Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supplementary Data

Chemically Grafting Cu(II)-Schiff base complex on magnetic graphene oxide-cobalt ferrite ($GO/CoFe_2O_4$) nanocomposite for selective and ultrafast removal of toxic anionic dyes and dichromate-chromate anions from water

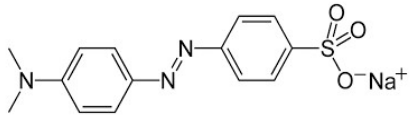
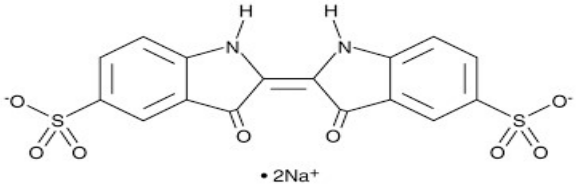
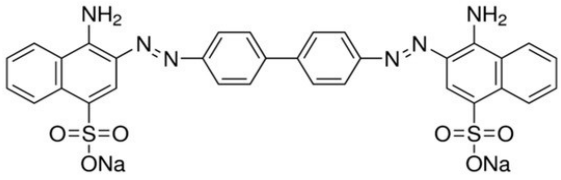
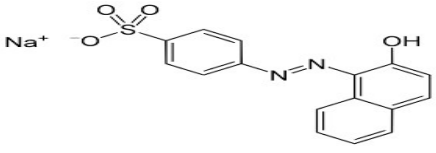
Ladan Nirumand and Saeed Farhadi*

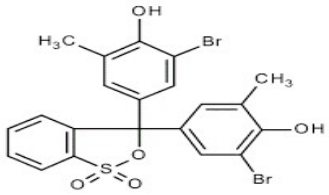
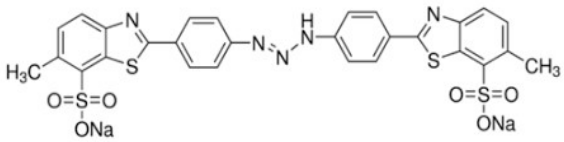
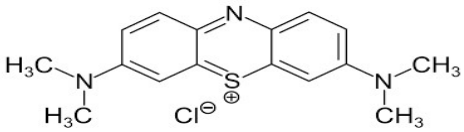
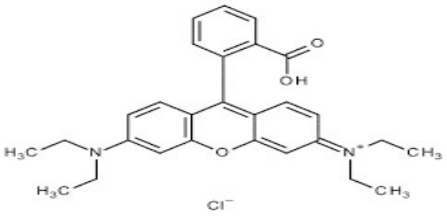
Department of Chemistry, Lorestan University, Khorramabad 68151-44316, Iran

*Corresponding author: E-mail: farhadi.s@lu.ac.ir

Tel: +986633120611, fax: +986633120618

Table S1. Chemical structures and selected properties of dye molecules.

Name	structure	λ_{max} (nm)
Methyl Orange (MO)		462
Indigo Carmine (IC)		609
Congo Red (CR)		485
Orange II (OR)		484

Bromocresol (BC)		588
Titan Yellow (TY)		410
Methylene Blue (MB)		664
Rhodamine B (RhB)		543

