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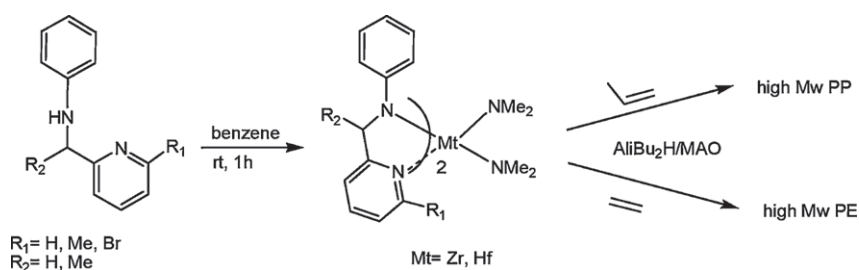
Articles

Liana Annunziata, Gang Li, Claudio Pellecchia

Journal of Molecular Catalysis A: Chemical 337 (2011) 1

Group 4 metal bis(chelate) complexes of 2-anilidomethylpyridine ligands: Synthesis and catalytic activity for olefin polymerization

► New amidopyridine ligands and their corresponding Zr(IV) and Hf(IV) complexes. ► More or less fluxional solution structure depending on the substituents. ► Multi-site catalytic systems for the polymerization of ethylene and propene.



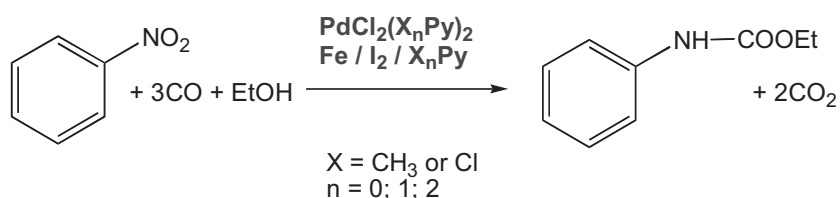
Agnieszka Krogul, Jadwiga Skupińska, Grzegorz Litwinienko

Journal of Molecular Catalysis A: Chemical 337 (2011) 9

Catalytic activity of PdCl₂ complexes with pyridines in nitrobenzene carbonylation

► Carbonylation of nitrobenzene and nitrobenzene/aniline catalyzed by PdCl₂(X_nPy)₂ complexes is investigated. ► The substituent effect in X_nPy on catalytic activity of PdCl₂(X_nPy)₂ is studied. ► A detailed mechanism of catalytic carbonylation of nitrobenzene is proposed.

One-Pot Catalytic Synthesis of Carbamates

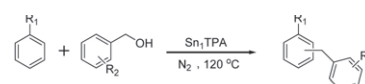


Ch. Ramesh Kumar, K.T. Venkateswara Rao, P.S. Sai Prasad, N. Lingaiah

Journal of Molecular Catalysis A: Chemical 337 (2011) 17

Tin exchanged heteropoly tungstate: An efficient catalyst for benzylation of arenes with benzyl alcohol

► Sn exchange heteropoly tungstate is efficient catalysts for benzylation of arenes. ► The activity of the catalyst depends on the generation of Lewis acidity due to Sn. ► The catalytic depend on the amount of Sn exchanged with heteropoly tungstate. ► The catalyst is active for benzylation irrespective of the nature of arene and alcohols.



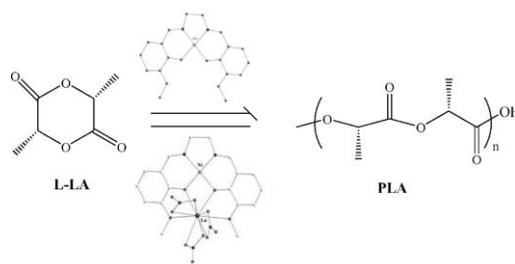
An efficient tin-exchanged 12-tungstophosphoric acid catalyst is reported for the liquid phase benzylation of arenes using benzyl alcohol under mild conditions. The catalyst exhibited high activity with excellent yield with in short reaction time.

