

SUPPORTING INFORMATION

Gold Nanoparticle-Supported Histamine-Grafted Monolithic Capillaries as Efficient Microreactors for Flow through Reduction of Nitro-Containing Compounds

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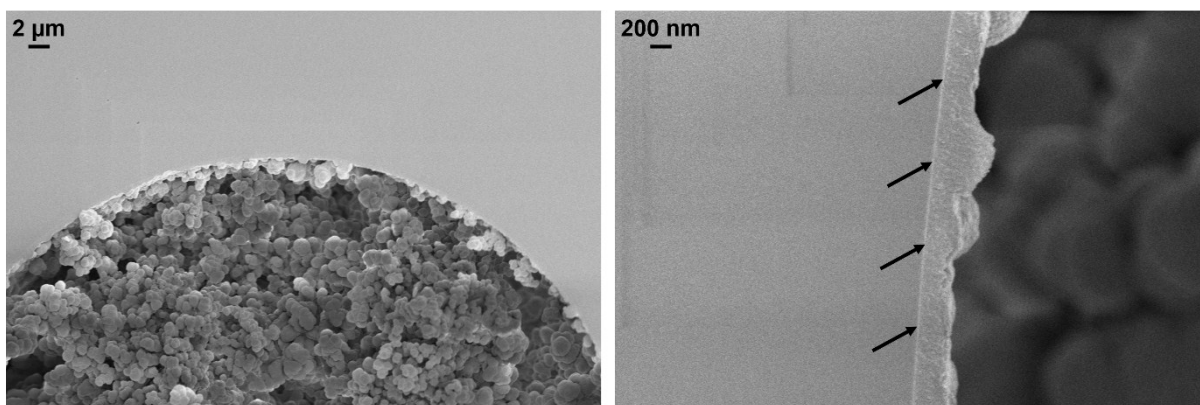


Fig. S1. MEB micrographs of the NAS-based microcolumns showing the tight anchoring of the porous polymer matrix at the inner wall of the capillary (the tight anchoring is highlighted on the right image by the black arrows).

