OMICSGroup
C o n f e r e n c e s
Accelerating Scientific Discovery

International Conference and Exhibition on
Nanotechnology & Nanomedicine
March 12-14, 2012 Omaha Marriott, USA

TITLE

Easy detection of pM porphyrin concentrations using silver nanoparticles

Karolina Siskova

Palacky University, Czech Republic

Silver nanoparticles are well known for their unique optical properties in the visible spectral region. They can serve as efficient enhancers of Raman scattering of adsorbed molecules. Porphyrins are biologically and medically important species. In order to detect their native forms and avoid self-aggregation for instance, it is necessary to work at low porphyrin concentrations. In this contribution, it is shown that using silver nanoparticles generated by "green" methods the porphyrin concentrations as low as 10^{-13} M can be reached repeatedly in aqueous solutions.

Biography

Karolina Siskova has completed her French-Czech Ph.D in 2006 from Pierre et Marie Curie University, Paris VI, France, and from Charles University in Prague, Czech Republic. She has spent her postdoctoral studies in the Institute of Macromolecular Chemistry in Prague. She was awarded by Fulbright scholarship in 2007 and moved to the USA for a 10-months stay. Currently, she works as assistant professor and junior researcher at Dept. of Physical Chemistry, Palacky University, Olomouc, Czech Republic. She has published more than 15 papers in reputed journals, one chapter in a book and serves as reviewer of many ACS journals.Czech Republic. She has published more than 15 papers in reputed journals, one chapter in a book and serves as reviewer of many ACS journals.