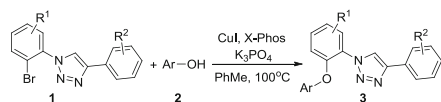


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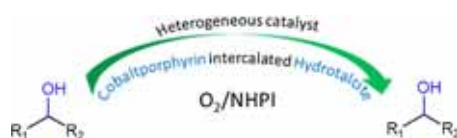
Rapid Communication



1,2,3-Triazole N(2)-coordinated C–O coupling: Access to *ortho* aryloxy 1,4-diaryl 1,2,3-triazoles

Yaowen Liu, Fen Zhao, Haohua Zhou, Kai Xie and Yubo Jiang 289–294

CuI-catalyzed selective Ullmann C–O couplings of 1,4-disubstituted 1,2,3-triazole bromides with phenols were achieved through the coordination of N(2) atom in triazole. The *ortho* C–Br bond in N(1) of aryl can be selectively coupled with phenols, while other C–Br bonds remain inert, generating *ortho*-aryloxy 1,4-diaryl 1,2,3-triazoles.

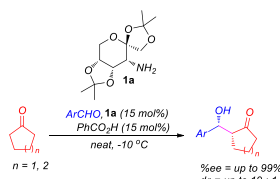


Aerobic Oxidation of Alcohols to Carbonyl Compounds Catalyzed by N-Hydroxyphthalimide (NHPI) Combined with CoTPP-Zn₂Al-LDH

Weiyu Zhou, Dongwei Chen, Aijun Cui, Junfeng Qian, Mingyang He and Qun Chen 295–299

A catalytic system for the aerobic oxidation of alcohols by N-hydroxyphthalimide (NHPI) combined with heterogeneous cobalt porphyrin intercalated hybrid catalyst (CoTPP-Zn₂Al-LDH) has been developed. The catalytic system can effectively catalyze the oxidation of alcohols with good stability and tolerance for varied substrates.

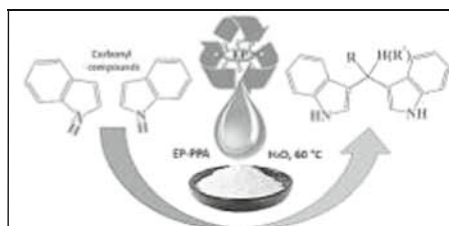
Regular Articles



Monofunctional primary amine: A new class of organocatalyst for asymmetric Aldol reaction

Khiangte Vanlaldinpuia, Porag Bora and Ghanashyam Bez . . . 301–312

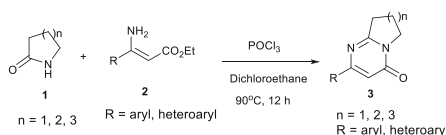
A new class of aminocatalysts with a primary amine as the only catalytically active functional group was developed for catalytic asymmetric aldol reaction of cyclohexanone/cyclopentanone with various aryl aldehydes in the presence of benzoic acid as an additive at -10°C under neat conditions.



Green and efficient synthesis of aryl/alkylbis(indolyl)methanes using Expanded Perlite-PPA as a heterogeneous solid acid catalyst in aqueous media

Marzieh Esmailpour, Batool Akhlaghinia and Roya Jahanshahi 313–328

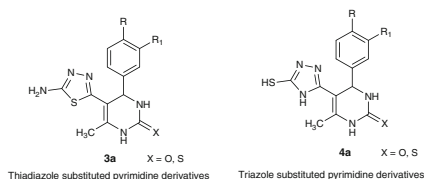
The catalytic activity of Expanded Perlite- Polyphosphoric acid (EP-PPA) as a novel, efficient, recyclable and eco-benign heterogeneous catalyst was investigated for the green and rapid synthesis of aryl/alkyl bis(indolyl)methanes.



One-pot synthesis of 2-aryl-1,2-fused pyrimidones

Samikannu Ramesh, Pon Saravanakumar, Ramasamy Duraisamy, Arvind Mathur and Pirama Nayagam Arunachalam 329–333

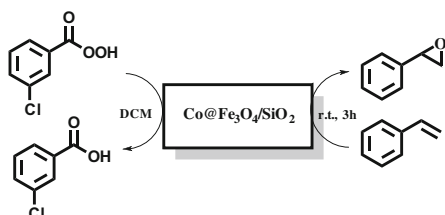
Synthesis and characterization of twenty-five 2-aryl-1,2-fused pyrimidone derivatives are reported. The results suggested that the methodology is widely applicable except for cyclobutyl fused systems. This method gives better yield and more versatile than the method of condensing aminopyrrolidines with the beta keto esters.



