Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

SUPPLEMENTARY INFORMATION

Unravelling the onset of the exchange bias effect in Ni(core)@NiO(shell) nanoparticles embedded in a mesoporous carbon matrix

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1. Size distribution of the nanoparticles

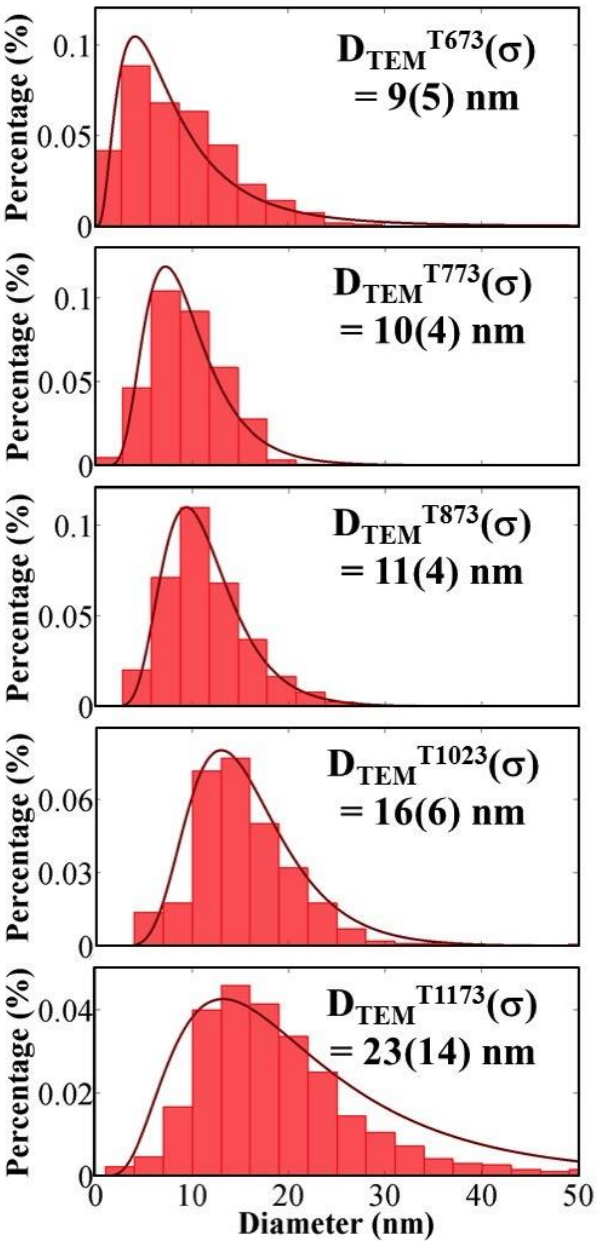

Figure S1. (Color online) Histograms of the particle size distributions of the samples together with log-normal fits, providing mean NP diameters (D_{TEM}) and standard deviations (σ).