**Wen-Juan Jin, Li-Qin Ding, Zeng Chu,
Lei-Lei Chen, Xing-Qiang Lü, Xiao-Yan Zheng,
Ji-Rong Song, Dai-Di Fan**

Journal of Molecular Catalysis A: Chemical 337 (2011) 25

Controllable bulk solvent-free melt ring-opening polymerization (ROP) of L-lactide catalyzed by Ni(II) and Ni(II)-Ln(III) complexes based on the Salen-type Schiff-base ligand

► d or d-f complexes based on Salen-type Schiff-base ligand. ► Controllable bulk solvent-free melt ring-opening polymerization (ROP) of L-lactide. ► Lewis acidity of active species (d or d-f) being relative to the catalytic activity. ► Intramolecular Ni...Ln separations being relative to the catalysis.

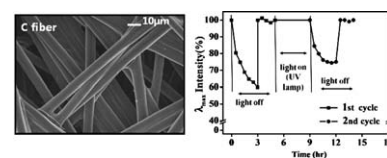


**Nilay Kumar Dey, Myoung Joo Kim,
Kwang-Dae Kim, Hyun Ook Seo, Dongwun Kim,
Young Dok Kim, Dong Chan Lim, Kyu Hwan Lee**

Journal of Molecular Catalysis A: Chemical 337 (2011) 33

Adsorption and photocatalytic degradation of methylene blue over TiO₂ films on carbon fiber prepared by atomic layer deposition

► TiO₂ on C-fiber using atomic layer deposition. ► Adsorption of methylene blue on TiO₂/C-fiber. ► Regeneration of used TiO₂/C-fiber absorbent by photocatalysis.

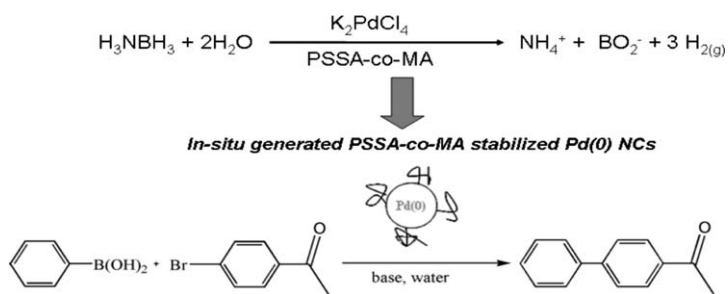


**Önder Metin, Feyyaz Durap, Murat Aydemir,
Saim Özkar**

Journal of Molecular Catalysis A: Chemical 337 (2011) 39

Palladium(0) nanoclusters stabilized by poly(4-styrenesulfonic acid-co-maleic acid) as an effective catalyst for Suzuki-Miyaura cross-coupling reactions in water

► A simple method for well-defined polymer stabilized palladium(0) nanoclusters. ► Excellent catalytic activity in coupling of aryl bromides with phenylboronic acid. ► A recyclable catalyst for the Suzuki coupling reaction in water. ► Highly efficient Suzuki coupling reactions in water under moderate conditions.

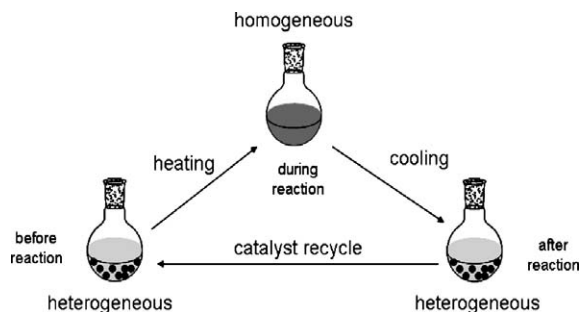


Yong Ding, Wei Zhao

Journal of Molecular Catalysis A: Chemical 337 (2011) 45

The oxidation of pyridine and alcohol using the Keggin-type lacunary polytungstophosphate as a temperature-controlled phase transfer catalyst

► A novel temperature-controlled phase transfer catalyst was prepared. ► This catalyst showed good activity in the oxidation of pyridines and alcohols. ► The catalyst could be easily recovered and reused after reaction.

