Hepatic Fibrosis Diagnose by Synergistic Magnetic Resonance and Near-Infrared Imaging with dual-modality nanoparticles

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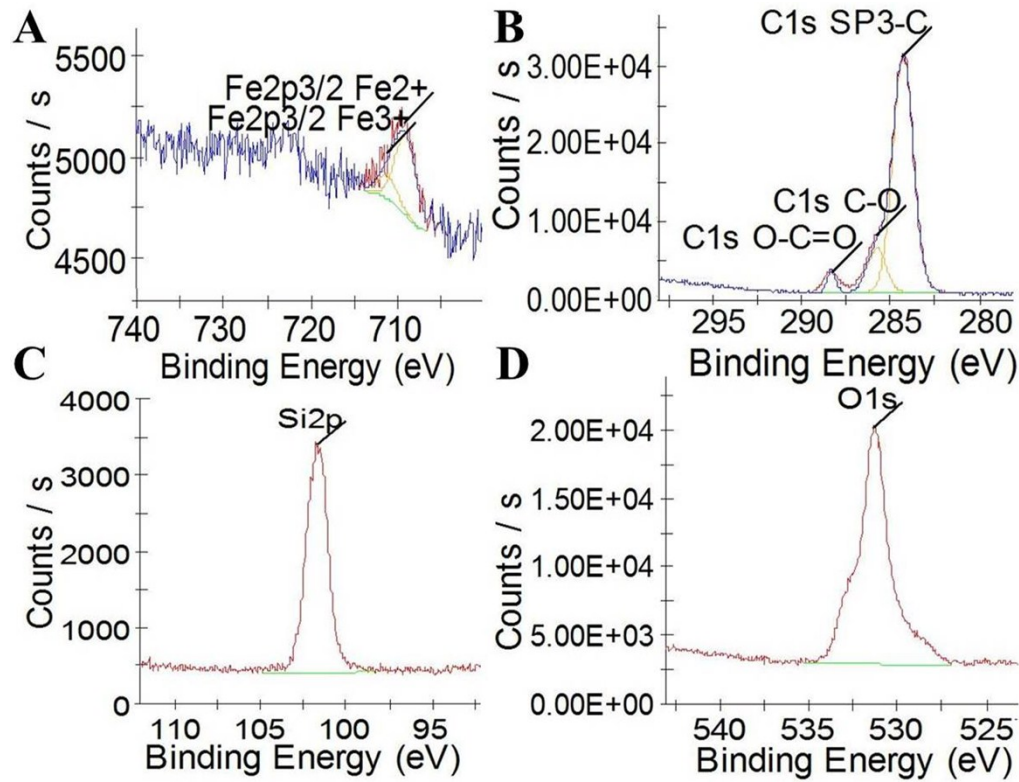Professor and Director, Beijing Key Laboratory of Molecular Imaging
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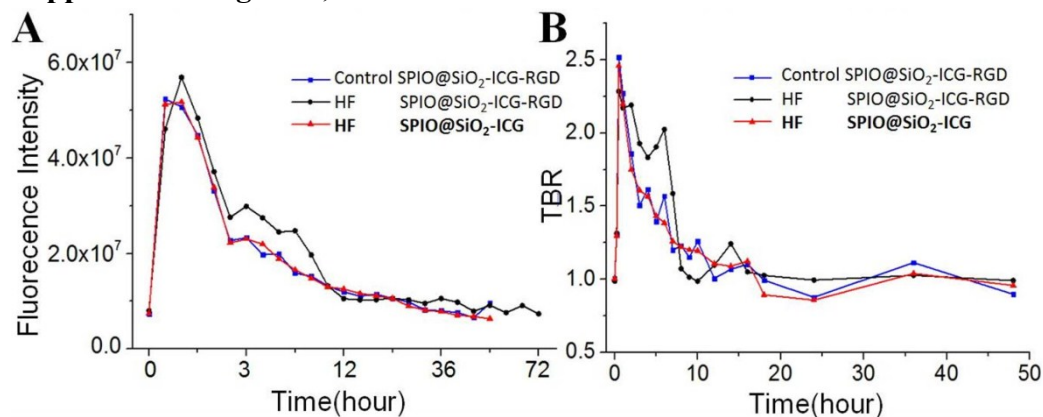Email: jie.tian@ia.ac.cn
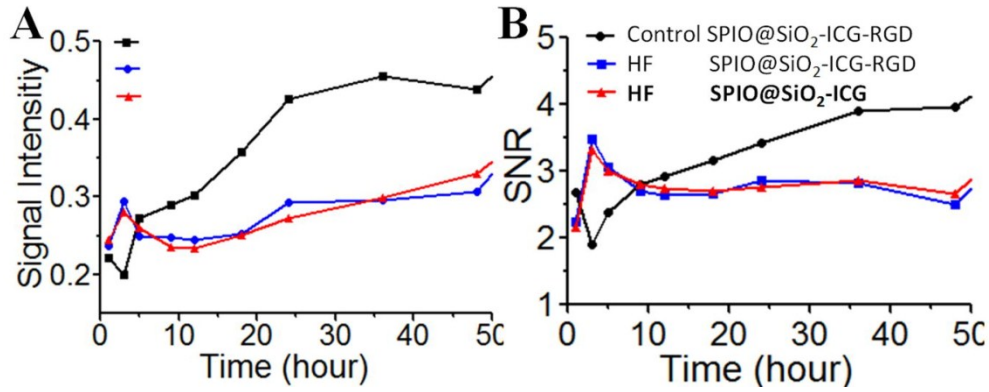
Supporting Information

