

# Curriculum vitae

## Personal details:

**Name:** Msc. Sobolciak Patrik, PhD.  
**Date of birth:** 17<sup>th</sup> May 1984  
**Address:** Qatar University  
Center for Advanced Materials  
P.O. Box: 2713  
Doha-Qatar  
**Mobile:** +974 5596 2378  
**E-mail:** patrik@qu.edu.qa



## Working experience:

**Since May 2013** Post-Doctoral Researcher on the Research Project NPRP 4-465-2-173:  
*“New phase change materials with improved heat transfer properties”*,  
Qatar University  
Center for Advanced Materials  
P.O. Box: 2713  
Doha-Qatar

**2012-2013** Researcher,  
Polymer Institute of the Slovak of Academy Sciences  
Department for Biomaterials research  
Dúbravská cesta 9,  
845 41 Bratislava  
Slovak Republic

## Working expertise:

phase change materials, preparation and analysis of nanocellulose, synthesis of monomers, polymers and peptides, synthesis of hydrogels, kinetics of radical polymerization, pulsed-laser polymerizations and determination of propagation rate coefficients, characterization of monomers and polymers, modification of polymeric materials, size-exclusion chromatography, NMR-spectroscopy, FTIR-spectroscopy dynamic laser scattering, zeta potential, UV-spectroscopy, thermal conductivity, differential scanning calorimetry

## Outputs:

3 CC publications and 12 conference participations (see appendix)

## Awards

Prize of the Minister of Education of the Slovak Republic for scientific research team of 2010

The award of the second best research poster in Materials Science and Engineering Symposium, Doha, Qatar, 2014

## **Membership:**

The member of the COST Action TD0906,  
The member of the Slovak Chemical Society

## **Education:**

**2008 - 2012** PhD. in Macromolecular Chemistry  
Polymer Institute of the Slovak Academy of Sciences  
Department for Biomaterials research  
Dúbravská cesta 9, 845 41 Bratislava  
Slovak Republic

Dissertation thesis: *Synthesis and properties special materials based on water-soluble polymers*

**2006 - 2008** Msc. in Environmental chemistry  
Comenius University in Bratislava  
Faculty of Natural Sciences  
Department of Environmental chemistry,  
Mlynská dolina, 842 15 Bratislava 4  
Slovak Republic

**2002 – 2006** Bc. in Bioorganical chemistry  
Comenius University in Bratislava  
Faculty of Natural Sciences  
Department of Environmental chemistry,  
Mlynská dolina, 842 15 Bratislava 4  
Slovak Republic

## **Skills:**

**Computer skills:** MS Office, Adobe Acrobat, Internet, Origin, ChemDraw, Outlook

**Languages:** Slovak – native, Czech- expert, English - advanced  
German - beginner

**Driving license:** Category B, 100 000 km

**Other skills:** reliable, communicative, creative, flexible, patient, open-minded and willingness to learn

**Hobbies:** books, sports, travelling

## Appendix

### CC publications:

- LACHHEB, Mohamed – KARKRI, Mustapha – ALBOUCHI, Fethi - BEN NASRALLAH, Sassi – MAGALI, Fois - SOBOLČIAK, Patrik. Thermal properties measurement and heat storage analysis of paraffin/graphite composite phase change material, Composites: Part B 2014, 66 518–525. (2,6 - IF2014).
- SOBOLČIAK, Patrik – ŠPÍREK, Mário – KATRLÍK, Jaroslav – GEMEINER, Peter – LACÍK, Igor - KASÁK, Peter. Light-switchable polymer from cationic to zwitterionic form: synthesis, characterization and interactions with DNA and bacterial cells, Macromol. Rapid Commun, 2013, 34, 635–63. (4,6 - IF2013).
- SOBOLČIAK, Patrik - KASÁK, Peter - LACÍK, Igor. Synthesis, Properties in Aqueous Systems and Applications. In Chemické listy 2011, 105, 918 - 925. (0,6 - IF2010).