Synthesis and comparing the antibacterial activities of pyrimidine derivatives

B Andrews, K Komathi and S Mohan 335–341

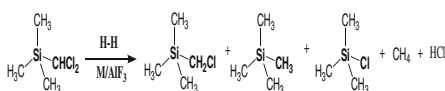
A series of ten derivatives of 5-(5-amino-1,3,4-thiaziazole-2-yl)-3,4-dihydro-6-methyl-4-phenylpyrimidin-2(1*H*)-one and ten derivatives of 3,4-dihydro-5-(5-mercapto-4*H*-1,2,4-triazol-3-yl)-6-methyl-4-phenyl pyrimidin-2(1*H*)-one have been synthesized and structures characterized. Among the synthesized derivatives, triazole substituted compounds have shown higher antibacterial inhibition when compared to the thiaziazole derivatives.



Highly efficient epoxidation of alkenes with m-chloroperbenzoic acid catalyzed by nanomagnetic Co(III)@Fe₃O₄/SiO₂ salen complex

Ali Allahresani and Mohammad Ali Nasser 343–352

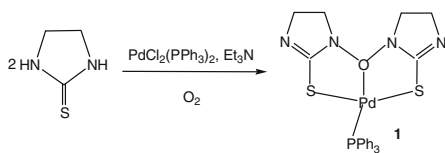
A facile and efficient method for the epoxidation of alkenes in the presence of catalytic amount of Co(III) complex supported on Fe₃O₄/SiO₂ NPs is reported. Catalyst was characterized by transmission electron microscopy, fourier transform infrared spectroscopy, powder x-ray diffraction, thermogravimetric analysis and ultraviolet–visible spectroscopy.



Hydrodechlorination of (CH₃)₃SiCHCl₂ over Pd, Ni, Co and Fe supported on AlF₃

Rateb Hina, Isam Arafa and Omar Ennab 353–358

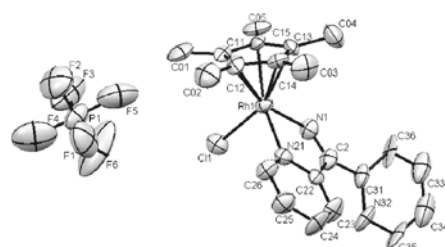
Gas phase hydrodechlorination process of Me₃SiCHCl₂ was studied in a flow reactor at 200°C using a 2% metal loading (w/w) of four different monometallic catalysts (Pd/AlF₃, Ni/AlF₃, Co/AlF₃ and Fe/AlF₃). The XPS technique showed that Ni^{II}, Fe^{III} and Co^{III} exist as oxides. The major products in the process of Me₃SiCHCl₂ were identified to include Me₃SiCH₂Cl, Me₃SiCl, and Me₄Si.



Transformation of 1,3-imidazolidine-2-thione (SC₃H₆N₂) into (SC₃H₄N₂-O-N₂C₃H₄S)²⁻ dianion chelated in [Pd{κ³-S, O, S-(SC₃H₄N₂-O-N₂C₃H₄S)}(PPh₃)]·CH₃CN

Vinny Mehra, Amreen Kaur Bains, Geeta Hundal and Tarlok S Lobana 359–363

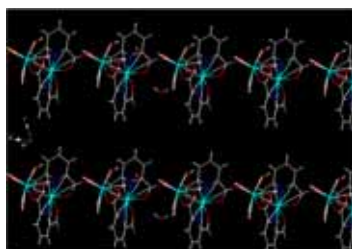
The activation of N-H bonds of imidazolidine-2-thione (SC₃H₆N₂) on reaction with [PdCl₂(PPh₃)₂] in the presence of triethyl amine base has led to unexpected transformation into the oxo-bridged dianion (SC₃H₄N₂-O-N₂C₃H₄S)²⁻ coordinated complex: [Pd{η³-S,O,S-(SC₃H₄N₂-O-N₂C₃H₄S)}(PPh₃)]·CH₃CN.



