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Tetrahedron Letters

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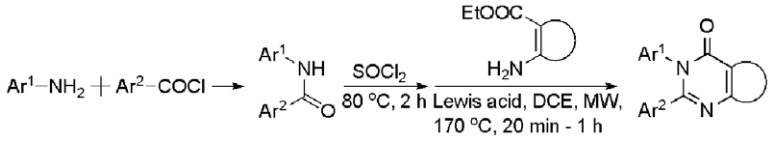
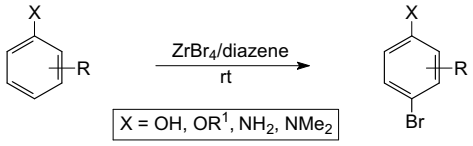
Contents

COMMUNICATIONS

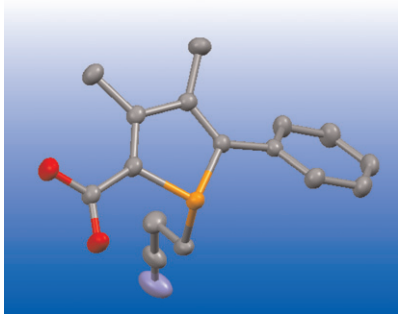


An expedient one-pot synthesis of fused bicyclic 2,3-diaryl-pyrimidin-4(3*H*)-ones is described. The key step is a Lewis acid assisted cyclization reaction.

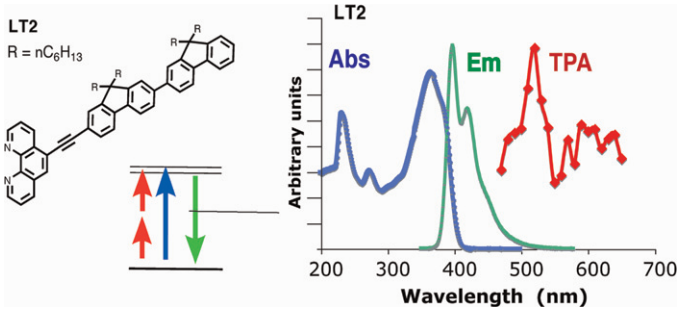


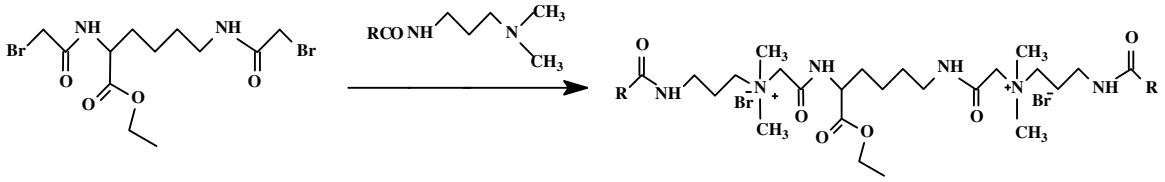
A regioselective method for the bromination of phenols, ethers and anilines using a $ZrBr_4$/diazene mixture is described.

The synthesis and coordination chemistry of a 2-carboxyphosphole, suitable for introduction in a polypeptide, is described.

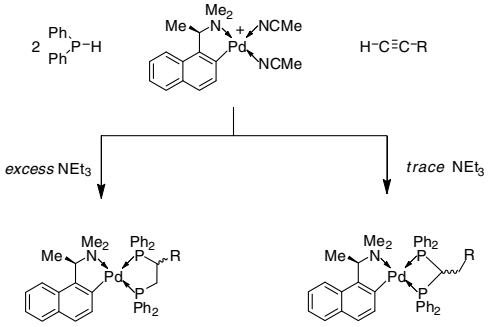


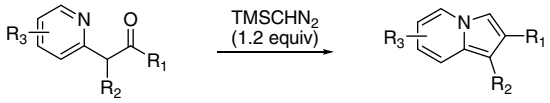
Synthesis, linear and nonlinear (TPA) optical properties of fluorenyl substituted-1,10-phenanthroline ligands are described.



