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Graphical Abstracts

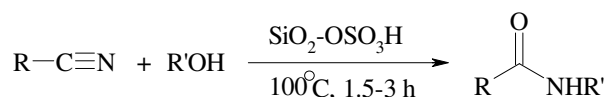
Silica sulfuric acid: an eco-friendly and reusable catalyst for synthesis of amides via Ritter reaction

pp 76-79

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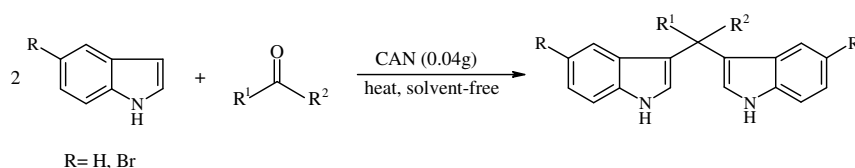


Solvent-free synthesis of bis(indolyl)methanes catalyzed by CAN

pp 80-83

Majid M. Heravi,^{*} Khadijeh Bakhtiari,^{*} and Azadeh Fatehi

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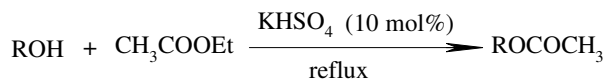


Selective transesterification of alcohols in the presence of amines and phenols catalyzed by KHSO₄

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One-Pot reductive amination of carbonyl compounds and reductive N-alkylation of amines with zirconium borohydride–piperazine complexes under mild conditions

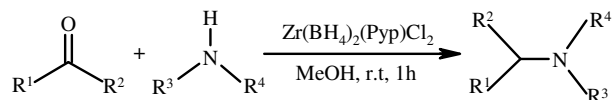
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Mahmood Tajbakhsh,^{a*} Heshmatollah Alinejad,^b Maasoumeh Azarpira,^b Maasoumeh Hosseinzadeh,^a Hasan Sadeghifar^a and Samad Khaksar^c

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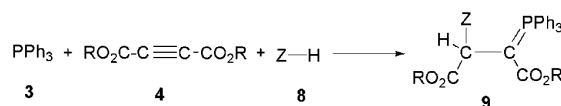
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A facile synthesis of diastereoisomeric stable 1,4-diionic and also phosphorus ylides compounds containing sulfur through the reaction between 1,3-dicarbonyl compounds with activated acetylenic esters in the presence of triphenylphosphine

Malek Taher Maghsoodlou, Reza Heydari, Sayyed Mostafa Habibi Khorassani,^{*} Mahmoud Nassiri, Jaber Salehzadeh, Sakineh Mollae Poor and Mohammad Amin Kazemian

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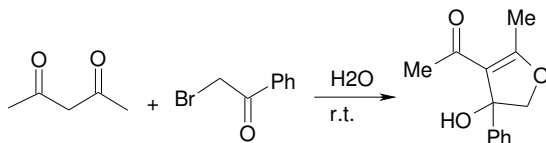
9	Z	R	%Yield
a		Me	80
b		^t Bu	85
c		Me	90

Synthesis of highly functionalized dihydrofurans via multicomponent reaction

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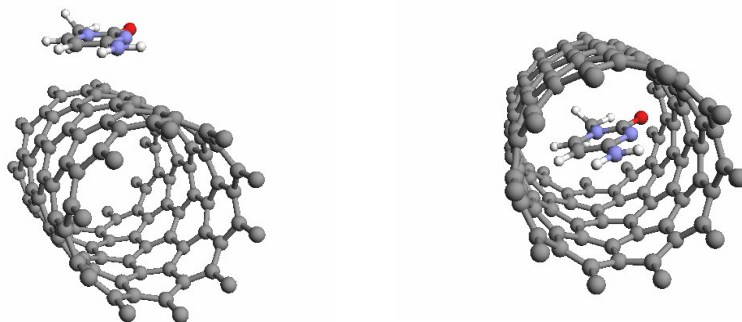
Interaction of (10, 0) single-walled carbon nanotubes with nuclei acid bases: a first-principles study

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The interaction between nucleic acid bases and a (10, 0) single-walled carbon nanotube (CNT) were investigated through calculations within density functional theory based treatments. It has been found that the guanine base adsorption is bound stronger to the outer surface of nanotubes in comparison to the other bases, consistent with the recent theoretical studies. In this work the insertion of nucleic acid bases inside the nanotubes has been also investigated for the first time. Our calculations reveal that the cytosine base exhibits a stronger binding to the inner surface of nanotubes side-wall. Furthermore, when nucleic acid bases were inserted inside the tube, the nanotube shape was deviated from cylinder.



Lactonization of various diols, using transition metal-substituted Keggin Catalysts [PW11MO40]⁷⁻, (M= Co(II), Ni(II), Cu(II), Zn(II))

pp 110-117

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Potassium salts of the monosubstituted Keggin polyoxometalates, [PW11MO40]⁷⁻, (M= Co(II), Ni(II), Cu(II), Zn(II)), were used as catalysts for lactonization of 1,4-butane diol, 1,6-hexane diol and 1,2-benzene dimethanol, in the presence of hydrogen peroxide as an oxidant. The effects of various parameters such as amount of the oxidant and diol, solvent type, temperature and reaction time have been studied. The results show that [PW11CoO40]⁷⁻ as catalyst in chloroform produce the highest yield of lactone.

Solvent-free synthesis of 14-aryl(alkyl)-14H-dibenzo[a,j]xanthenes, 9-aryl(alkyl)-3,3,6,6-tetramethyl-3,4,5,6,7,9-hexahydro-2H-xanthene-1,8-dione and 2-Amino-5,6,7,8-tetrahydro-5-oxo-4-aryl-7,7-dimethyl-4H-benzo-[b]-pyran derivatives using InCl₃ as catalyst

pp 118-126

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