RNDr. Dmitrij Bondarev, Ph.D.

Citizenship: Czech Republic

Address and contacts: permanent address: Heyrovského 4112, 430 03, Chomutov, Czech Republic.

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Languages: Fluent: Czech, Russian, English; Basic: German

Other skills: MS office, driving license, good presentation competences, teaching abilities, negotiation skills

Education and employment:

2001: Completed Master degree. Dept. of Physical and Macromolecular Chemistry, Faculty of Science, Charles University in Prague, Czech Republic
2001 - 2003: Institute of Macromolecular Chemistry (Czech Academy of Sciences), Prague, junior research fellow and PGS
2004-2005: Clinical research associate, Teacher, Translator
2006-2012 Scientific staff at Dept. of Physical and Macromolecular Chemistry, Faculty of Science, Charles University in Prague. Parallel to PGS.
2013: Ph.D. degree completed. Doctoral thesis: Synthesis and characterization of conjugated polymers containing fluorene and thiophene units. Dept. of Physical and Macromolecular Chemistry, Faculty of Science, Charles University in Prague, Czech Republic
2013 ï 2016: Tomas Bata University in Zlin, firstly post-doc position than lecturer/researcher - Faculty of Technology, Department of Polymer Engineering
2016 ï Polymer Institute SAS, Bratislava, Slovakia, Department of synthesis and characterization of polymers

Research areas, methods and activities:

Synthesis of **conjugated** polymers (polyarylenes, polythiophenes, conjugated polyelectrolytes, microporous polymers) and its composites (with nanoparticles, nanotubes, template synthesis). Modification of surfaces by chemical methods, synthesis of monomers. Catalytic processes, general organic and organometallic chemistry (synthesis, purification, analysis).

Characterization of both low-molecular-weight compounds and polymers (and its composites):
chromatography: SEC/HPLC/GC with various detectors
spectroscopy: UV-vis, Fluorescence, FTIR, NMR, Raman
microscopic techniques: SEM, AFM, fluorescence microscopy
thermal methods: thermogravimetric anylysis, DSC
ε-potential measurements and light scattering, cyclic voltammetry, surface analysis by sorption experiments

Preparation of samples, hand-on analysis, interpretation of collected data and experiments planning, publication of results.

Project activities:

* PŚprava a charakterizace nových konjugovaných polymerŢ pro optoelektronické aplikace
(**Preparation and characterization of new conjugated polymers for optoelectronic applications**)
Science Foundation of Charles University (GA UK), Project 313/2006 B CH
(co-author, co-researcher)

* PŚprava a charakterizace nových konjugovaných polyelektrolytŢ
(**Preparation and characterization of new conjugated polyelectrolytes**)
Science Foundation of Charles University (GA UK), Project 166 410 (author, principal applicant)

* Syntéza, charakterizace a studium vlastností polyelektrolytŢ a oligoelektrolytŢ
(**Synthesis, characterization and investigation of properties of polyelectrolytes and oligoelectrolytes**)
Science Foundation of Charles University (GA UK), Project 876 213 (author, co-researcher)

* Nové katalytické procesy pŚípravy organických materiálŢ pro fotoelektroniku
(**Advanced catalytic processes for preparation of organic photoelectronic materials**)
Czech Science Foundation (GAĻR), Project 104/09/1435 (co-researcher).

* Polyelektrolytové konjugované dynamery: pŚíprava, konstituļní dynamika a funkļní vlastnosti materiálŢ nového typu
(**Polyelectrolytic conjugated dynamers: preparation, constitutional dynamics and functional properties of new materials**)
Czech Science Foundation (GAĻR), Project P108/12/1143 (co-researcher)

* Heterogenní organické a hybridní nanokompozitní materiály pro solární ļlánky
(**Heterogeneous and hybrid nanocomposite materials for solar cells**)
Science Foundation of Czech Academy of Sciences (GAAV),
Project KAN 100500652 (co-researcher)

* Organické nanoporézní polymery odvozené od arylacetylenŢ jako materiály pro skladování vodíku
(**Organic nanoporous polymers derived from arylacetylenes as materials for hydrogen storage**)
Czech Science Foundation (GAĻR), Project GAP108/11/1661(co-researcher)

Pedagogical activity:

General Chemistry, tutorials (Charles University in Prague, 2006-2011)
Physical Chemistry, tutorials (Charles University in Prague, 2006-2007)
Macromolecular Chemistry I, tutorials (Charles University in Prague, 2006-2012)
Macromolecular Chemistry I+II, lab. practices (Tomas Bata University in Zlin, 2015)
Construction polymers, lab. practices (Tomas Bata University in Zlin, 2015)

Publications:

In March 2016, 17 papers (6 as corresponding author) 110 citations from 1/2010 to 3/2016 according to Web of Science (76 excluding self-citations), H index 6.

