

Dr. Gabriela Ambrožič

Present position

Assistant professor, Department of Physics at the University of Rijeka.
Senior Research Associate, Laboratory for Macromolecular Research, Centre for Micro and Nano Sciences and Technologies.

Past experience

2010 – 2014: Research Associate, Centre of Excellence Polimat, Ljubljana, Slovenia.
2009 – 2012: Research Associate, Laboratory for Polymer Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia.
2006 - 2008: Researcher, Lek Pharmaceuticals Ltd, Biopharmaceuticals, Ljubljana, Slovenija
2002 -2003: postdoctoral fellow, Dipartimento di Scienze Farmaceutiche, University of Trieste, Italy
2002 -2005: Doctoral assistant, Laboratory for Polymer Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia.
1997-2002: assistant, PhD student, Laboratory for Polymer Chemistry and Technology, National Institute of Chemistry, Ljubljana, Slovenia.

Relevant experience:

Actively participated on several european and slovenian research and industry projects. Co-author of different scientific publications and patents.

Past research interests: Synthesis and characterization of polymer nanocomposites and hybrid materials with bactericidal properties. Sol-gel synthesis and characterization of ZnO nanoparticles. Synthesis and characterization of liquid crystals for applications in optical devices. Synthesis and characterization of the polymer for a controlled release of therapeutic drug. Synthesis and characterization of fluorophore markers for application in medical diagnostics. Studies of hydrogen bonding in polymer and biological systems.

List of five chosen recent publications:

- 1 **G. Ambrožič**, J. Šribar, S. D. Škapin, M. Žigon, Z. Crnjak Orel, An Antibacterial Macroporous Polyurethane Hybrid Material with a High Content of Zinc Ions: A Template to Uniform ZnO Nanoparticles, *Mater. Res. Bull.* **48** (2013), 1428-1434.
- 2 **G. Ambrožič**, I. Djerdj, S. D. Škapin, M. Žigon, Z. Crnjak Orel, The double role of p-toluenesulfonic acid in the formation of ZnO particles with different morphologies, *CrystEngComm* **12** (2010) 1862-1868.
- 3 V. Domenici, **G. Ambrožič**, M. Čopič, A. Lebar, I. Drevenšek Olenik, P. Umek, B. Zalar, B. Zupančič, M. Žigon, Interplay between nematic ordering and thermomechanical response in a side-chain liquid single crystal elastomer containing pendant azomesogen units, *Polymer* **50** (2009) 4837-4844.
- 4 **G. Ambrožič**, M. Žigon, Supramolecular liquid-crystalline polyurethane, *Macromol. Rapid Commun.* **21** (2000) 53-56.
- 5 J. Stare, A. Jezierska-Mazzarello, **G. Ambrožič**, I. J. Košir, J. Kidrič, A. Koll, J. Mavri, D. Hadži, Density functional calculation of the 2D potential surface and deuterium isotope effect on ^{13}C chemical shifts in piccolinic acid N-oxide: comparison with experiment *J. Am. Chem. Soc.* **126** (2004) 4437- 4443.