

## Some Representative Publications

- “Effect of Cu additives on the performance of a cobalt substituted ceria ( $\text{Ce}_{0.90}\text{Co}_{0.10}\text{O}_{2-\delta}$ ) catalyst in total and preferential CO oxidation”, T. Cwele, N. Mahadevaiah, S. Singh and H.B. Friedrich, *Appl. Catal. B*, **182** (2016) 1-14.
- “The preferential oxidation of CO in hydrogen rich streams over platinum doped nickel oxide catalysts”, Z. Mohamed, V.D.B.C Dasireddy, S. Singh and H.B. Friedrich, *Appl. Catal. B*, **180** (2016) 687-697.
- “Synthesis and characterization of new  $\eta^5$ -cyclopentadienyldicarbonylruthenium(II) amine complexes: Their application as homogeneous catalysts in styrene oxidation”, E.A. Nyawade, H.B. Friedrich, B. Omondi and P. Mpungose, *Organometallics*, **34** (2015) 4922-4931.
- “Effects of organic modifiers on a palladium catalyst in the competitive hydrogenation of 1-octene versus octanal, an evaluation of some SCILL catalysts”, S.F. Miller, H.B. Friedrich, Cedric W. Holzapfel and V.D.B.C. Dasireddy, *ChemCatChem*, **7** (2015) 2628-2636.
- “Cobalt “PNP” aminodiphosphine complexes as catalysts in the oxidation of n-octane”, D. Naicker, H.B. Friedrich, B. Omondi, *RSC Adv.*, **5** (2015) 63125-63129.
- “Hydrogen bonded co-crystallised layered isopropanol-pyrogallol[4]arenes”, P.B. Pansuriya, M. Bala, H.B. Friedrich and G.E.M. Maguire, *Supramolec. Chem.*, **27** (2015) 545-551. [front cover]
- “Preferential oxidation of CO in a hydrogen rich feed stream using Co–Fe mixed metal oxide catalysts prepared from hydrotalcite precursors”, L.Q. Qwabe, H.B. Friedrich, S. Singh, *J. Mol. Catal. A*, **404** (2015) 167-177.
- “Phase transformation of iron in hydroxyapatite in the activation of n-octane”, D. Padayachee, V.D.B.C. Dasireddy, K. Bharuth-Ram, S. Singh, H.B. Friedrich, *Hyperfine Interact.*, **231** (2015) 131-136.
- “Tetramethoxy resorcin[4]arene-tetraester derivatives: Synthesis, characterization and thermal degradation studies”, P.B. Pansuriya, H.M. Parekh, G.E.M. Maguire, H.B. Friedrich, *J. Therm. Anal. Calorim.*, **120** (2015) 653-665.
- “Octenes and aromatics from the oxidative dehydrogenation of n-octane over Co/TiO<sub>2</sub> catalysts”, N. Gounden, H.B. Friedrich, N. Mahadevaiah, M.I. Fadlalla, *Catal. Lett.*, **144** (2014) 2043-2051.
- “The effect of the oxidation environment on the activity and selectivity to aromatics and octenes over cobalt molybdate in the oxidative dehydrogenation of n-octane”, M.I. Fadlalla, H.B. Friedrich, *Catal. Sci. Technol.*, **4** (2014) 4378-4385.