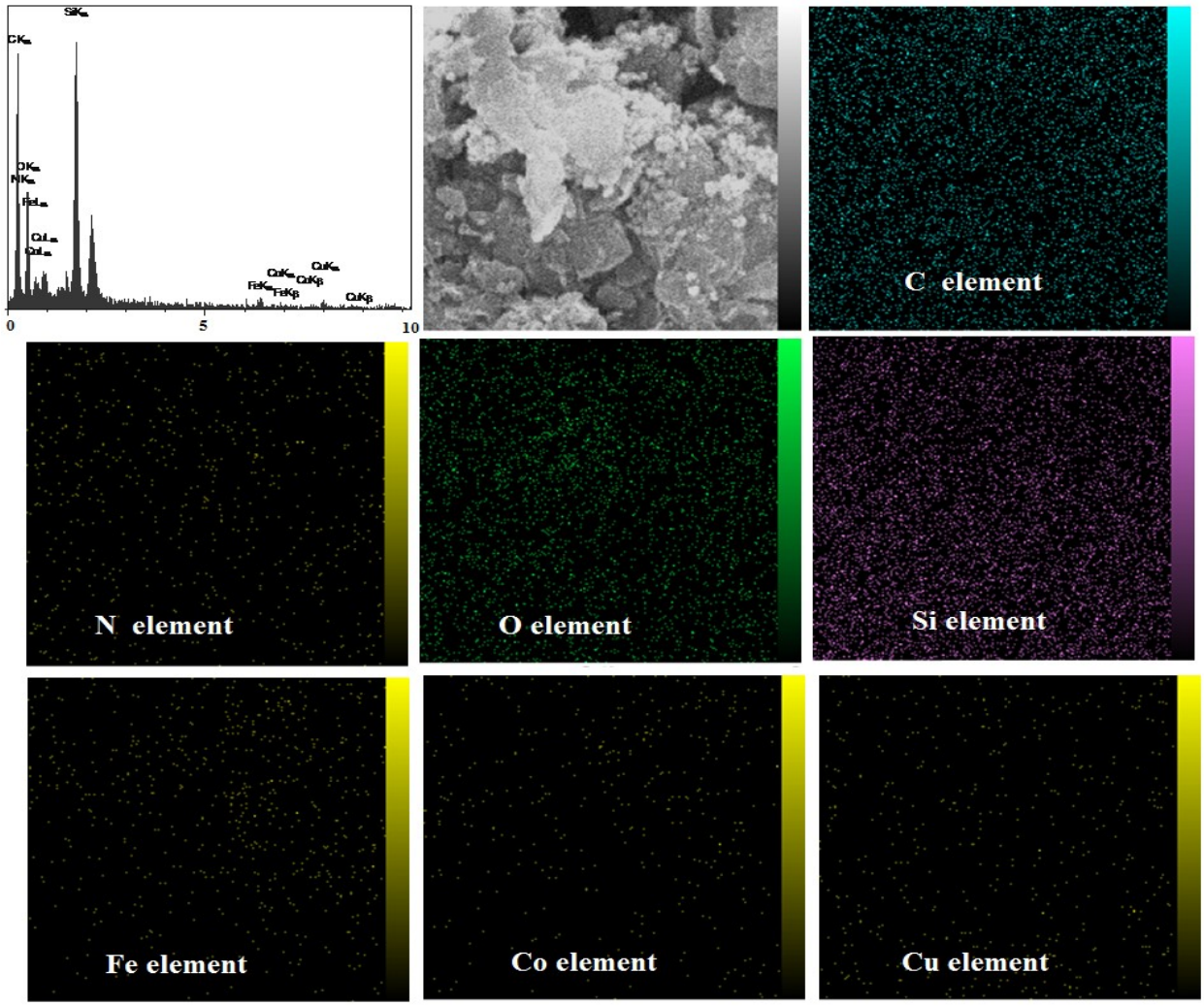


Fig. S1. The EDX analysis and mapping images of Cu(Schiff base)-GO/$CoFe_2O_4$ composite.