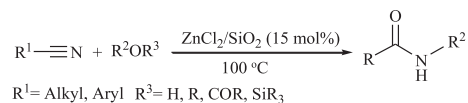


Fatemeh Tamaddon, Fatemeh Tavakoli

Journal of Molecular Catalysis A: Chemical 337 (2011) 52

One-pot synthesis of *N-tert-butyl amides* from alcohols, ethers and esters using $\text{ZnCl}_2/\text{SiO}_2$ as a recyclable heterogeneous catalyst

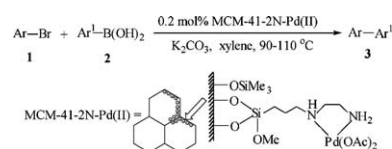
► $\text{ZnCl}_2/\text{SiO}_2$ as a heterogeneous catalyst promotes efficiently the Ritter reaction. ► Scope and generality of the method is obvious for high yielding conversion of alcohols, ethers and esters to amides. ► The catalyst is recyclable. ► Benzonitrile reacted with *tert*-butyl acetate faster than the other sources of *tert*-butyl carbocation in the presence of silicic.

**Hong Zhao, Jian Peng, Ruian Xiao, Mingzhong Cai**

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A simple, efficient and recyclable phosphine-free catalytic system for Suzuki–Miyaura reaction of aryl bromides

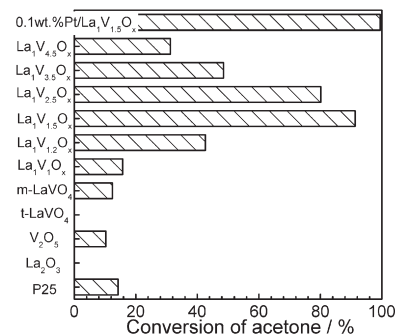
► MCM-41-2N-Pd(II) complex was firstly investigated in the Suzuki–Miyaura reaction. ► This phosphine-free heterogeneous palladium catalyst exhibited high catalytic activity. ► This palladium catalyst can be reused at least 10 times without any decrease in activity. ► Our catalytic system provides a practical procedure for the synthesis of unsymmetrical biaryls.

**Yiming He, Yongjiao Wang, Leihong Zhao, Xintao Wu, Ying Wu**

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Preparation, characterization and activity evaluation of V_2O_5 - LaVO_4 composites under visible light irradiation

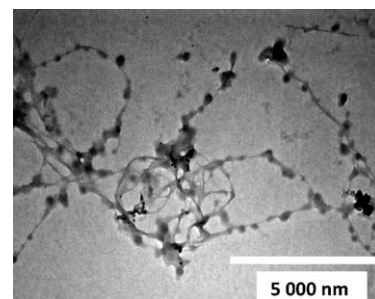
► V_2O_5 - LaVO_4 composite is a novel visible-light driven catalyst. ► The LaVO_4 composite shows high activity for acetone degradation under visible light irradiation. ► The coupling effect of *m*- LaVO_4 and V_2O_5 is the origin of the high activity.

**Taofeek B. Ogunbayo, Tebello Nyokong**

Journal of Molecular Catalysis A: Chemical 337 (2011) 68

Phototransformation of 4-nitrophenol using Pd phthalocyanines supported on single walled carbon nanotubes

► Pd phthalocyanines complexes are adsorbed on single wall carbon nanotubes. ► The adsorbed conjugates are used for phototransformation of nitrophenol. ► Hydroquinone and benzoquinone are the phototransformation products. ► Complexes containing the longest chain gave the best performances.

