

Supporting Information

Rewritable Magnetic Fluorescent-Encoded Microspheres: Preparation, Characterization, and Recycling

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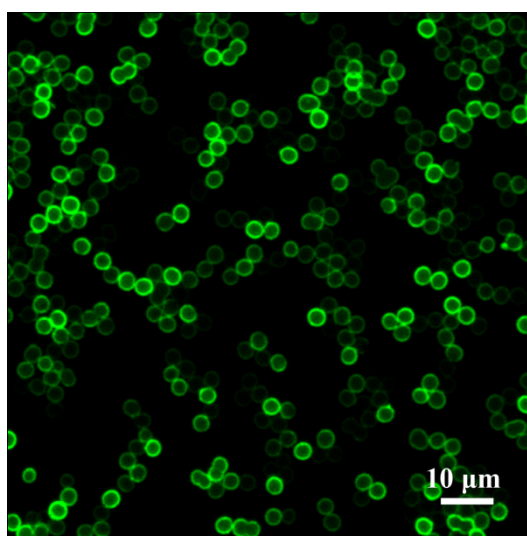


Fig.S1 LSCM images of magnetic fluorescent MS-MF microspheres with different Rh 110 doping concentrations.

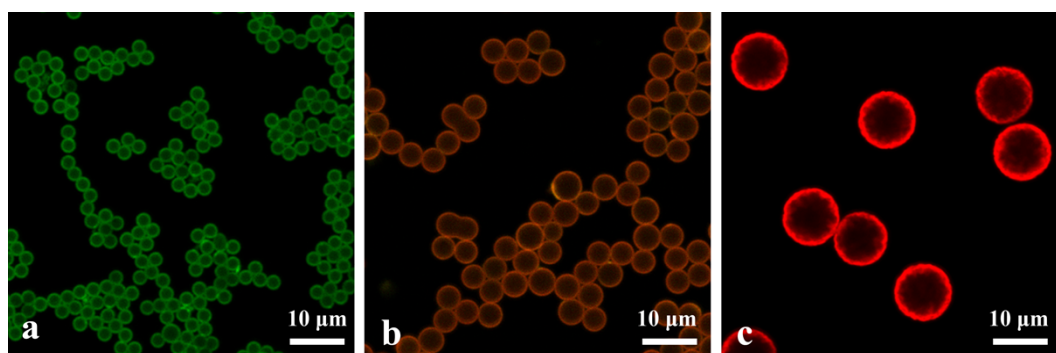


Fig.S2 LSCM images of different sized polystyrene microspheres coated with fluorescent MF shell, a: Rh 110 doped, b: Rh 110/SRh 101 co-doped, c: SRh 101 doped. The polystyrene microspheres in a and b were of smooth surfaces whereas the microspheres in c were of mesoporous surface structure. After fluorescent MF shell coating, the structure differences could be easily distinguished through the fluorescence distribution.

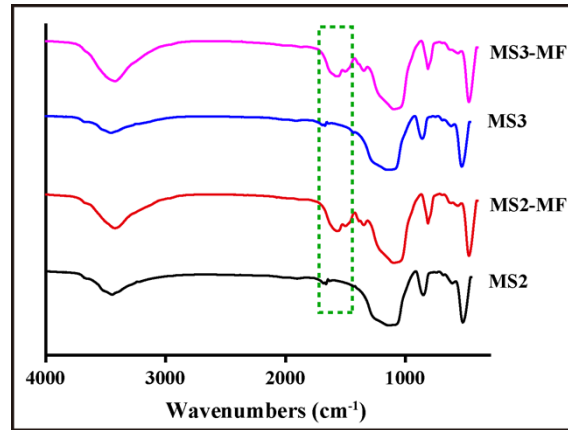


Fig.S3 FTIR spectra of MS-MF microspheres with different writing-erasing cycles.

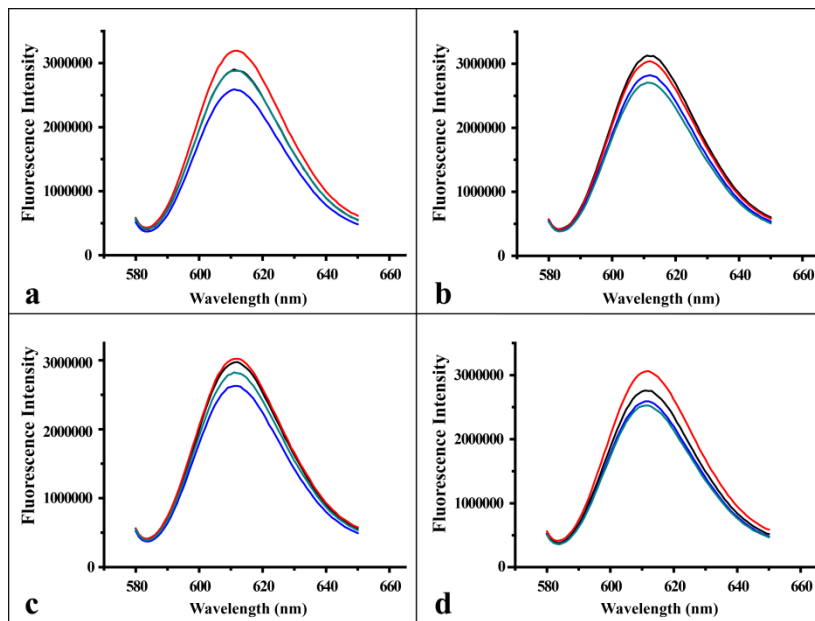


Fig.S4 Fluorescence emission spectra of SRh 101 doped magnetic fluorescent microspheres with different writing-erasing cycles. (a) MS0-MF, (b) MS1-MF, (c) MS2-MF, (d) MS3-MF. Each sample was independently prepared and recorded for four times.