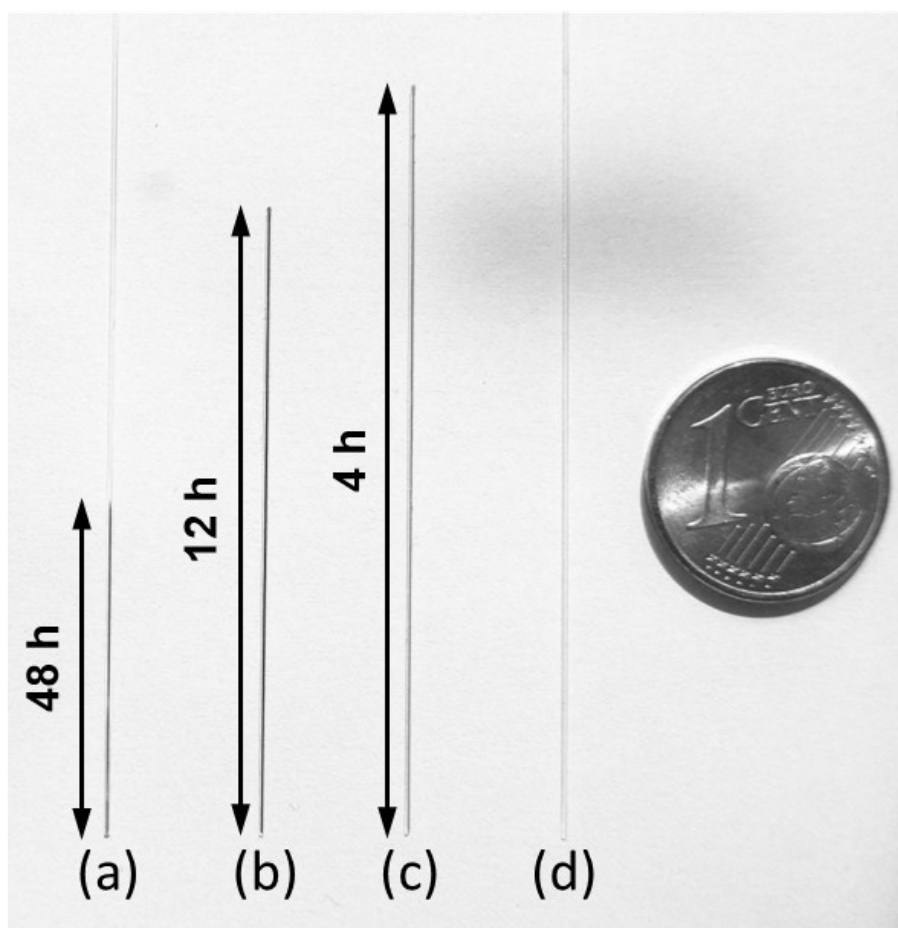


Fig. S2. Different monolithic columns observed to the naked eye: (a) 100 nm GNPs-, (b) 20 nm GNPs-, (c) 5 nm GNPs-modified monolith and (d) histamine-grafted P(NAS-co-EDMA) capillary. The double arrows indicate the length of the monolith capillary decorated with GNPs against time.

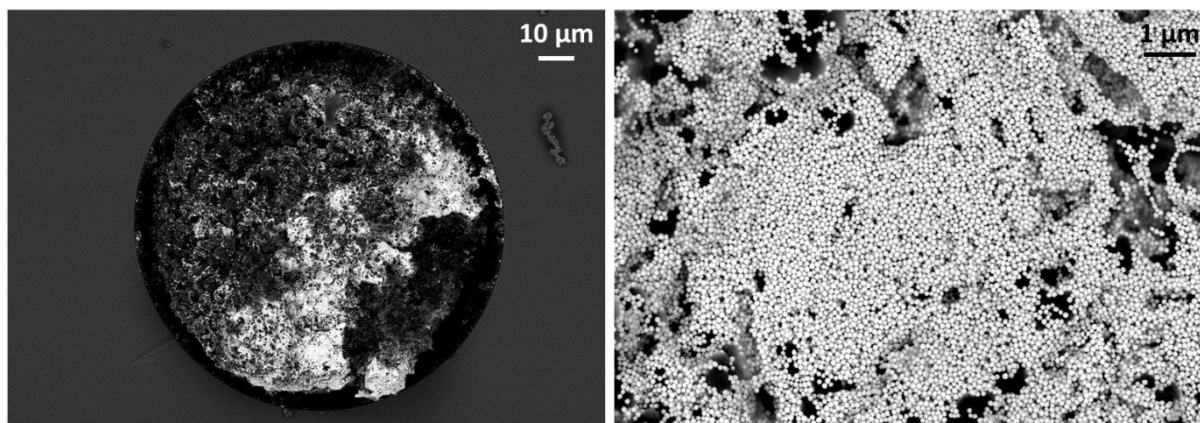


Fig. S3. Scanning Electron Micrographs of a cross-section of the 100 nm GNPs immobilized capillary inlet highlighting the presence of aggregates of GNPs all over the polymer monolith porous surface.

