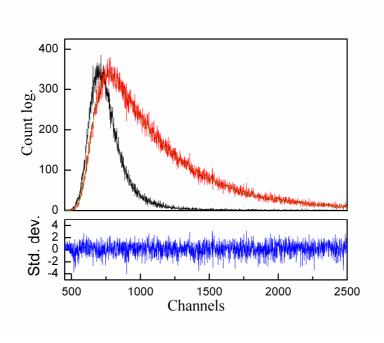
## **Supporting Information**

Sensing proteins with luminescent silica nanoparticles.
Loredana Latterini* and Matteo Amelia <sup>#</sup> .
Contribution from CEMIN-Centro di Eccellenza Materiali Innovativi Nanostrutturati, Dipartimento di Chimica, Università di Perugia, Via Elce di Sotto, 8, 06123 Perugia, Italy
Figures 5
* Corresponding author. Phone: +39-75-5855636; Fax: +39-75-5855598.

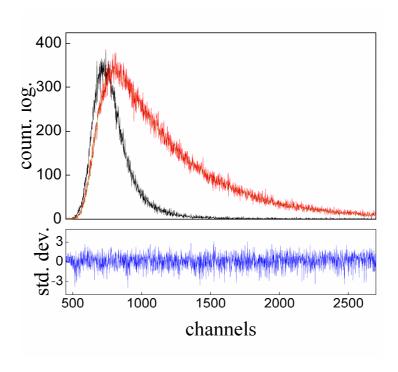
# Present address: Dipartimento di Chimica "G. Ciamician", Università di Bologna, Via Selmi 2,

E-mail: loredana@unipg.it (L. Latterini)

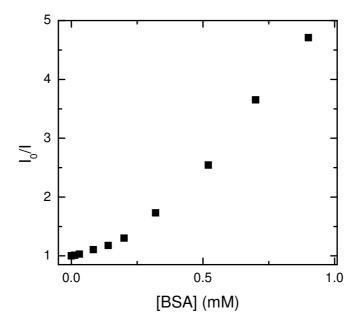
40126 Bologna (Italy).



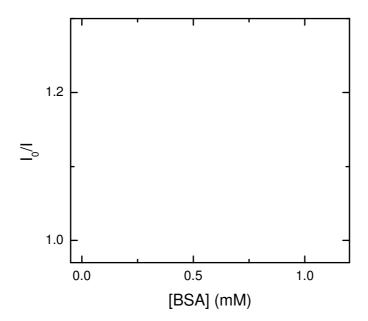
**Figure S1.** Fluorescence decay curve of perylene loaded silica nanoparticles (red) and source profile (black). The best-fitting curve (green) and residues (blue) are also reported.



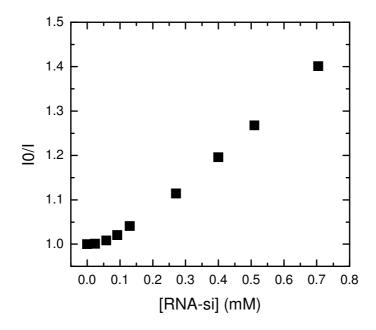
**Figure S2.** Fluorescence decay curve of 1,6 diphenyl-1,3,6-hexatriene loaded silica nanoparticles (red) and source profile (black). The best-fitting curve (green) and residues (blue) are also reported.



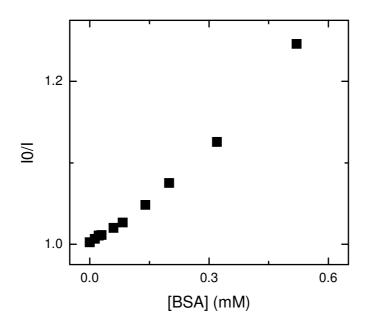
**Figure S3.** Stern-Volmer plot of perylene loaded silica nanoparticles fluorescence in the presence of increasing BSA concentrations (pH=6)



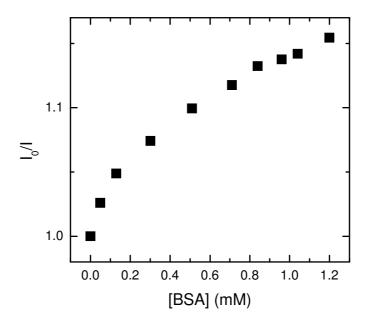
**Figure S4.** Stern-Volmer plot of perylene loaded silica nanoparticles fluorescence in the presence of increasing BSA concentrations (pH=3)



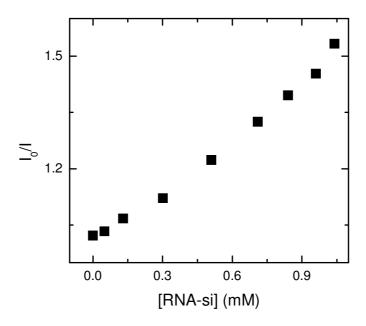
**Figure S5.** Stern-Volmer plot of perylene loaded silica nanoparticles fluorescence in the presence of increasing RNA-si concentrations.



**Figure S6.** Stern-Volmer plot of DPH loaded silica nanoparticles fluorescence in the presence of increasing BSA concentrations (pH=6)



**Figure S7.** Stern-Volmer plot of DPH loaded silica nanoparticles fluorescence in the presence of increasing BSA concentrations (pH=3)



**Figure S8.** Stern-Volmer plot of DPH loaded silica nanoparticles fluorescence in the presence of increasing RNA-si concentrations.