2. *M*(*H*) curves measured at *T* = 300 K

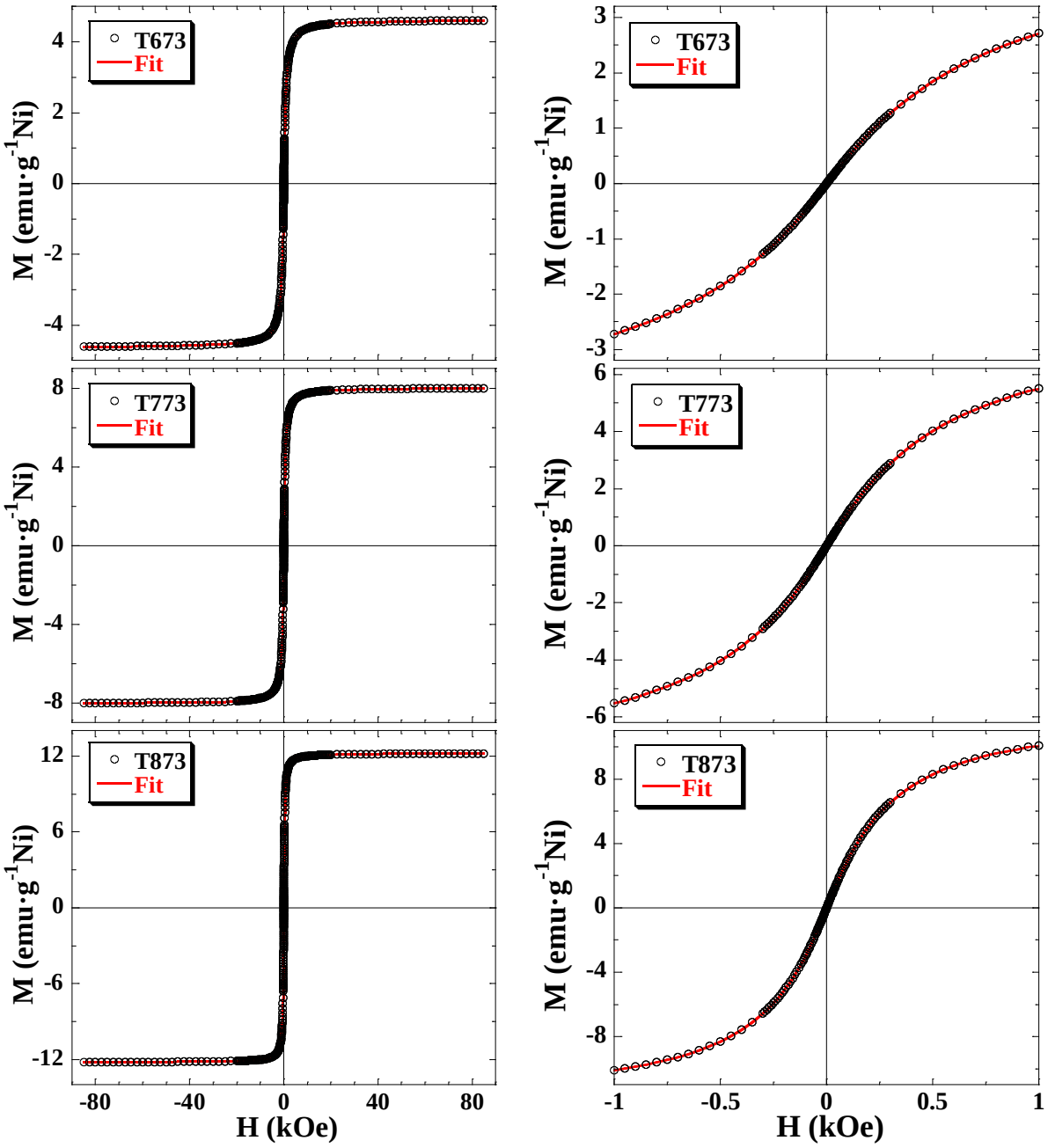

Figure S2. (Color online) (Left) *M*(*H*) curves for samples T673, T773 and T873 (empty circles) measured at room temperature (*T* = 300 K). Lines represent the best fit of the experimental data to a combination of the Langevin function and the lognormal size distribution.[60] (Right) Enlarged views of the central part of the left *M*(*H*) curves.

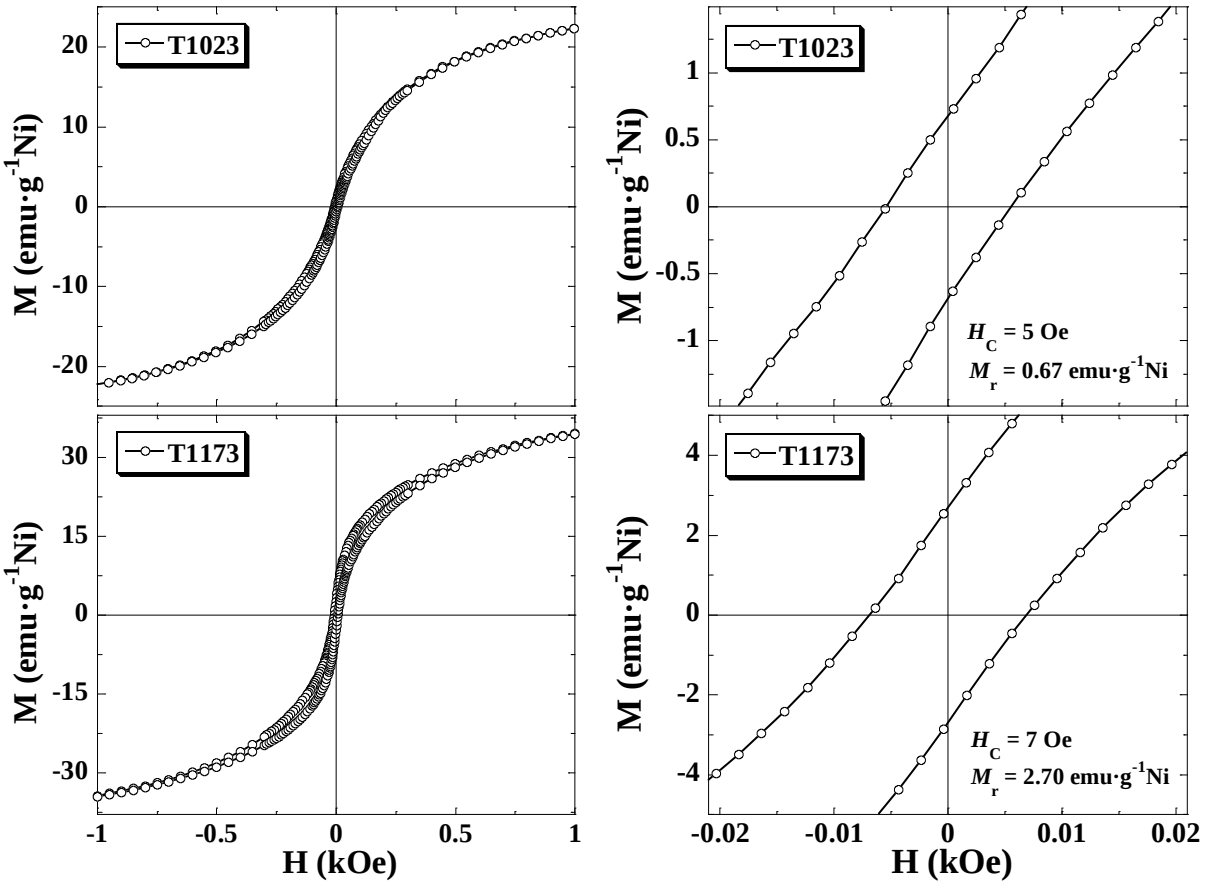

Figure S3. (Color online) (Left) *M*(*H*) curves for samples T1023 and T1173 (empty circles) measured at room temperature (*T* = 300 K), showing a small hysteresis loop. Lines provide guides for the eyes. (Right) Enlarged views of the central part of the left *M*(*H*) curves.