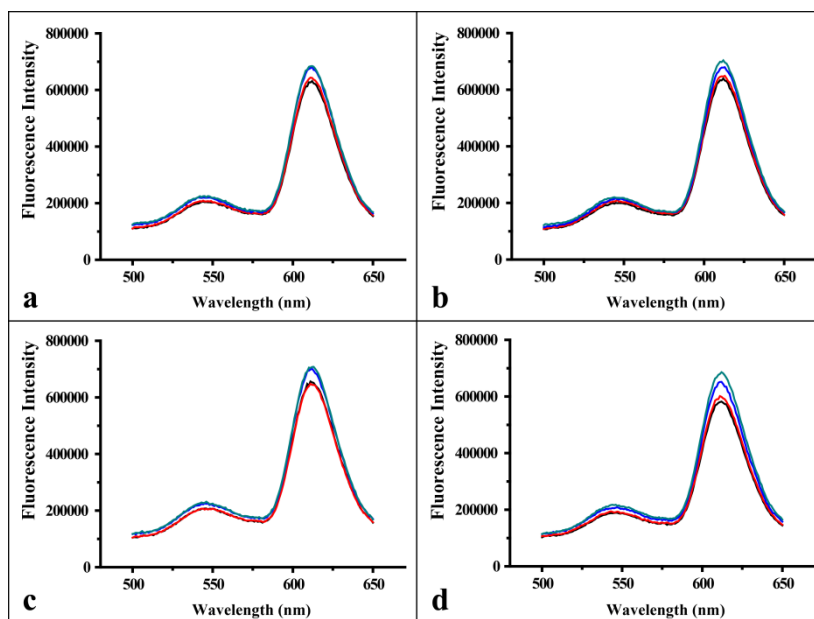


Fig.S5 Fluorescence emission spectra of Rh 110-SRh 101 dual-doped magnetic fluorescent microspheres with different writing-erasing cycles. (a) MS0-MF, (b) MS1-MF, (c) MS2-MF, (d) MS3-MF. Each sample was independently prepared and recorded for four times.

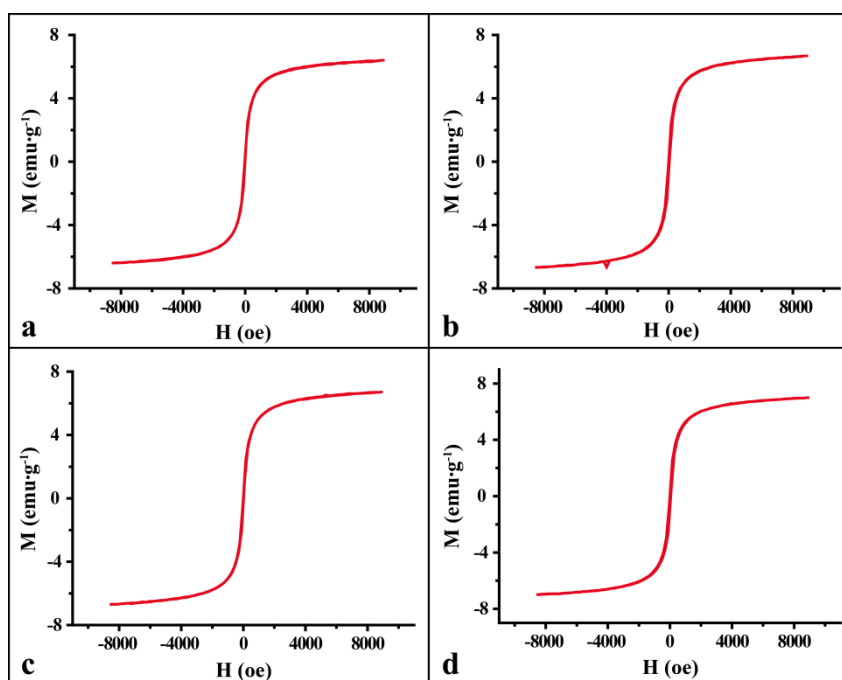


Fig.S6 Magnetic hysteresis loops of magnetic fluorescent MS-MF microspheres with different writing-erasing cycles. (a) MS0-MF, (b) MS1-MF, (c) MS2-MF, (d) MS3-MF.

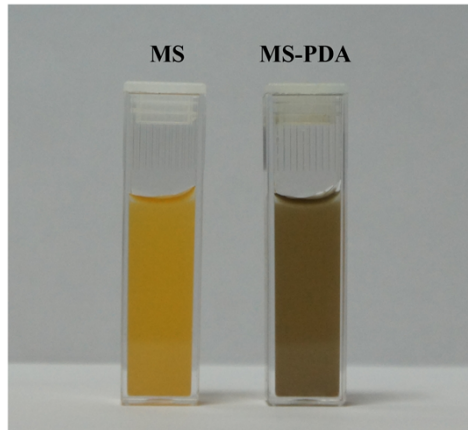


Fig.S7 The photographs of recycled magnetic MS microspheres and MS microspheres modified with polydopamine coating (MS-PDA).