

Green synthesis nanokomposit ZnO-CuO menggunakan ekstrak kulit biji theobroma cacao l. dan uji aktivitas fotodegradasi metilen biru =
Green synthesis nanocomposite ZnO-CuO using theobroma cacao l. seed extract and photodegradation activity test of methylene blue

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Abstrak

Green Synthesis Nanokomposit ZnO-CuO menggunakan ekstrak kulit biji Theobroma Cacao L dan uji aktivitas fotodegradasi zat warna metilen biru Abstract. Metode ramah lingkungan yaitu green synthesis of ZnO menggunakan ekstrak kulit biji coklat telah ditemukan. Percobaan tersebut menggunakan precursor Zn NO₃ 2 dan Cu NO₃ 2. TCL adalah bahan utama pengganti NaOH, yang terkandung dalam alkaloid yang memiliki kemampuan menghidrolisis melepaskan OH⁻. Persiapan dari ZnO bergantung pada rasio dari konsentrasi OH⁻/Cu²⁺. Identifikasi zat aktif pada ekstrak kulit biji coklat dapat dilakukan dengan menggunakan uji fitokimia. Green sintesis ZnO-CuO dikarakterisasi menggunakan UV-Vis DRS spectrophotometer, Fourier-transform infrared FT-IR spectroscopy, scanning electron microscopy-energy dispersive X-ray Spectroscopy SEM-EDS and X-ray diffraction analysis XRD.

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Name Taufik hidayat Program Study Undergraduate Program Departement of Chemistry Title Green Synthesis Nanocomposite ZnO CuO using Theobroma Cacao L Seed Extract and Fotodegradation Activity Test of Methylene Blue Abstract. Eco friendly method for green synthesis of ZnO using leaf extract of Theobroma cacao L was reported. It uses Zn NO₃ 2 and Cu NO₃ 2 precursor as raw material. TCL is as source of base to replace NaOH, due to contains alkaloid which has ability for hydrolyzing to release OH⁻. Preparation of ZnO depends on the ratio of OH⁻ Cu²⁺ concentrations. Identification of active compounds in leaf extract was obtained by phytochemical analysis. The green synthesis ZnO CuO was characterized by UV Vis DRS spectrophotometer, Fourier transform infrared FT IR spectroscopy, scanning electron microscopy energy dispersive X ray Spectroscopy SEM EDS and X ray diffraction analysis XRD.