Supplemental Figure1.

Supplemental Figure 1. The XPS high-resolution spectra of Fe2p(A), C1s(B), Si2p(C) and O1s(D) from the fractured surfaces of theSPIO@SiO2.

Supplemental Figure 2, 3

Supplemental Figure 2: *In vivo* biodistribution of the fluorescence intensity of SPIO@SiO2-ICG for hepatic fibrosis mouse models. (A) The fluorescence intensity profile of theSPIO@SiO2-ICG (red line). (B) The target to background ratio (TBR) profiles of the SPIO@SiO2-ICG (red line).

Supplemental Figure 3: *In vivo* biodistribution of MR intensity of SPIO@SiO2-ICG for hepatic fibrosis mouse models. (A, B) The MRI intensity profiles of the SPIO@SiO2-ICG (red line).

Supplemental Table 1: Serum Biochemical Analysis (meam±SD)

	Treatment group	Control group	*P* value
Aspartate aminotransferase (U/L)	74.33±128.75	81.70±71.06	0.072
Alanine aminotransferase (U/L)	50.97±44.24	15.27±11.48	0.006
Total bilirubin (μmol/L)	24.83±12.29	12.13±8.43	0.214
Direct bilirubin (μmol/L)	0.83±0.64	1.03±0.68	0.730
Total protein (g/L)	75.40±16.44	64.67±4.38	0.336
Albumin (g/L)	32.10±4.06	30.93±1.27	0.659
Globulin (g/L)	43.30±12.44	33.73±5.58	0.291
Gamma-glutamyltranspeptidase (U/L)	14.80±14.58	2.80±3.94	0.410
Alkaline phosphatase(ALP) (U/L)	36.60±3.99	63.43±53.30	0.475
Creatinine kinase (U/L)	9.12±1.50	9.91±0.71	0.238
Urea (mmol/L)	24.20±12.61	11.97±8.61	0.458
Uric acid (μmol/L)	51.93±22.05	78.50±35.25	0.331
Glucose (mmol/L)	13.50±5.53	14.09±2.24	0.873
Cholesterol (mmol/L)	2.32±0.06	2.08±0.49	0.444
Na (mmol/L)	137.37±8.35	142.23±2.63	0.390
Cl (mmol/L)	98.90±5.67	103.50±1.71	0.250

*p<0.05