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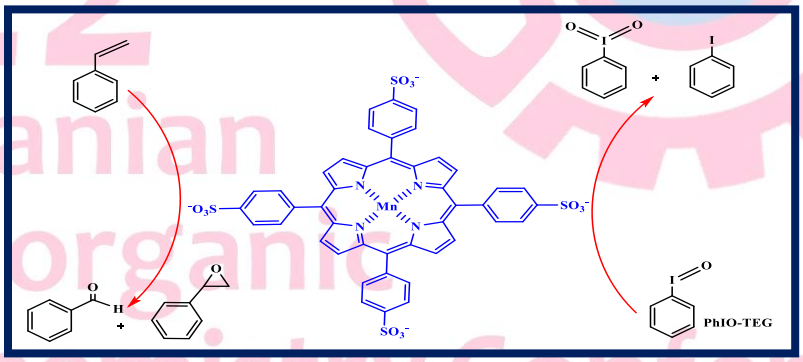
Oxidation of organic compounds with nanostructured iodosylbenzene catalyzed by manganese porphyrins

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The manganese complex of the sulfonated derivatives of meso-tetrakis(4-methoxyphenyl)porphyrin, $H_2T(4\text{-}OCH_3)PP$, meso-tetrakis(2-chlorophenyl)porphyrin, $H_2T(2\text{-}Cl)PPS_4$ also a porpyrin with cationic substituents at the meso positions, meso-tetrakis(4-methylpyridyl)porphyrin, H_2TMPy, were used as catalysts in biomimetic oxidation of olefins with bulk and nano-structured iodosylbenzene under homogeneous conditions. The nanostructured oxidatnt, PhIO-TEG was synthesized by controled alkaline hydrolysis of iodobenzene diacetate in the presence of triethylene glycol monomethyl ether (TEG) [1]. The product distribution as well as the conversion yields were found to be significantly infuenced by changing the oxidant from bulk to nano-structured PhIO. It is noteworthy that due to the very low solubility of most hypervalent iodine compounds, many efforts were devoted to the synthesis of more soluble and reactive I(III) and I(V) derivatives [2-4].



Keywords: Iodylbenzene-triethylene glycol monomethyl ether nanocomposite, Oxidation of organic compounds, Manganese porphyrins, Hypervalent iodine compounds

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