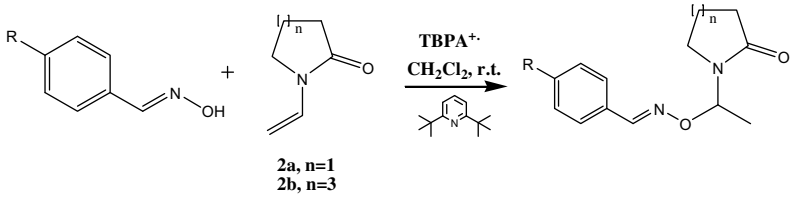


A series of novel quaternary ammonium gemini surfactants of L-lysine containing ester group were synthesized with *N*,*N*′-bisbromoacetyl-L-lysine ethyl ester and fluorinated or hydrocarbon fatty acid (3-dimethyl amino-propyl) amides. The pended ester group provides a reactive site for incorporating the surfactant into polymers.

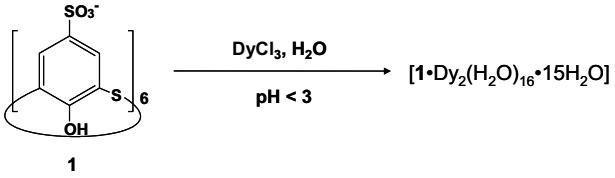




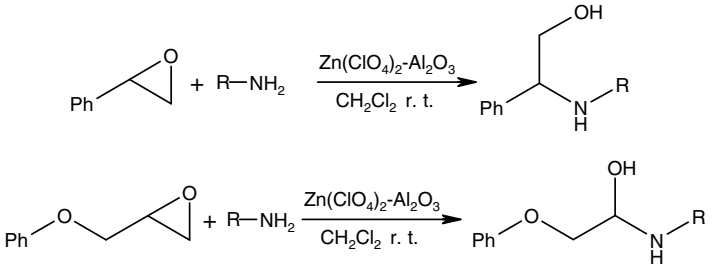
A mild and convenient synthesis of substituted indolizines from readily available 2-(pyridin-2-yl)acetyl derivatives using (trimethylsilyl)diazomethane is described. The extension of this methodology to the synthesis of indole from 2-aminobenzaldehyde is also reported.

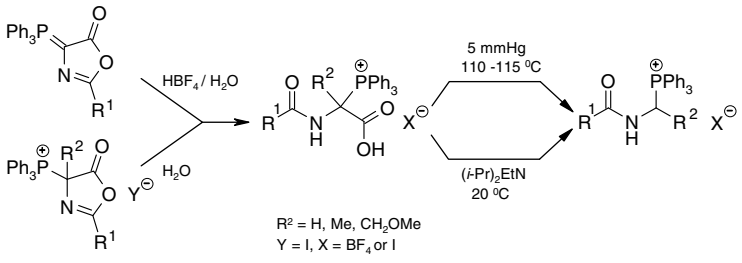


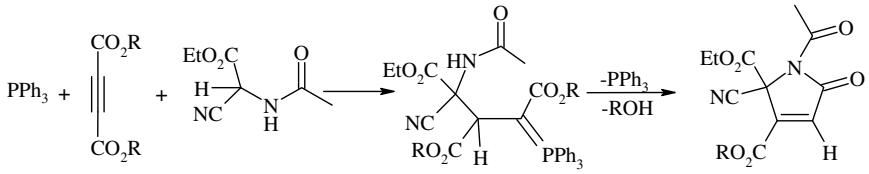
Radical cation promoted O-alkylation of oxime with *N*-vinyllactam was achieved under base free condition by using catalytic tris(4-bromophenyl)aminium cation radical ($TBPA^{+}SbCl_6^{-}$) as an initiator to produce the corresponding oxime ether in high yields.

