

In this issue

Timothy Noël and Johan Van der Eycken

Ferrocene-derived P,N ligands: synthesis and application in enantioselective catalysis

DOI 10.1515/gps-2013-0036

Green Process Synth 2013; 2: 297–309

Review: This review aims to give a concise introduction to the syntheses of chiral hybrid P,N-ferrocenyl ligands and presents an overview of their application in enantioselective catalysis.

Keywords: enantioselective catalysis; ferrocene; P,N ligands.



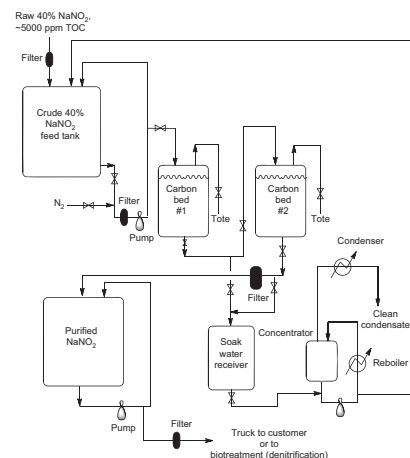
Thomas L. Guggenheim, Lioba M. Kloppenburg and Christopher Poirier
Purification and utilization of a formerly incinerated sodium nitrite bearing wastewater stream

DOI 10.1515/gps-2013-0047

Green Process Synth 2013; 2: 311–322

Original article: A process to isolate and purify an industrial aqueous sodium nitrite bearing by-product stream was developed and built; key elements and the environmental impact of the carbon-based technology are presented.

Keywords: activated carbon; incineration; sodium nitrite; wastewater.



DiAndra M. Rudzinski and Nicholas E. Leadbeater

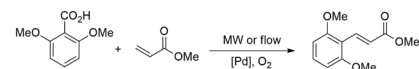
Microwave heating and conventionally-heated continuous-flow processing as tools for performing cleaner palladium-catalyzed decarboxylative couplings using oxygen as the oxidant – a proof of principle study

DOI 10.1515/gps-2013-0043

Green Process Synth 2013; 2: 323–328

Original article: Microwave heating and continuous-flow processing are used as tools for facilitating a palladium-catalyzed decarboxylative Heck reaction using molecular oxygen as the oxidant.

Keywords: decarboxylative coupling; flow chemistry; microwave heating.



Ashish Kumar, Surender Kumar and Jagdish K. Makrandi

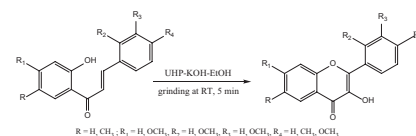
A highly efficient eco-friendly AFO reaction using grinding technique: synthesis of 3-hydroxy-2-phenyl-4*H*-chromen-4-ones

DOI 10.1515/gps-2013-0042

Green Process Synth 2013; 2: 329–333

Original article: 3-Hydroxy-2-phenyl-4*H*-chromen-4-ones (3-hydroxyflavones or flavonols) are obtained by the reaction of 2'-hydroxychalcones with urea-hydrogen peroxide complex (UHP) with ethanol under grinding conditions in excellent yields, with epoxidation and cyclization taking place in the same pot simultaneously.

Keywords: 2'-hydroxychalcones; alkaline medium; eco-friendly; grinding technique; urea-hydrogen peroxide complex (UHP).



Sara Montanaro, Christian Herrero, Daniele Merli, Maurizio Fagnoni, Antonio Poggi, Stefano Protti, Sujitraj Sheth and Angelo Albini

Experiments with the titanium dioxide-ruthenium *tris*-bipyridine-nickel cyclam system for the photocatalytic reduction of CO₂

DOI 10.1515/gps-2013-0040

Green Process Synth 2013; 2: 335–343

Original article: Ruthenium (II) bipyridine bearing carboxylic or phosphonyl groups are tested in the photocatalytic reduction of CO₂.

Keywords: CO₂ reduction; photocatalysis; ruthenium (II) *tris*-bipyridine; titanium dioxide.