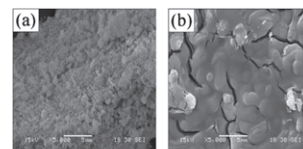


Yang Yu, Yanglong Guo, Wangcheng Zhan, Yun Guo, Yanqin Wang, Yunsong Wang, Zhigang Zhang, Guanzhong Lu

Journal of Molecular Catalysis A: Chemical 337 (2011) 77

Gas-phase hydrogenation of maleic anhydride to γ -butyrolactone at atmospheric pressure over Cu–CeO₂–Al₂O₃ catalyst

► Cu–CeO₂–Al₂O₃ catalyst was prepared by co-precipitation method. ► The catalyst showed better catalytic performance. ► Small crystallite size of Cu and high Cu surface area of the catalyst are favorable. ► The catalyst deactivation is due to the compact wax-like surface deposition. ► The catalytic performance of the regenerated catalyst can be recovered completely.



SEM images of the as-prepared (a) and used (b) Cu₁₁ catalysts

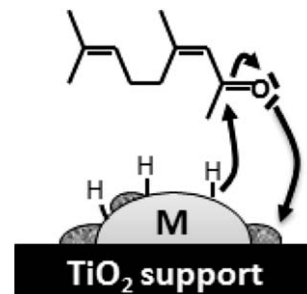
Reaction time (h)	MA conversion (%)			Selectivity (%)							
	0.2 (h ⁻¹)	0.4 (h ⁻¹)	0.6 (h ⁻¹)	GBL			THF			SA	
1	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-	-	-
2	100.0	100.0	100.0	100.0	100.0	100.0	-	-	-	-	-
3	100.0	100.0	99.6	100.0	100.0	99.5	-	-	0.3	-	0.4
4	100.0	100.0	94.1	100.0	100.0	97.0	-	-	0.2	-	2.8
5	100.0	100.0	80.4	100.0	94.2	87.3	-	0.8	-	5.0	12.7
6	100.0	100.0	60.2	100.0	80.7	69.3	-	0.4	-	18.9	30.7
7	100.0	97.3	46.3	100.0	71.2	57.2	-	0.1	-	28.7	42.8
8	100.0	92.5	33.2	99.7	59.7	44.7	0.1	-	0.2	40.3	55.3
9	99.5	82.5	29.5	99.0	40.2	36.2	-	-	1.0	59.8	63.8
10	88.2	70.2	28.7	91.2	36.0	22.6	-	-	8.8	64.0	77.3

Tchirioua Ekou, Lynda Ekou, Aurélie Vicente, Gwendoline Lafaye, Stéphane Pronier, Catherine Especel, Patrice Marécot

Journal of Molecular Catalysis A: Chemical 337 (2011) 82

Citral hydrogenation over Rh and Pt catalysts supported on TiO₂: Influence of the preparation and activation protocols of the catalysts

► TiO₂ supported Rh and Pt catalysts were studied. ► Catalysts for selective hydrogenation of citral towards unsaturated alcohols. ► Products distribution depends on preparation and activation protocols of catalysts. ► SMSI effect promotes the formation of unsaturated alcohols.

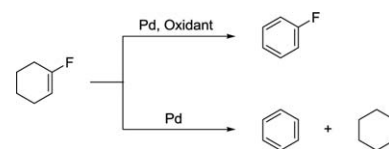


Masahiro Tojo, Shinsuke Fukuoka, Hiroshi Tsukube

Journal of Molecular Catalysis A: Chemical 337 (2011) 89

Mechanistic studies on fluorocyclohexene conversion to fluorobenzene under Pd-catalyzed dehydrogenation

► Pd as dehydrogenation catalyst. ► Catalysts for dehydrogenation of fluorocyclohexenes. ► Fluorobenzene formation by dehydrogenation of fluorocyclohexenes. ► Oxidants effectively suppressed isomerization and disproportionation.



Majid Moghadam, Shahram Tangestaninejad, Valiollah Mirkhani, Iraj Mohammadpoor-Baltork, Shadab Garaati

Journal of Molecular Catalysis A: Chemical 337 (2011) 95

Tetrahydropyranlation of alcohols and phenols catalyzed by a new polystyrene-bound tin(IV) porphyrin

► Supporting of tin(IV) porphyrin on polystyrene. ► A heterogeneous catalyst was prepared. ► These catalysts were active in the tetrahydropyranlation of alcohols and phenols. ► Makes the catalyst reusable.