- “Coordination chemistry of Co complexes containing tridentate SNS ligands and their application as catalysts for the oxidation of n-octane”, L. Soobramony, M.D. Bala, H.B. Friedrich, *Dalton Trans.* **43** (2014) 15968-15978.
- “Liquid phase oxidation of n-octane to C8 oxygenates over modified Fe-MOF-5 catalysts”, M.D. Cele, H.B. Friedrich, M.D. Bala, *Catal. Commun.*, **57** (2014) 99-102.
- "The remarkable effect of various Au/Al<sub>2</sub>O<sub>3</sub> preparations on the catalytic behaviour during the continuous flow hydrogenation of an octanal/octene mixture", T. Chetty, H.B. Friedrich, V.D.B.C. Dasireddy, A. Govender, P.J. Mohlala and W. Barnard, *ChemCatChem*, **6** (2014) 2384-2393.
- "The preparation of enantiomerically pure C<sub>4</sub>-symmetric tetramethoxy-resorcarenes obtained from (S)-(-)-1-phenylethyl isocyanate derivatives", A.S. Thakar, H.M. Parekh, P.B. Pansuriya, H.B. Friedrich and G.E.M. Maguire, *Eur. J. Org. Chem.*, (2014) 4600 - 4609.
- “Synthesis, characterization and crystal structures of new water-soluble 1-alkanaminedicarbonyl( $\eta^5$ -cyclopentadienyl)ruthenium(II) tetrafluoroborate complex salts”, E.A. Nyawade, H.B. Friedrich, B.O. Omondi, *Inorg. Chim. Acta*, **415** (2014) 44-51.
- “Characterisation and application of montmorillonite-supported Fe Schiff base complexes as catalysts for the oxidation of n-octane”, E. Kadwa, M.D. Bala, H.B. Friedrich, *Appl. Clay Sci.*, **95** (2014) 340-347.
- “Effect of the NaY matrix in the oxidation of n-octane, cyclohexane, 1-octene and 4-octene by encapsulated porphyrin and Fe-NaY” M.D. Cele, H.B. Friedrich, M.D. Bala, *Reac. Kinet. Mech. Cat.*, **111** (2014) 737-750.
- “Activation of n-heptane: a study with VMgO catalysts”, V.D.B.C. Dasireddy, F.B. Khan, S. Singh and H.B. Friedrich, *Catal. Lett.*, **144** (2014) 590-597.
- “The selective continuous flow synthesis of lower alcohols from polyols - a mechanistic interpretation of the results“, E. van Ryneveld, A.S. Mahomed, P.S. van Heerden, M.J. Green, C. Holzapfel, H.B. Friedrich, *Catal. Sci. Technol.*, **4** (2014) 832 - 837.
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- "Mixed Cu-Ni-Co nano-metal oxides: A new class of catalysts for styrene oxidation", J. Valand, H. Parekh, H.B. Friedrich, *Catal. Commun.* **40** (2013) 149-153.
- “Microwave-Assisted Transfer Hydrogenation of ketones by Ru(xantphos) arene complexes”, T. Marimuthu and H.B. Friedrich, *ChemCatChem*, **4** (2012) 2090-2095.
- “Heterogenization of Some PNP Ligands for the Oligomerisation of Ethylene”, M.L. Shoji and H.B. Friedrich, *S. Afr. J. Chem.*, **65** (2012) 214-222.

- “The effects of SCILL catalyst modification on the competitive hydrogenation of 1-octyne and 1,7-octadiene versus 1-octene”, S.F. Miller, H.B. Friedrich and C.W. Holzappel, *ChemCatChem*, **4** (2012) 1337-1344.
- ”Regioselective reactions of electrophilic iron dicarbonyl cations,  $[(\eta^5\text{-C}_5\text{R}_5)(\text{CO})_2\text{Fe}]^+$  (R = H, CH<sub>3</sub>) with heterofunctional amine ligands”, C.M. M’thiruaine, H.B. Friedrich, E.O. Changamu, B. Omondi, *J. Organometal. Chem.*, **717** (2012) 52-60.
- “Reactions of *N*-heterocyclic ligands with substitutionally labile organometallic complexes,  $[(\eta^5\text{-C}_5\text{R}_5)(\text{CO})_2\text{FeE}]\text{BF}_4$  (R = H, CH<sub>3</sub>; E = THF, Et<sub>2</sub>O)”, C.M. M’thiruaine, H.B. Friedrich, E.O. Changamu, M.D. Bala, *Inorg. Chim. Acta*, **390** (2012) 83-94.
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