International Journal of ChemTech Research
CODEN (USA): IJCRGG ISSN: 0974-4290
Vol.8, No.12 pp 735-740, 2015

Cobalt(III)-salen ion catalyzed H_2O_2 oxidation of dibenzyl sulfide

Sweetlin Rajula Rubavathi, Balakumar Subramanian

Loyola College, Nungambakkam, Chennai-600034.†PSN College of Engineering and Technology, Tirunelveli-627152, India

Abstract: Cobalt(III)-salen complexes {salen = N,N'bis(salicylidene)ethylenediaminato} efficiently catalyze the H_2O_2 oxidation of sulfides. This reaction leads to the formation of sulfoxides as the major product. The spectrophotometric kinetic study shows that the reaction follows Michaelis-Menten kinetics. Based on the spectral and kinetic studies a suitable electron transfer mechanism has been proposed.
Keywords: Cobalt(III)-salen catalyst – H_2O_2 oxidation –DBS.

Sweetlin Rajula Rubavathi *et al* /Int.J. ChemTech Res. 2015,8(12),pp 735-740.

*****