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Title: Carboxymethylcellulose hydrogels cross-linked with magnetite nanoparticles for the removal of organic and inorganic pollutants from water

Authors: M. Uva, M. Tambasco, G. Grassi, I. Corsi, G. Protano, A. Atrei



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Carboxymethylcellulose hydrogels cross-linked with magnetite nanoparticles for the removal of organic and inorganic pollutants from water.

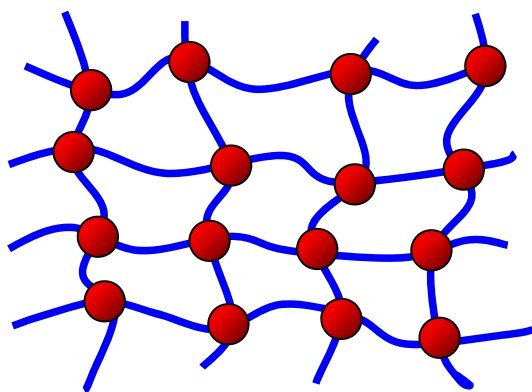
M. Uva^{1,2}, M. Tambasco¹, G. Grassi³, I. Corsi³, G. Protano³ and A. Atrei^{1,2,*}

¹ Dipartimento di Biotecnologie, Chimica e Farmacia, Università di Siena, 53100 Siena, Italy.

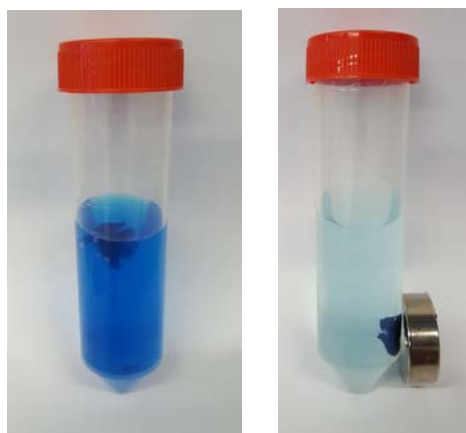
² CRISMA, Colle di Val d'Elsa, (Si), Italy.

³ Dipartimento di Scienze Fisiche, della Terra e dell'Ambiente, Università di Siena, 53100 Siena, Italy.

Graphical abstract



CMC hydrogel cross-linked with functionalized



Removal of MB and Cd(II) by the magnetic hydrogel

Highlights

- CMC hydrogels cross-linked with functionalized Fe_3O_4 nanoparticles were prepared
- Fe_3O_4 nanoparticles covalently linked to the polymer chains
- These magnetic hydrogels are capable to remove MB and Cd from aqueous solutions
- The saturated hydrogels can be regenerated and reused by washing with sea water

* Corresponding author. e-mail: andrea.atrei@unisi.it

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