Iridium(III) and Rhodium(III) compounds of dipyriddy-N-alkylimine and dipyriddy-NH-ketimine: Spectral characterization and crystal structure

Keisham S Singh, Peng Wang, Niteen A Narkhede and Yurij Mozharivskiy. 365–372

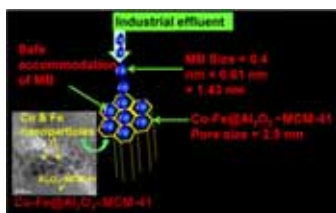
Pentamethylcyclopentadienyl iridium(III) and rhodium(III) complexes containing dipyriddy-N-alkylimine and dipyriddy-NH-ketimine ligands of formulation [(η⁵-C₅Me₅)M{(C₅H₄N)₂C=NR}Cl]PF₆ and [(η⁵-C₅Me₅)M{(C₅H₄N)₂C=NH}Cl]PF₆ were synthesized and characterized on the basis of spectroscopic data. Solid state structure of one representative NH-ketimine compound [**6**]PF₆ has been determined by X-ray crystallography.



Synthesis, characterization and crystal structure of new nickel molybdenum complex with the pyridine dicarboxylic acid ligand: Novel precursors for nickel molybdate nanoparticles

Hamid Emadi, Bahareh Tamaddoni Jahromi and Ali Nemati Kharat 373–380

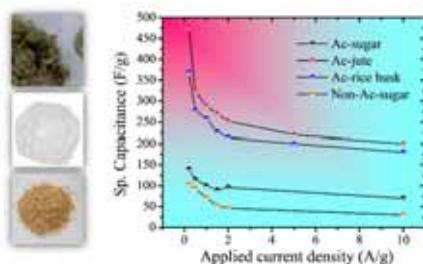
A novel nickel molybdenum complex with the 2,6-pyridine dicarboxylic acid ligand was synthesized. The results confirmed that monodispersed nanoparticles of NiMoO₄ were obtained by thermal decomposition of the complex at 450°C for 8 h.



Sol-gel-cum-hydrothermal synthesis of mesoporous Co-Fe@Al₂O₃-MCM-41 for methylene blue remediation

Amaresh C Pradhan, Animesh Paul and G Ranga Rao 381–395

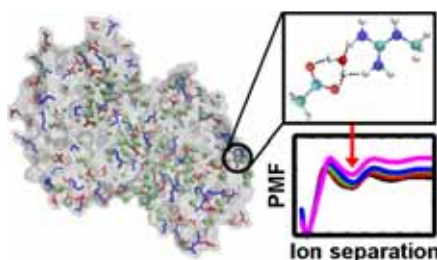
Bimetallic Co-Fe@Al₂O₃-MCM-41 material was identified as the best adsorbent for methylene blue which safely accommodates the dye on its suitable mesoporous structure.



Biomass derived graphene-like activated and non-activated porous carbon for advanced supercapacitors

Kasinath Ojha, Bharat Kumar and Ashok K Ganguli 397–404

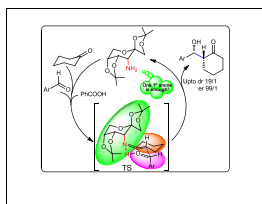
Biomass (sugar, rice husk and jute) derived carbon nanostructures were shown to exhibit much higher specific capacitance than that of graphene oxide. Pseudocapacitance due to quinone-type functionalities in jute and rice husk-derived carbons were evident and contributed significantly to the overall specific capacitance.



Temperature Dependence of the Stability of Ion Pair Interactions, and its Implications on the Thermostability of Proteins from Thermophiles

Swetha Bikkina, Agastya P Bhati, Siladitya Padhi and U Deva Priyakumar 405–414

The role of salt bridges in stabilizing thermophilic proteins is elucidated in atomistic detail using free energy calculations. The association of salt bridges is more favorable at high temperatures compared to physiological temperatures, with bridging water molecules facilitating the association by lowering the desolvation penalty for the process.



Cover picture: Monofunctional primary amine for stereoselective aminocatalysis. For details, see the paper by Khiangte Vanlaldinpuia *et al.* (pp. 301–312)