Supporting Information

Highly selective magnetic affinity purification of histidine-tagged proteins by Ni²⁺ carrying monodisperse composite microspheres

Kouroush Salimi,^a Duygu Deniz Usta,^{b,c} İlkay Koçer,^a Eda Çelik,^{a,d} and Ali Tuncel ^{a,e,*}

^aChemical Engineering Department, Hacettepe University, 06800, Ankara, Turkey.
^bDepartment of Medical Biology and Genetics, Gazi University, 06500, Ankara, Turkey.
^cDepartment of Medical Biology, İstanbul Medeniyet University, 34700, İstanbul, Turkey.
^dInstitute of Science, Division of Bioengineering, Hacettepe University, 06800, Ankara, Turkey.
^eDivision of Nanotechnology and Nanomedicine, Hacettepe University, 06800, Ankara, Turkey.

*Corresponding author: A. Tuncel, <u>atuncel@hacettepe.edu.tr</u> Tel: +90-312-297 74 00, Fax: +90-312-299 21 24.



Fig. S1 SDS-PAGE analysis showing side-by-side comparison of Ni²⁺-IDA-GLYMO@SiO₂@Mag-SiO₂ microspheres with two selected, commercial sorbents. (A) commerical resin-1, (B) commerical resin-2, and (C) Ni²⁺-IDA-GLYMO@SiO₂@Mag-SiO₂ microspheres.



Fig. S2 SDS-PAGE analysis of affinity purification steps of His-tagged endoglucanase (Cel5A) from *E. coli* lysate, using 10 mg of sorbent in 0.4 mL of adsorption medium at pH 7.0. Cell lysate (CL), flowthrough (F), wash 1 (W1), wash 2 (W2), Elutions 1-3 (E1-E3).