

Phyto-synthesis of CuO nano-particles and its catalytic application in C-S bond formation

Duraipandi Devi Priya^a, Selvaraj Mohana Roopan^a, Sehajpreet Singh^a, Jatin Bansal^a, Shajahan Shanavas^b, Maksudur Rahman Khan^c, Naif Abdullah Al-Dhabi^d, Mariadhas Valan Arasu^d, Veeramuthu Duraipandiyar^d

^a Chemistry of Heterocycles & Natural Product Research Laboratory, Department of Chemistry, School of Advanced Science, Vellore Institute of Technology, Vellore 632 014, Tamilnadu, India

^b Nano and Hybrid Materials Laboratory, Department of Physics, Periyar University, Salem 636 011, India

^c Faculty of Chemical and Natural Resources Engineering, Universiti Malaysia Pahang, 26300 Gambang, Pahang, Malaysia

^d Department of Botany and Microbiology, College of Science, King Saud University, Riyadh, 11451, Saudi Arabia

ABSTRACT

Inside the current examination, we examined the phyto-synthesis of CuO nanoparticles (CuO NPs) using *Indigofera tinctoria* (*I. tinctoria*). UV–Vis absorption spectroscopy was utilized to screen the stepwise development of CuO NPs. Transmission Electron Microscopy (TEM) analysis revealed the formation of nanoparticles in spherical shapes varying in size from 10 to 30 nm. The catalytic effects of the CuO NPs were tested in Carbon-Sulfur bond forming reaction. The synthesised organic moiety was affirmed using FT-IR, ¹H NMR, and ¹³C NMR and GC–MS examinations.

KEYWORDS

Green synthesis; FTIR; Nanoparticles; Nanosize; Organic; Catalytic activity

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