

## Supporting information

### Size-dependent photoinduced interactions between ZnO nanocrystals and a nitronyl nitroxide radical Nit(*o*-OH)Ph

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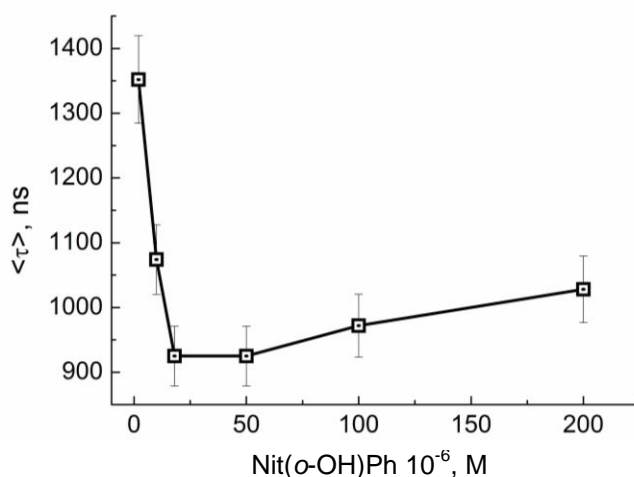


Fig. 1 The average radiative life time  $\langle \tau \rangle$  of ZnO NCs vs the molar concentration of Ni(*o*-OH)Ph radical.  $[\text{ZnO}] = 1 \times 10^{-3}$  M.

*Experimental details:* the photoluminescence decay profiles were obtained using an Edinburgh Instruments FLS920 photon counting system equipped with a EPL-375 picosecond diode laser emitting 60-ps pulses with  $\lambda = 375$  nm. The kinetic curves were approximated by linear combinations of three-four monoexponential functions  $I(t) = \sum A_i \exp(-t/\tau_i)$ , where  $i = 1..4$ ,  $A_i$  – amplitudes,  $\tau_i$  – time constants. The average radiative life time  $\langle \tau \rangle$  was calculated as

$$\langle \tau \rangle = \frac{\sum_i A_i \tau_i^2}{\sum_j A_j \tau_j}$$

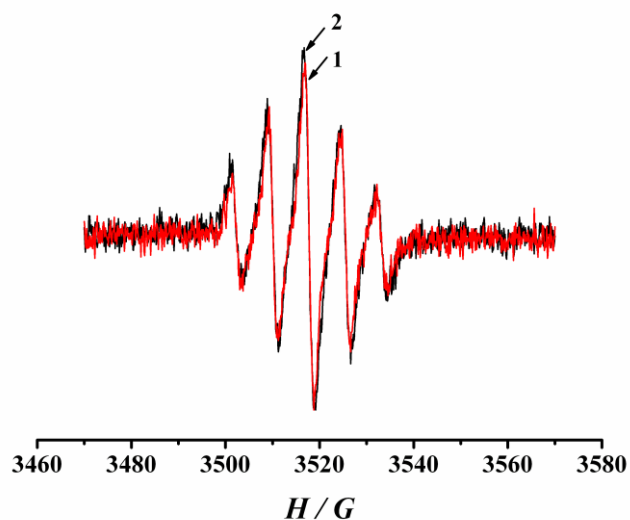


Fig. S2. EPR spectra of an ethanolic solution of Nit(*o*-OH)Ph (curve 1) and an ethanolic solution containing both Nit(*o*-OH)Ph and ZnO NCs (curve 2). The experiments were carried out at  $[\text{ZnO}] = 1 \times 10^{-2}$  M and  $[\text{Nit}(\textit{o}\text{-OH)Ph}] = 1 \times 10^{-4}$  M.

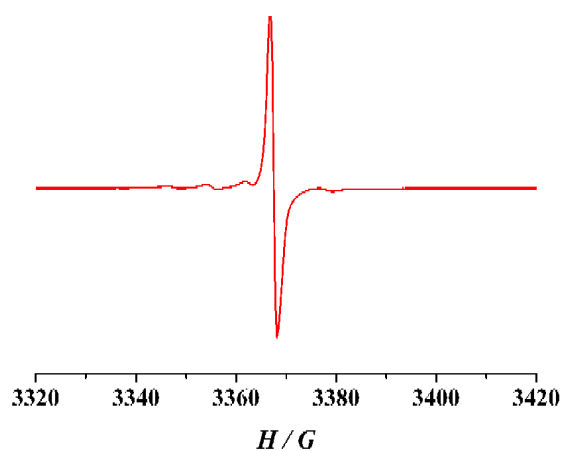


Fig. S3. EPR spectrum of an ethanolic solution of Nit(*o*-OH)Ph in presence of ZnO NCs and diphenylpicrylhydrazyl (DPPH) as inner standard.