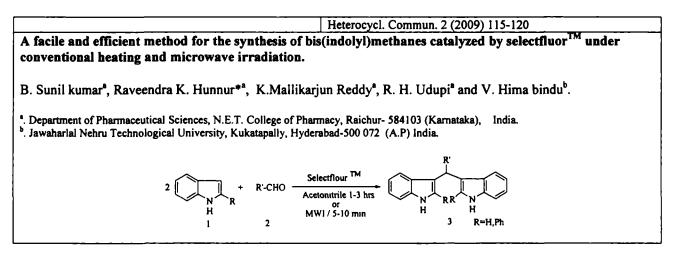
Heterocycl. Commun. 2 (2009) 105-113 Ionic liquids as media for nucleophilic ring opening fluorination of aziridines

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We have developed an efficient methodology for nucleophilic ring opening fluorination of aziridines by $KF \cdot 2H_2O$ or KHF_2 in an ionic liquid without any external sources, which resulted in a convenient route to β -fluoro amines. The ionic liquid acts not only as a solvent but also as a phase transfer catalyst in the reaction.



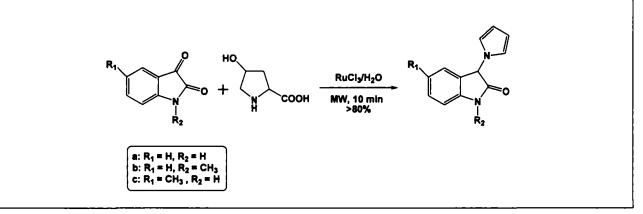


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Microwave-Assisted Ruthenium Trichloride-Catalyzed Synthesis Of Pyrrole Fused With Indole System In Water

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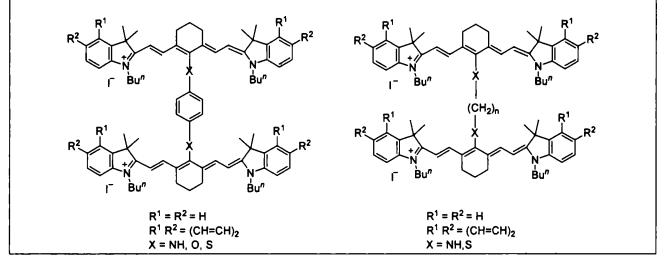


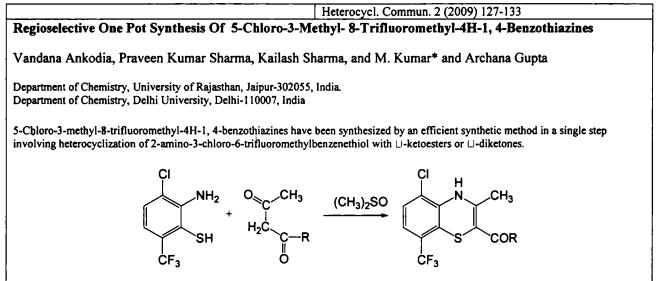
Heterocycl. Commun. 2 (2009) 123-126 Facile Synthesis Of Dimeric Heptamethine Cyanine Dyes Containing A Linker At The Meso Positions

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Abstract: The synthesized dyes contain 1-butyl-3,3-dimethyl-3*H*-indolium or benzo[*e*] analogs as the terminal subunits and diverse chains linking the central meso positions of the individual chromophores. The dimeric dyes show absorption in the red (> 600 nm) or near-infrared (> 700 nm) regions.





Heterocycl. Commun. 2 (2009) 135-140 Regioselective Synthesis Of Azabicycloadducts Derived From Benzo[B]Thiophene -2, 3 -Dione and Pipecolinic Acid

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ABSTRACT

A simple and efficient method for the synthesis of novel spiropyrrolidines has been accomplished by regioselective 1, 3-dipolar cycloaddition reactions of azomethine ylide generated by benzo[b]thiophene-2,3-dione and piperidine 2-carboxylic acid in good yield. Molecular orbital calculations have been performed to investigate the regioselectivity of the cycloaddition process.

