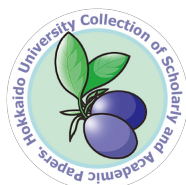




HOKKAIDO UNIVERSITY

Title	Preparation and characterization of chitosan-caboxymethyl- β -cyclodextrin entrapped nanozero-valent iron composite for Cu (II) and Cr (IV) removal from wastewater
Author(s)	Sikder, Md. Tajuddin; Mihara, Yoshihiro; Islam, Md. Shariful et al.
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Highlights

- Highly efficient CS-NZVI-CM β -CD composite beads were synthesized to remove Cr (VI) and Cu (II) in solution.
- NZVI gives strength to CS-NZVI-CM β -CD beads and facilitates magnetic separation.
- CM β -CD into chitosan incorporates more functional groups for higher sorption.
- Both redox and adsorption processes were proved as the key removal mechanisms.
- Endothermic and exothermic adsorption for Cr (VI) and Cu (II), respectively.