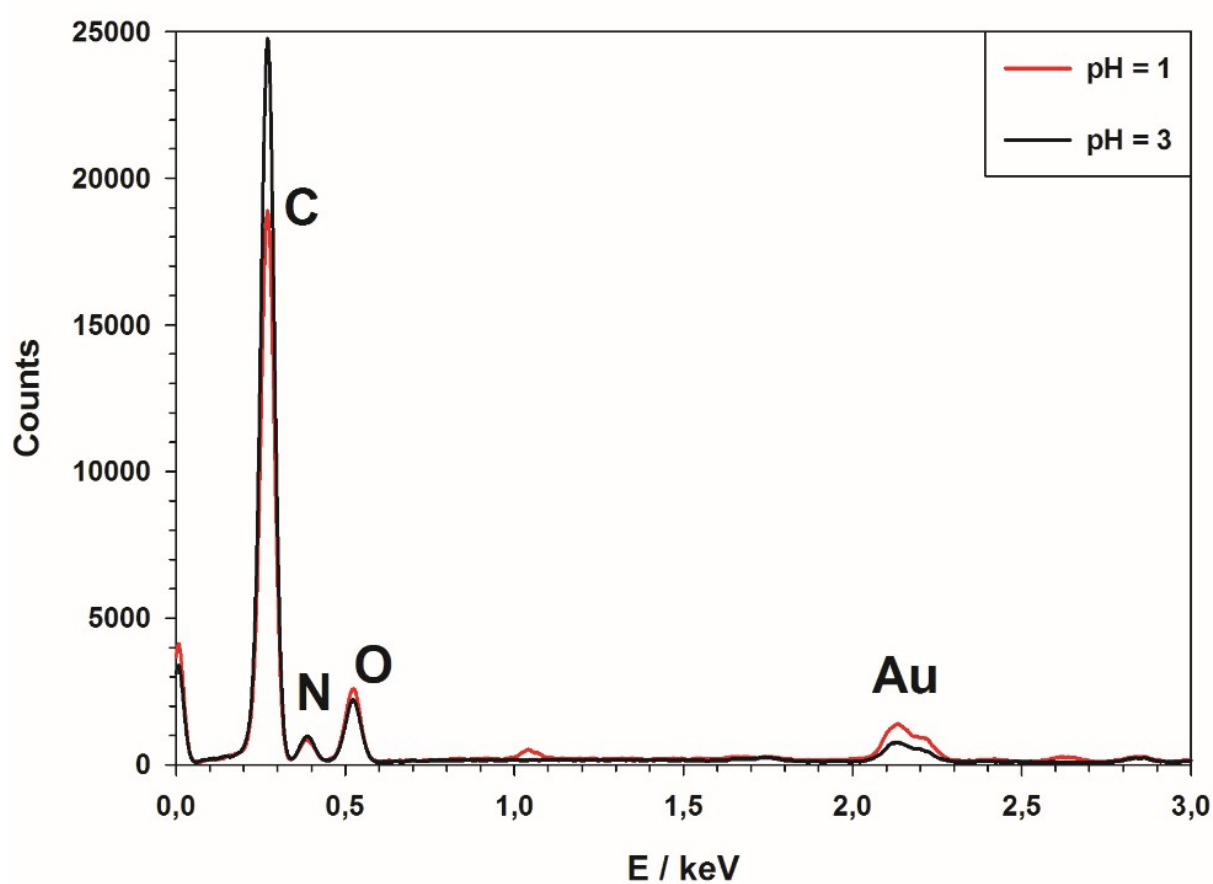


Fig. S4. EDX spectra of the 20 nm GNPs-immobilized histamine-grafted monolithic columns obtained after preliminary rinsing at pH = 1 (red curve) or pH = 3 (black curve).