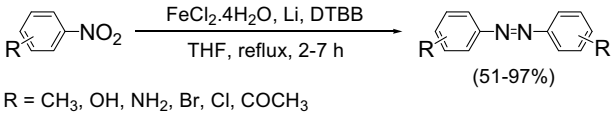


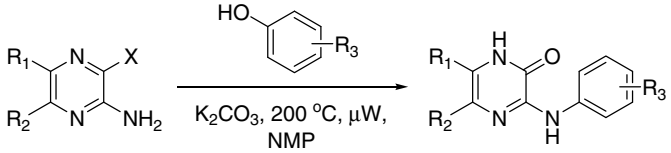
p-Sulfonatothiacalix[6]arene (**1**) complex with two octa-aqua dysprosium metal cations and 15 water molecules was examined by single-crystal X-ray diffraction studies. The complex showed a supramolecular assembly because there are π–π stacking and hydrogen bonding interactions among host **1**, aquated dysprosium cations and water molecules.

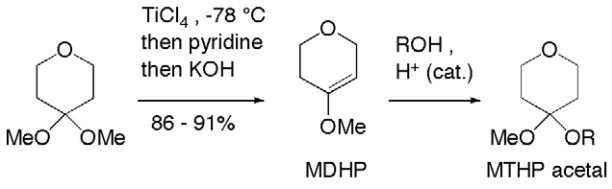




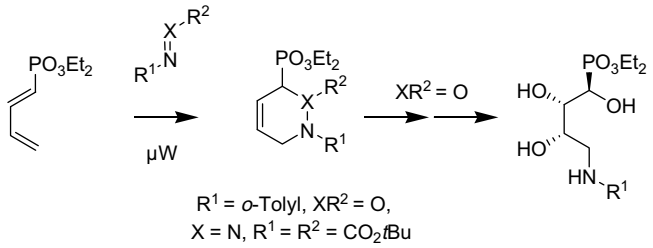




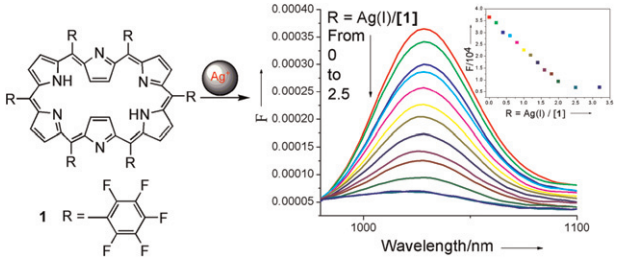


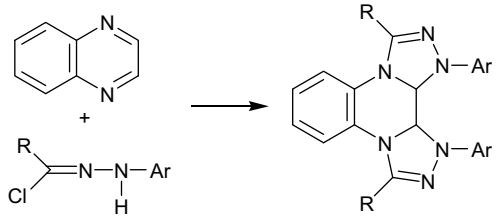


Methoxydihydropyran (MDHP) is efficiently prepared permiting ready access to 4-methoxytetrahydropyran-4-yl (MTHP) acetal protection for alcohols.

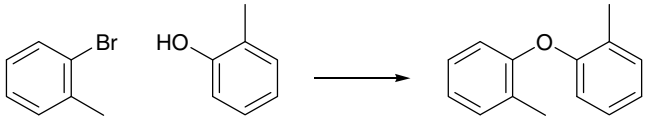


An expanded porphyrin **1** can act as a chemodosimeter for Ag^{+} ions via near-infrared luminescence above 900 nm, a region that is free from optical interference in the visible range.

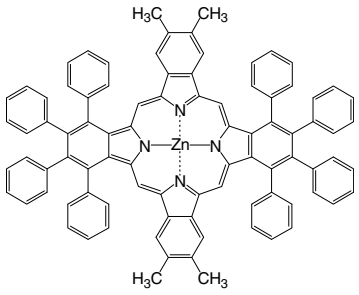


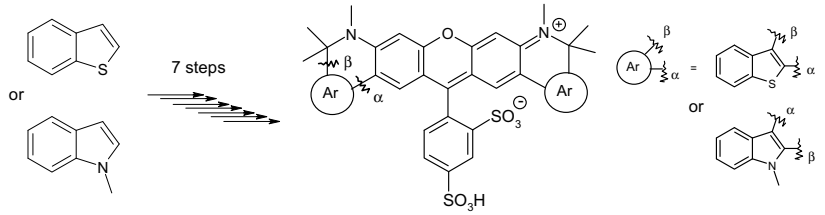


New derivatives of the heterocyclic system 1,12,12a,12b-tetrahydrobis-1,2,4-triazolo[4,3-*a*:3′,4′-*c*]quinoxaline of pharmaceutical interest have been synthesized by 1,3-dipolar cycloaddition of arylnitrilimines to quinoxalines.

