Project: Dendrimers based sensing technologies

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Period of STMS (begin- and end date): 2014-09-21 to 2014-09-28
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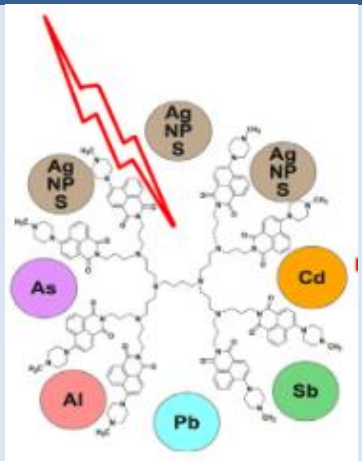

Aims & subject of work:

Dendrimers are a relatively new class of star-shaped polymers. The poly (propylene amine) (PPA) is a new class of commercial dendrimers. The design and modification of the PPA dendrimers with fluorescent units could provide new interesting properties. In this STSM study we have focused on synthesizing new dendrimers, which are selective to metal ions and then use these dendrimers for development of new, analyze strategies using Raman spectroscopy.

Argumentation of necessity of STSM:

Meal selective new dendrimer molecules, were combined our analytical system. for metal ion detection in water.

Workplan/timeschedule followed:

- Coordination a study for developpment of new biosensor and bioassay for detection of metal ions
- Preparation SERS substrate using diffenrent support material
- Investigation of silver and gold nanoparticles on signal enhancement.

Main results and outcome:

New strategy was designed for metal ion detection. In this strategy; a test strips will be produced with dendrimer. Metal ion concentration was analyzed by processing of Raman spectrum. Synthesizing of the dendrimers were done in this STSM period and experimental works continues in both research laboratories.