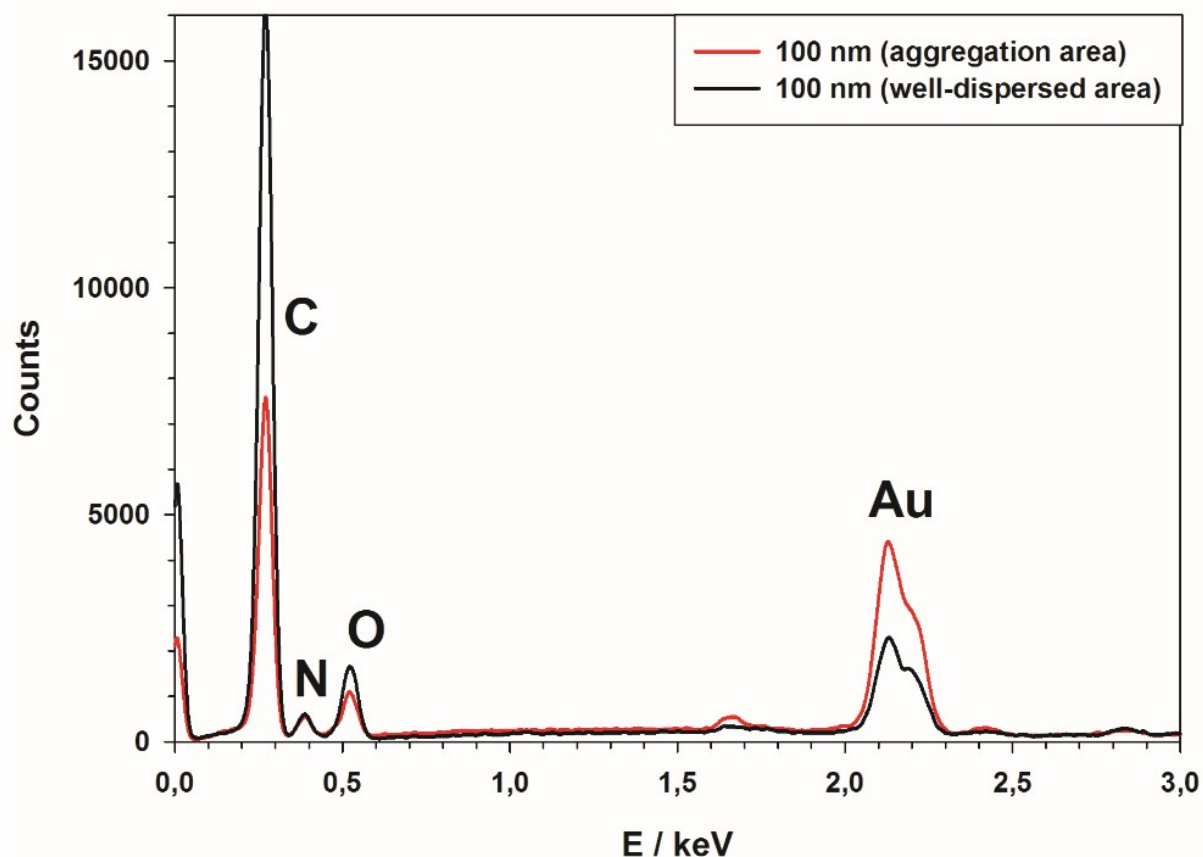


Fig. S5. EDX spectra of the 100 nm GNPs-immobilized histamine-grafted monolithic columns obtained in aggregated area (red curve) or in well-dispersed area (black curve) of the capillary.

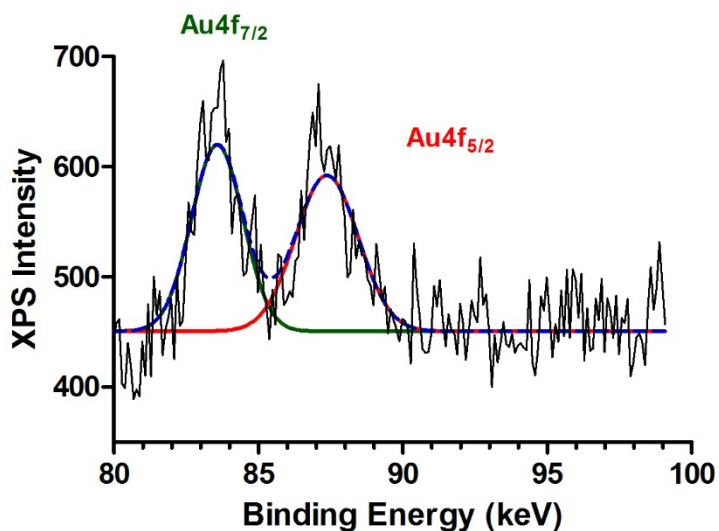


Fig. S6. XPS spectrum of the bulk hybrid monolith obtained after immersion of the histamine-functionalized monolith with a citrate-stabilized 20 nm-sized gold nanoparticle colloidal solution (monolith was rinsed with a pH 1 aqueous solution prior to gold nanoparticles immobilization).