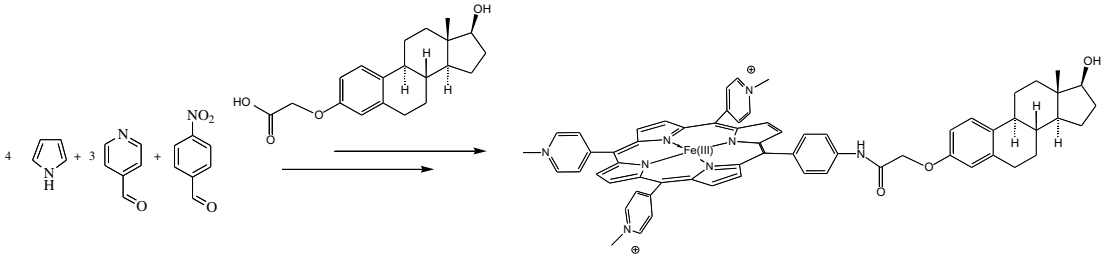


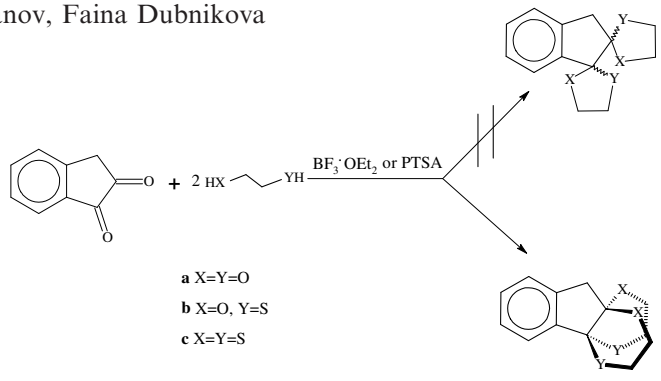
A novel Cu(I)/1-alkylimidazole catalyst system and its application in the C–O coupling reaction of aryl bromides with substituted phenols is described.

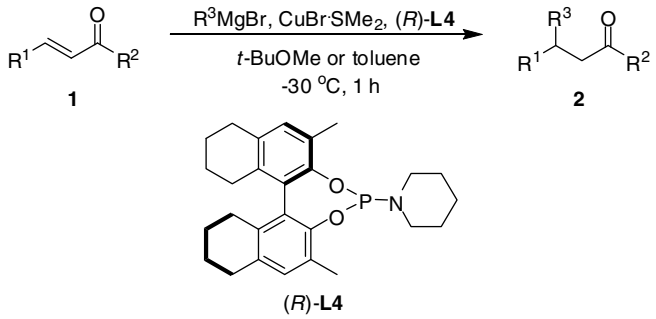


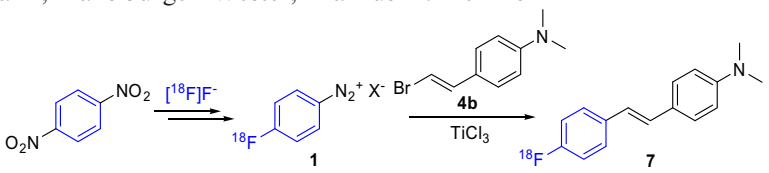


Benzo[*b*]thiophene and indole containing rhodamine dyes were synthesized using a Heck-type coupling and a Pictet–Spengler reaction.

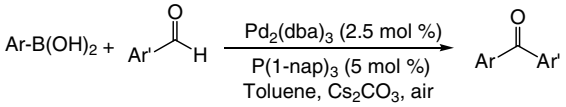








Radical [^{18}F]fluoroarylation of bromostyrene **4b** with 4-[^{18}F]fluorobenzenediazonium salt **1** provides a new, highly efficient access to stilbene **7**, which is an important lead structure of probes for Alzheimer plaque imaging by positron emission tomography (PET).



*Corresponding author
(i)+ Supplementary data available via ScienceDirect

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