MARIE-SKLODOWSKA CURIE POSTDOC POSITION IN HYBRID MATERIALS

The Department for Materials Synthesis at Jožef Stefan Institute, Ljubljana, Slovenia is looking for a Postdoctoral candidate to apply for the 2018 call of the European Commission MSCA Individual Fellowship.

The proposed project aims to develop new magneto-electric hybrid materials. The new hybrids will enable a significant advancement in the sensor applications of ferromagnetic liquids, developed at our institute (Nature, 2013).

Tasks and responsibilities of the candidate:

* synthesis of organic ligands
* hybridization of inorganic nanoparticles with organics via colloidal processing
* characterization of the synthesized materials

Requirements for the candidate:

* PhD degree in Chemistry or Materials Science
* Experience in one or more of the following fields: organic synthesis and characterization, colloidal chemistry and processing, coordinative chemistry, materials synthesis
* High motivation for interdisciplinary research, team work and communication skills
* Transnational Mobility Requirement: Researchers must have not resided or carried out their main activity (work, studies,…) in Slovenia for more than 12 months in the last 3 years prior to the call deadline (12. 9. 2018)

Selected references:

* Ferromagnetism in suspensions of magnetic platelets in liquid crystal. *Nature*, 2013, 504, 237-241, doi: [10.1038/nature12863](https://doi.org/10.1038/nature12863)
* Spontaneous liquid crystal and ferromagnetic ordering of colloidal magnetic nanoplate. *Nature Comm*, 2016, 7, 10394, doi: [10.1038/ncomms10394](https://doi.org/10.1038/ncomms10394).
* Chemical substitution - an alternative strategy for controlling the particle size of barium ferrite. *Cryst. growth & design*, 2012, 12, 5174-5179, doi: [10.1021/cg301227r](https://doi.org/10.1021/cg301227r)
* Anisotropic magnetic nanoparticles: a review of their properties, syntheses and potential applications. *Prog. Mater. Sci.*, 2018, 95, 286-328, doi: [10.1016/j.pmatsci.2018.03.003](https://doi.org/10.1016/j.pmatsci.2018.03.003).

Applications with CV, bibliography and reference letter are to be submitted until 18. 7. 2018 to Prof. Dr. Darja Lisjak: darja.lisjak@ijs.si