



Figure S1. TEM image of MNPs.

Table S1. The Si:Fe:Ru molar ratios of MNPs calculated from ICP-OES (inductively coupled plasma optical emission spectrometry) data, diameter of MNPs (d_{TEM}) evaluated from TEM, average size (d), electrokinetic potential (ζ), polydispersity index (PDI) from DLS measurements in water.

Sample	Molar ratio of Si:Fe:Ru (ICP-OES)	$C_{\text{NH}_2\text{-groups}}$ (mM) per 1 g L ⁻¹ dispersion	d_{TEM} / nm	DLS data		
				d /nm	PDI	ζ / mV
	1:0.07:0.011	0.275	78±14	900±100	0.882	+14