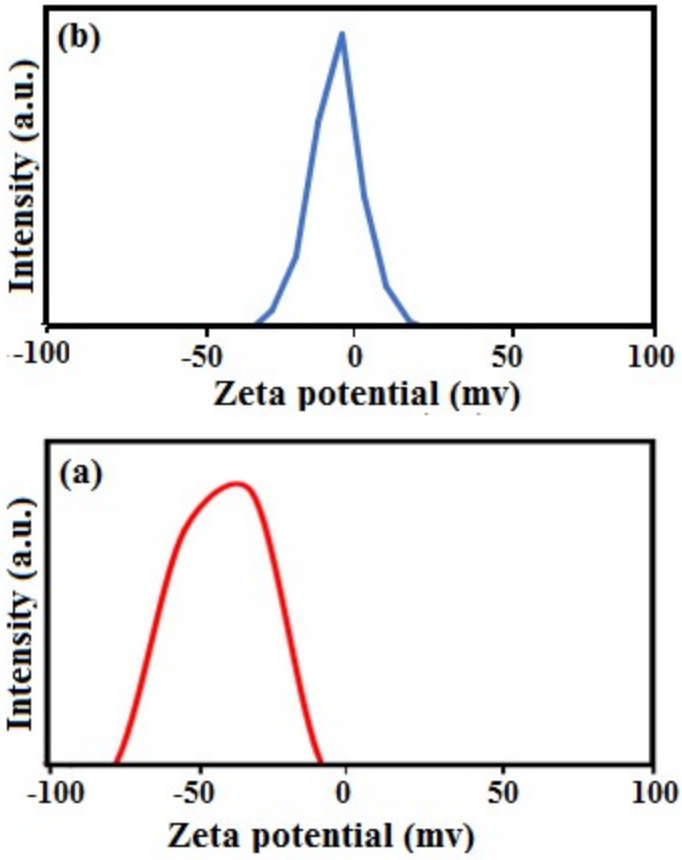


Fig. S2. Zeta potential curves of (a) GO and (b) Cu(Schiff base)-GO/$CoFe_2O_4$.

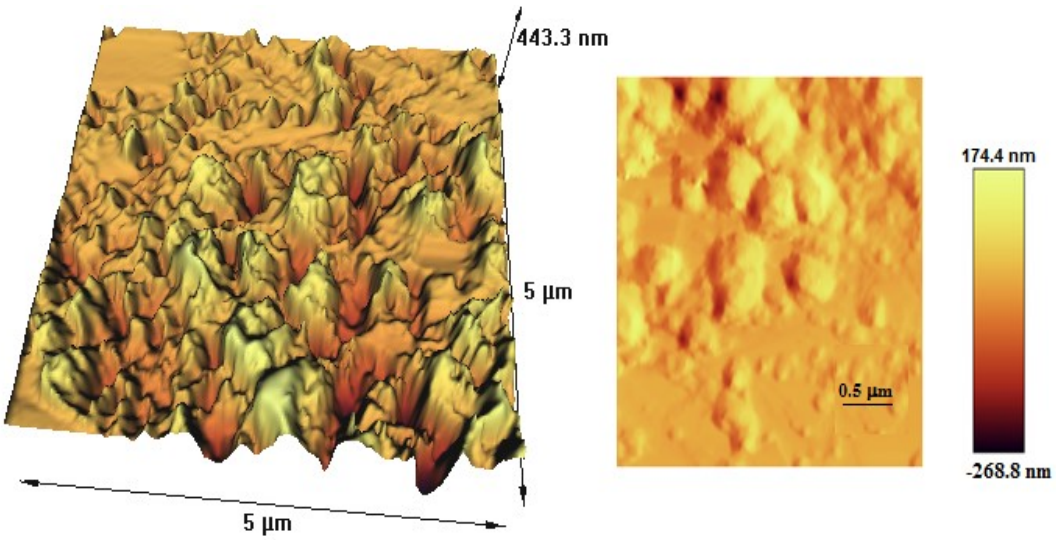


Fig. S3. 2D and 3D AFM micrographs of Cu(Schiff base)-GO/$CoFe_2O_4$ nanocomposite.

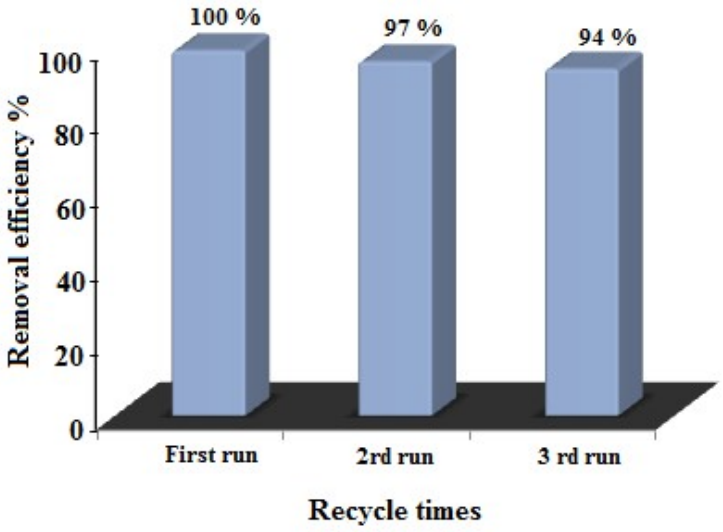


Fig. S4. The reusability curve of the Cu(Schiff base)-GO/$CoFe_2O_4$ on the adsorption of BC after three cycles.

