SUPPORTING INFORMATION

Fe Doped CdTeS Magnetic Quantum Dots for Bioimaging

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I. Structural details of mouse phantom used in optical imaging.

XFM-2 Fluorescent Phantom details: The fluorescent phantom used in the experiment has two locations, sources A and B, where the sample tubes can be inserted. Their locations can be described as follows: Source A Depth (mm) Dorsal 7.2, Ventral 9.5, Axial 17.7, Lateral 18.6; Source B Depth (mm) Dorsal 18.2, Ventral 3.9, Axial 32.7, Lateral 13.6.

II. DLS measurements of the QDs.

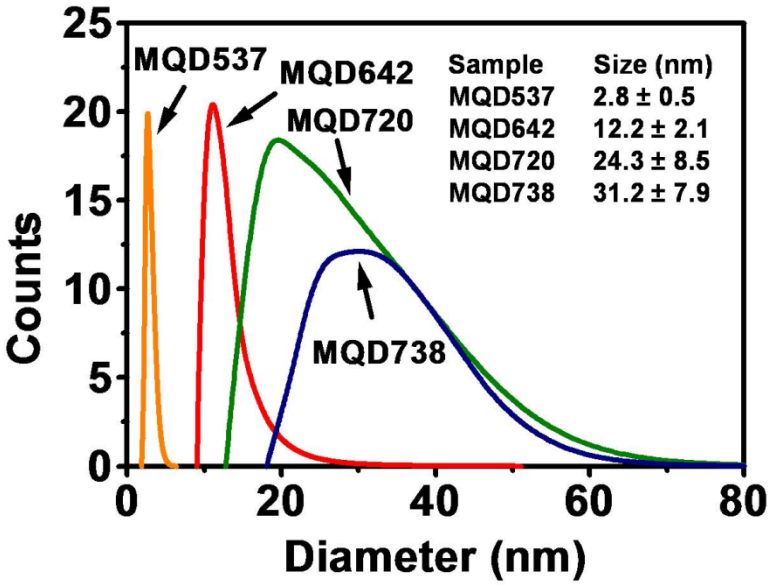

Figure S1. Size distribution of MQD537, MQD642, MQD720 andMQD738 using DLS.

III. Elemental composition of MQDs obtained using ICP, EDS

Table S1. Elemental composition (atomic%) of MQD738 obtained using ICP and EDS.

	Cd	Te	Fe	S
ICP	44.4±0.3	11.1±0.2	5.6±0.1	39.0
EDS	49.4±1.1	10.8±0.7	4.5±0.7	35.4±0.8

Table S2. Elemental composition (atomic%) of MQD730 obtained using ICP and EDS.

	Cd	Te	Fe	S
ICP	46.9±1.5	10.6±0.3	3.1±0.1	39.4
EDS	51.6±0.8	9.7±1.9	-	38.8±1.9

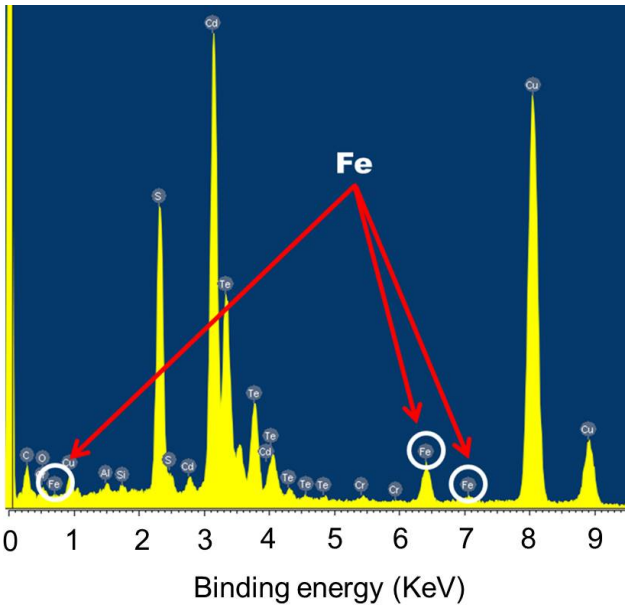

Figure S2. EDS spectra for the Fe doped MQDs emitting at 738 nm.

Table S3. Elemental composition (atomic%) of undoped QDs obtained using ICP.

