Anna Kozina

Direccion laboral: Instituto de Física, Circuito de la Investigación Científica Ciudad Universitaria, 04510 México
Telefono laboral: -
Email: anna.kozina@fisica.unam.mx
Nombramiento: - Plaza posdoctoral

Formacion academica

University of Freiburg, Inst. of Physical Chemistry, Germany *May 2009*
Ph. D. in Physical Chemistry: 'Crystallization kinetics and viscoelastic properties of colloid binary mixtures with depletion attraction'.

D.I. Mendeleev University of Chemical Technology, Moscow, Russia *February 2005*
High university scholarship and diploma with honours on specialty 'Technology of pharmaceutical and cosmetic products'. Diploma topic: 'Creation and investigation of gel compositions on base of polysaccharides and alpha-hydroxyl acids'

Experiencia docente

Teaching Assistant *April 2006 – March 2009*
University of Freiburg, Inst. of Physical Chemistry, **Germany**

- Advanced lab course in physical chemistry
- Lectures and lab course in 'Introduction into Light Scattering'
- Supervision of under-graduate students

Experiencia laboral

Invited Researcher *November 2011*
Institute of Physics, National University of Mexico (UNAM), Mexico D.F., Mexico

- Synthesis and characterization of 'Janus' particles
- Phese behavior and self-assembling of 'Janus' particles on interfaces and in bulk.

Invited Researcher *November 2010 – November 2011*
Chemistry Department, National Institute of Nuclear Investigations (ININ), Estado de Mexico, Mexico

- Synthesis and characterization of a chemical library of silicalite type for environmental application
- Controlled reaction of hydrogenation using metal oxides as an alternative hydrogen source

Invited Researcher *November 2009 – November 2010*
Laboratory of Nanotechnology for Medicine, National Institute of Neurology and Neurosurgery, Mexico D.F., Mexico

- Research and development of nanostructured reservoirs for controlled drug delivery of antiepileptic drugs

Publications

T. Lopez, K. Espinoza, A. Kozina, A. Galano, and R. Alexander-Katz. *'Role of hydrolysis degree in the drug-matrix interactions of nanosized sol-gel titania reservoirs for epilepsy treatment'*, J. Phys. Chem. C, **114**, 20022, **2010**.

T. Lopez, L. Albarran, A. Galano, K. Espinoza, A. Kozina, and F. Rodriguez. *'Comparison of nanostructured titania matrices obtained by carbon template and sol-gel methods for controlled release of fluoxetine'*, J. Nanosci. Nanotechnol, **11**, 1-7, **2011**.

T. Lopez, K. A. Espinoza, A. Kozina, P. Castillo, A. Silvestre-Albero, F. Rodriguez-Reinoso, and R. Alexander-Katz. *'Influence of water/alkoxide ratio in the Synthesis of Nanosized Sol-Gel Titania on Release of Phenytoin'*, Langmuir, **27(7)**, 4004-4009, **2011**.

T. Lopez, A. Kozina, E. Ortiz-Islas, K. A. Espinoza, R. Gonzalez. *'In-situ release of antiepileptic drugs from nanostructured reservoirs'*, in F. S Kaneez (ed.) "Underlying Mechanisms of Epilepsy", Intech, Croatia, **2011**.

A. Kozina, P. Diaz-Leyva, Ch Friedrich, and E. Bartsch. *'Structural and Dynamical Evolution of Colloid-Polymer Mixtures on crossing Glass and Gel Transition as seen by Optical Microrheology and Mechanical Bulk Rheology'*, Soft Matter, **8**, 1033-1046, **2012**.

A. Kozina, D. Sagawe, P. Díaz-Leyva, E. Bartsch, and T. Palberg. *'Polymer-Enforced Crystallization of a Eutectic Binary Hard Sphere Mixture'*, Soft Matter, **8**, 627-630, **2012**.

A. Kozina, K. A. Espinoza, E. Ortiz-Islas, and I. A. Rivero. '*Effect of Thermal Treatment of Sol-Gel Titania Reservoirs on Release Kinetics of Phenytoin',* submitted to J. Am. Ser. Soc.

T. Lopez, A. Kozina, E. Ortiz-Islas, K. A. Espinoza. *'In situ controlled release of dopamine for treatment of Parkinson's disease'*, in X.-J. Liang (ed.) 'Nanopharmaceuticals: The Pharmaceutical Application of Nanotechnology', World Scientific Publishing, **2012**.

A. Kozina, P. Diaz-Leyva, and V. E. Kim. 'Rheological properties of Xanthan and Hydroxyethylcellulose in extremely acidic mediums of alpha hydroxyl acids', submitted to Pol. Int.