

## Optimasi adsorpsi magnetik kitosan nanopartikel terhadap eosin B dengan metode respon permukaan

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20439143&lokasi=lokal>

---

### Abstrak

The adsorption of Eosin B from waste water using magnetic chitosan nanoparticle(MCNs) has been investigated. Response surface methodology (RSM) was employed to optimize the adsorption parameters of Eosin B from waste water. The effects of three independent variables, namely pH, dosage MCNs and initial concentration Eosin B on the capacity adsorption were investigated. Results indicated that the data were adequately fitted into three second-order polynomial models. The independent variables, the linearity of adsorption pH and dosage, the quadratics of initial concentration and dosage, the interactions between initial concentration and pH, initial concentration and dosage, as well as absorption pH and dosage had a significant effect on the absorption capacity. The optimal adsorption parameters were the initial concentration Eosin B of 300 ppm 51.3%, adsorption pH of 5.5 and dosage CNMs of 100 mg according to the response surface analysis. Under this condition, the adsorption capacity was 23.84 mg/g,