	Cd	Te	S
QD630	50	24.2	25.8
QD675	50	16.1	33.9
QD711	50	11.4	38.7

IV. XPS spectra of MQDs

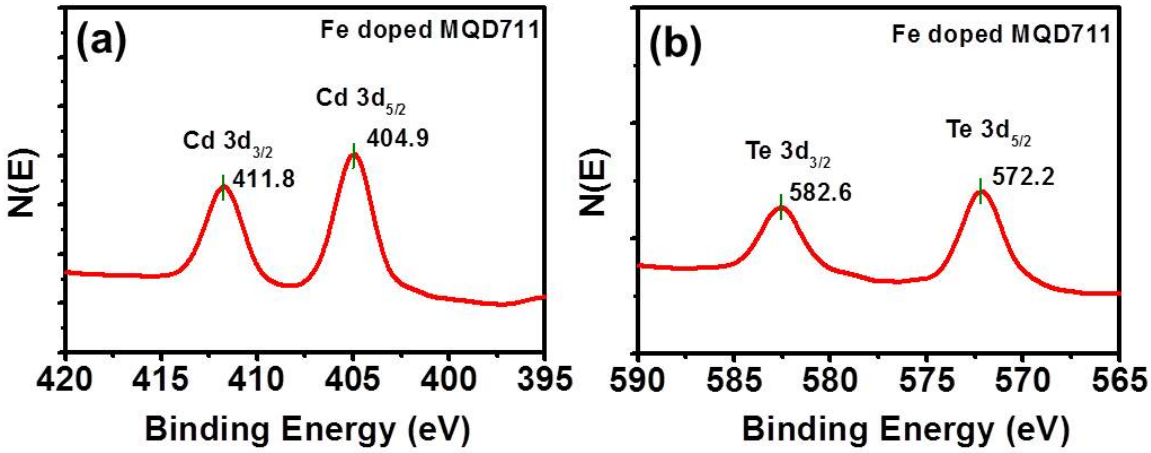

Figure S3**.** XPS spectra of (a) Cd (3d) (b) Te (3d) of Fe doped MQD711 obtained after Ar sputtering for 10 minutes.