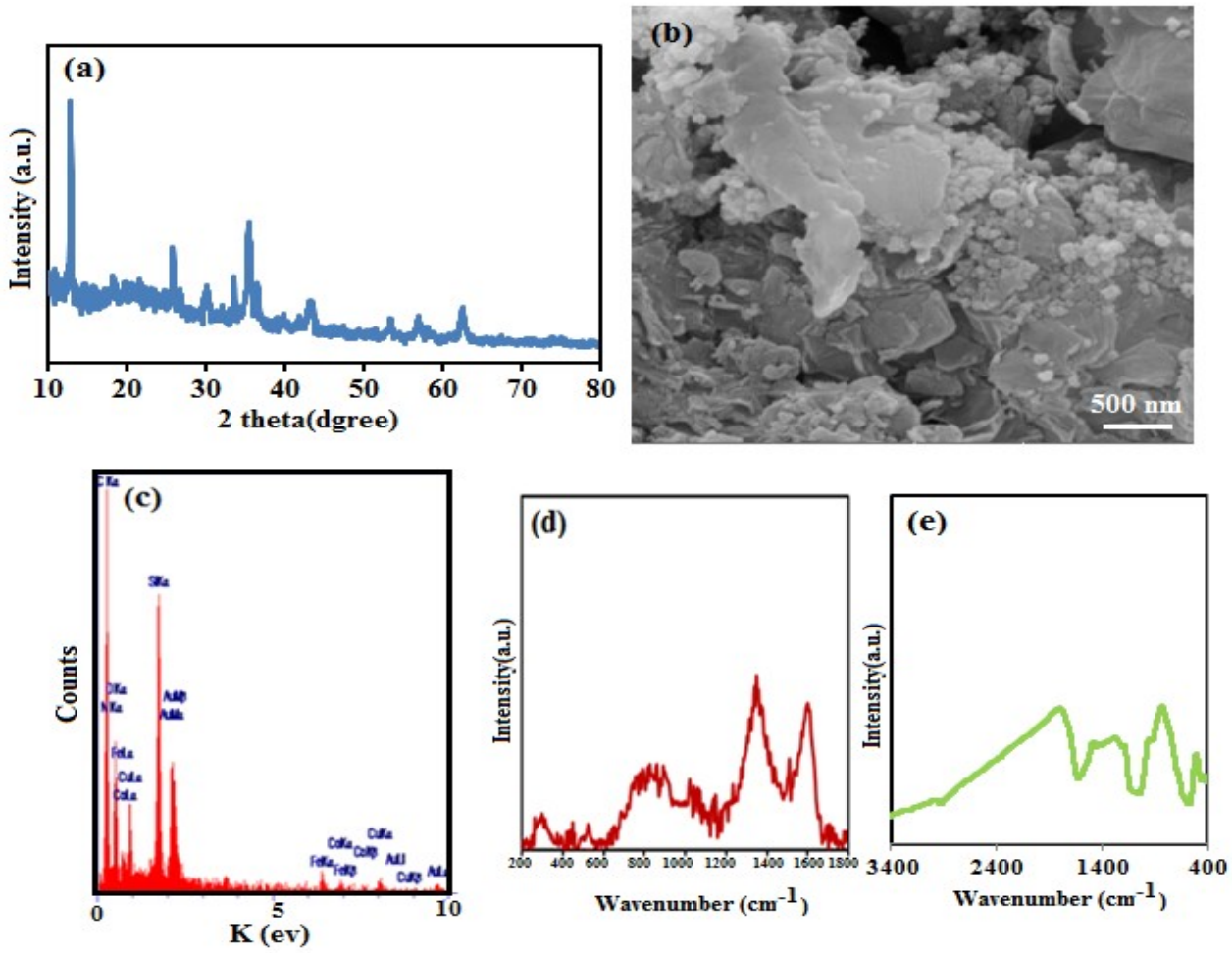


Fig. S5. (a) XRD, (b) SEM, (c) EDX, (d) Raman and (e) IR analyses of the reused Cu(Schiff base)-GO/$CoFe_2O_4$ on the adsorption of BR after three cycles.