### Conferences

- SOBOLČIAK, Patrik - STACH, Marek - KASÁK, Peter - CHORVÁT, Dušan - LACÍK, Igor. Určenie kinetických parametrov radikálovej polymerizácie sulfobetainových metakrylátových monomérov vo vodnom prostredí. In: 61. zjazd chemikov : Tatranské Matliare, 7. - 11, septembra 2009, 2009, roč. 5, č. 9, s. 187. ISSN 1336-7242.
- KASÁK, Peter - SOBOLČIAK, Patrik - STACH, Marek - CHORVÁT, Dušan - LACÍK, Igor. Study of kinetics of free radical polymerization and application of sulfobetaine methacrylic monomers. In Advances in Organic Chemistry : 29th Conference of Organic Chemists : Smolenice, SR, September 5 - 9, 2010 : book of abstract. - Bratislava : Comenius University Bratislava, 2010, p. 79.
- SOBOLČIAK, Patrik - STACH, Marek - KASÁK, Peter - CHORVÁT, Dušan - LACÍK, Igor. Propagation rate coefficients for free-radical polymerization of sulfobetaine methacrylic monomers. In BYPOS : 3rd Bratislava Young Polymer Scientists Workshop : game with molecules : Trenčianske Teplice, SR, June 7 - 10, 2010 : workshop book. - Bratislava : the Young Scientists Council of Polymer Institute of SAS, 2010, s. 33. ISBN 978-80-968433-7-4.
- KASÁK, Peter - SOBOLČIAK, Patrik - CHORVÁT, Dušan Jr. - LAHOVÁ, Monika - LACÍK, Igor. Svetlom imobilizovaný zwitteriónový polymér. In ChemZi 63. zjazd chemikov : Tatranské Matliare : 5. - 9. septembra 2011, 2011, roč. 7, č. 13, s. 220 - 221, ISSN 1336-7242.
- SOBOLČIAK, Patrik - STACH, Marek - KASÁK, Peter - CHORVÁT, Dušan Jr. - LACÍK, Igor. Assessment of propagation rate coefficient,  $k_p$ , of free radical polymerization of sulfobetaine and phosphobetaine methacrylic monomers. In ChemZi

: slovenský časopis o chémii pre chemické vzdelávanie, výskum a priemysel : 63.  
zjazd chemikov : Tatranské Matliare : 5. - 9. septembra 2011, 2011, roč. 7, č. 13, s.  
239. ISSN 1336-7242.

- KASÁK, Peter - SOBOLČIAK, Patrik - MOSNÁČEK, Jaroslav - STACH, Marek - CHORVÁT, Dušan - LACÍK, Igor. Study of kinetics of the free radical polymerization and application of zwitterionic methacrylic monomers. In Polymery 2010 : 6. česko-slovenská konference : Programová brožura konference : Liblice, 4. - 7. října, 2010, - Praha : ÚMCH AV ČR, 2010, p. 81 - 82, P-02. ISBN 978-80-85009-64-4.
- LACÍK, Igor - UČŇOVÁ, Lucia - KASÁK, Peter - STACH, Marek - SOBOLČIAK, Patrik - BUBACK, Michael - HESSE, Pascal - BEUERMANN, Sabine. Propagation kinetics of ionized monomers in aqueous solutions studied by PLP-SEC. In Macro 2010 : 43rd IUPAC World Polymer Congress Polymer Science in the Service of Society : Glasgow, UK, 11 - 16 July, 2010 : Abstract book and programme. - Cambridge, UK : RSC Publishing, p. [C11\_019].
- SOBOLČIAK, Patrik - LACÍK, Igor - KASÁK, Peter. Polyzwitterionic surface: preparation and properties. In 2th scientific meeting Biological and biomimetic adhesives : Mons, Belgium, 18 - 20 May 2011, - Mons, Belgium : Université de Mons, 2011, p. [ P10].
- KASÁK, Peter - SOBOLČIAK, Patrik - STACH, Marek - KRONEKOVÁ, Zuzana - LACÍK, Igor. Zwitterionic polymers - from kinetics to bioapplications. In Polymers on the Odra river : Opole, Poland, 6 - 7 July 2011 : book of abstracts. - Zabrze, Poland : Centre of Polymer and Carbon Materials, PAS Zabrze & Opole University, 2011, p.19.
- SOBOLČIAK, Patrik - STACH, Marek - CHORVÁT, Dušan Jr. - LACÍK, Igor - KASÁK, Peter. Pulsed laser technique in conjunction with size exclusion chromatography as tool for determination propagation rate coefficient of free-radical polymerization of zwitterionic monomers. In Proceedings of the 7th International Students Conference : Modern Analytical Chemistry : Prague, 29 - 30 September 2011, - Prague, Czech Republic : Charles University in Prague, Faculty of Science, 2011, p. 68 - 69. ISBN 978-80-7444-010-6.
- KASÁK, Peter - SOBOLČIAK, Patrik - STACH, Marek - KRONEKOVÁ, Zuzana - LACÍK, Igor. Zwitterionic polymer as tool against biofouling. In 2th scientific meeting Biological and biomimetic adhesives : Mons, Belgium, 18 -20 May 2011, - Mons, Belgium : Université de Mons, 2011, p.[O4].
- SOBOLČIAK, Patrik - , MRLÍK, Miroslav - PAVLÍNEK, Vladimír - LACÍK, Igor - KASÁK, Peter. Light tunable materials for controlled adhesion and release biomacromolecules Abstract book of the 1 st international conference on biological and biomimetic adhesives, 9. 11. 5.2012, Lisabon, Portugalsko, School of dentistry, University of Lisbon

- SOBOLCIAK, Patrik – KARKRI, Mustapha – KRUPA, Igor – AL MAADEED, Mariam. Thermal investigation of phase change materials based on linear low density polyethylene, paraffin wax and expanded graphite. Materials science and engineering symposium: Doha, Qatar, 18<sup>th</sup> February 2014, Center for Advanced Materials, Qatar University