V. Magnetometry measurements using SQUID

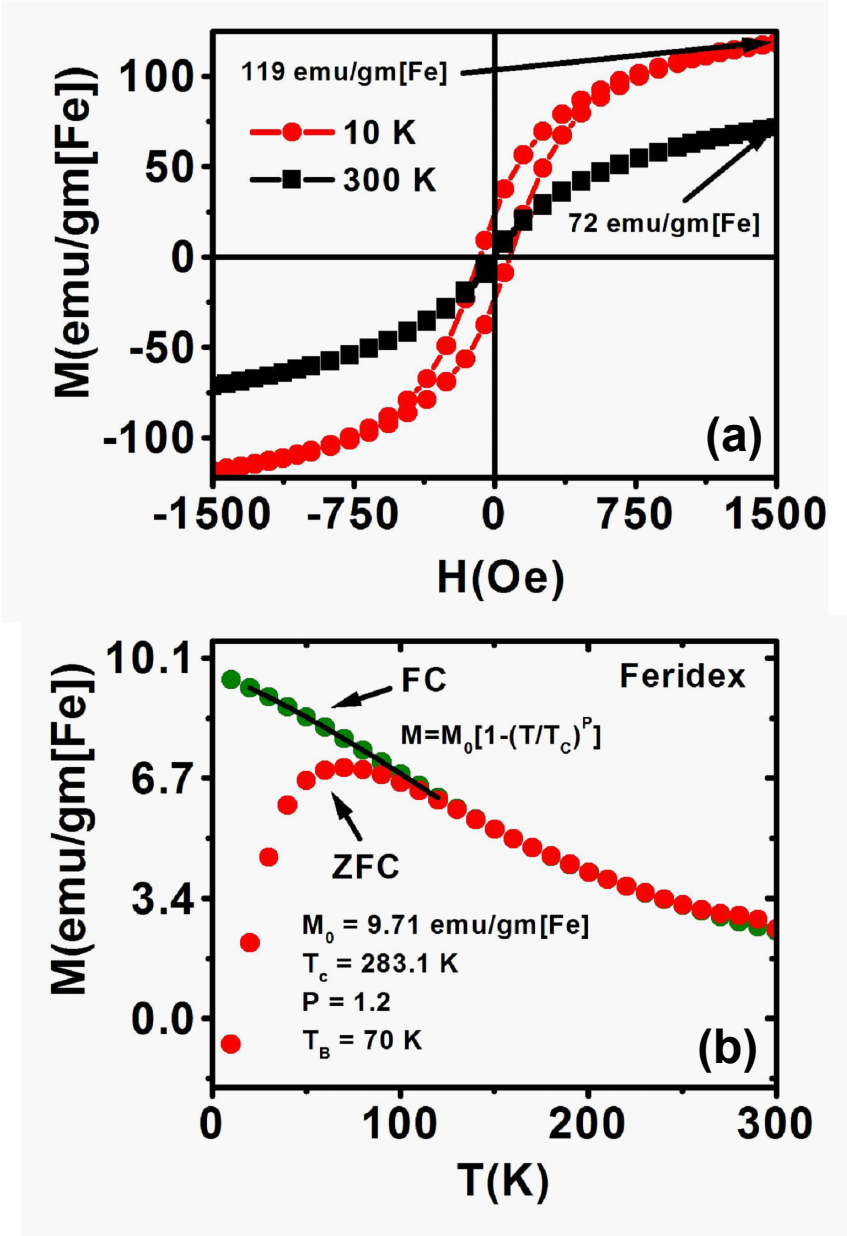

Figure S4. (a) Magnetometry measurements using SQUID at 10K and 300K for Feridex® I. V. NPs per unit iron. (b) Temperature dependent magnetization of Feridex® NPs measured at a constant magnetic field of 80 Oe.

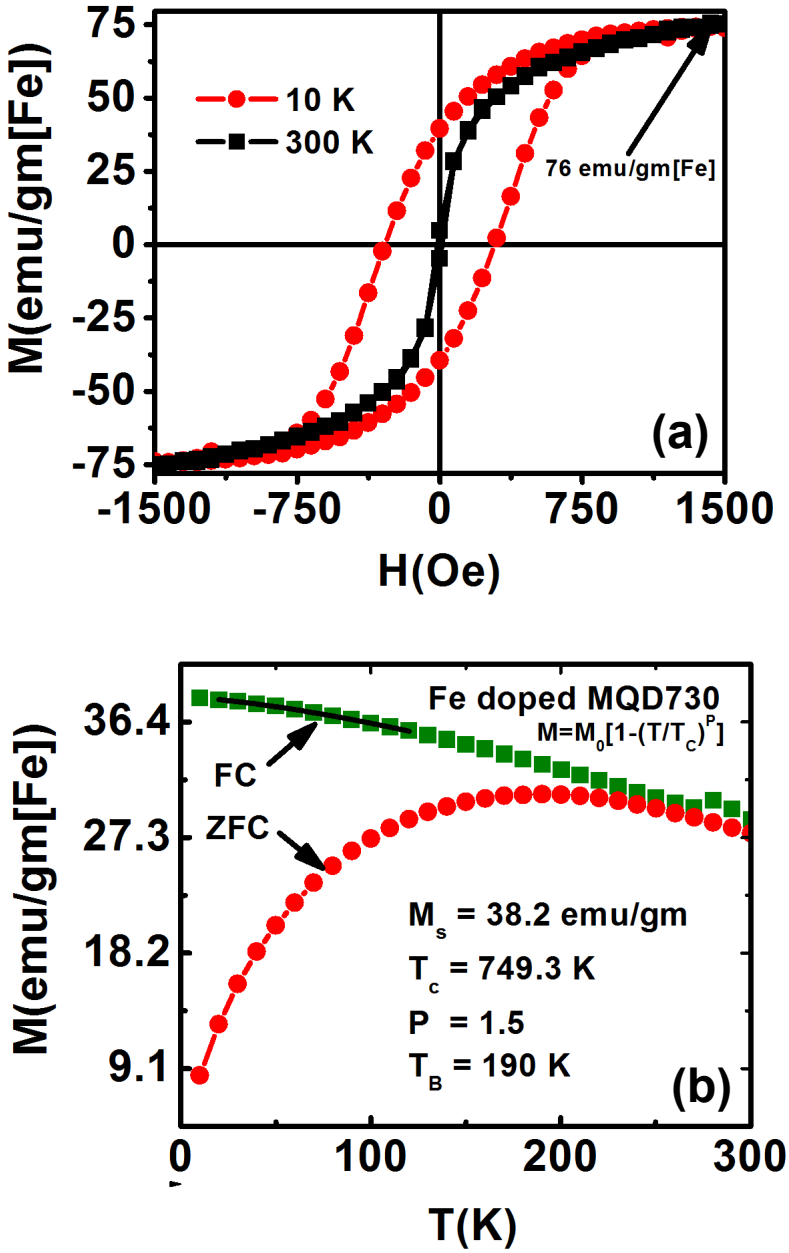

Figure S5. (a) Magnetometry measurements using SQUID at 10K and 300K of MQD730 per unit iron. (b) Temperature dependent magnetization of 730 nm emitting MQDs measured at a constant magnetic field of 80 Oe.