

S-S Coupling of Thiols to Disulfides Using Ionic Liquid in the Presence of Free Nano Fe₂O₃ Catalyst

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Abstract : An efficient and green method for oxidation of thiols to the corresponding disulfides is reported using ionic liquid [HSO₃N(C₂H₄OSO₃H)₃] in the presence of free nano-Fe₂O₃ at 60°C. Ionic liquid is selective oxidant for S-S Coupling variety aliphatic and aromatic of thiols to corresponding disulfide in the presence of free nano-Fe₂O₃ as recoverable catalyst. Reaction has been performed in methanol as an inexpensive solvent. This reaction is clean and easy work-up with no side reaction.

Keywords : thiol, disulfide, ionic liquid, free nano-Fe₂O₃, oxidation, coupling

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