Total 40.75 impact points

1. **Bis(μ-Carboxylato)dienerhodium(I) Complexes ï Synthesis, Characterization and Catalytic Activity**
   Zedník J.*, Sedláļek J., Svoboda J., Vohlídal J., Bondarev D., CísaŚová I.
   Collect. Czech. Chem. Commun. **2008**, 73, 1205 ï 1221.
   IF ï 1.137 (not last but 2013) or **3.026** (2014 IF of successor to the Collection - Chempluschem)

2. **Effect of preparation procedure on the structure, morphology, and optical properties of nanocomposites of poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] with gold nanoparticles**
   Dammer, O.*; Vlļková, B.; Procházka, M.; Bondarev, D.; Vohlídal, J.; Pfleger, J.
   Materials Chemistry and Physics **2009**, 115, 352ï 360
   IF ï 2.259

3. **New Fluorene-Based Copolymers Containing Oxadiazole Pendant Groups: Synthesis, Characterization, and Polymer Stability**
   Bondarev, D.*; Zedník, J.; Vohlídal, J.; Podhájecká, K.; Sedláļek, J. *J. Pol. Sci: A - Polym. Chem.* **2009**, 47, 4532-4546
   IF ï 3.113

4. **Synthesis and Properties of Cationic Polyelectrolyte with Regioregular Polyalkylthiophene Backbone and Ionic-Liquid Like Side Groups**
   Bondarev, D.*; Zedník, J.; Ġoufová, I.; Sharf, A.; Procházka, M.; Pfleger, J.; Vohlídal, J. *J. Pol. Sci: A - Polym. Chem.* **2010**, 48, 3073-3081
   IF ï 3.113

5. **Molecular weight and configurational stability of poly[(fluorophenyl)acetylene]s prepared with metathesis and insertion catalysts**
   Bondarev, D.*; Zedník, J.; Plutnarova, I.; Vohlidal, J.; Sedláļek, J. *J. Pol. Sci: A - Polym. Chem.* **2010**, 48, 4296-4309
   IF ï 3.113

6. **Colloidal Systems of Silver Nanoparticles and High-Regioregular Cationic Polythiophene with Ionic-Liquid-Like Pendant Groups: Optical Properties and SERS**
   Kazim, S.; Pfleger, J.*; Procházka, M.; Bondarev, D.; Vohlídal, J.
   J. Colloid Int Sci, **2011**, 354, 611-619
   IF ï 3.368

7. **SERS active systems of water-soluble polythiophene and plasmonic nanoparticles: preparation and optical properties**
   Kazim, S.; Pfleger, J.*; Halaġová, K; Procházka, M.; Bondarev, D.; Vohlídal, J.
   European Physical Journal ï Applied Physics 2011**, 55, 23905**
   IF ï 0.774

8. **UV/Vis Study of the Alkali Salts of Poly(thiophen-3-ylacetic acid) in Water**
   Hostnik, G.; Vlachy, V.; Bondarev, D.; Vohlídal, J. Cerar, J.*
   Acta Chim. Slov. **2012**, 59, 571-581
   IF ï 0.686

9. **Potentiometric and Conductometric Study of Aqueous Solutions of Lithium and Sodium Salts of Poly(thiophen-3-ylacetic acid)**
   Hostnik, G.; Vlachy, V.; Bondarev, D.; Vohlídal, J. Cerar, J.*
   Acta Chim. Slov. **2012**, 59, 582-589
   IF ï 0.686

10. **Stability of MEH-PPV: Poly{[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylene]vinylene} in solutions exposed to air in the dark and at daylight at laboratory temperature**
Bondarev, D.*; Trhlíkova, O.; Sedláek, J.; Vohlídal, J.*
Polymer Degradation and Stability 110 (**2014**) 129-136
IF = 3.163

11. **Transport properties and ion binding in aqueous solutions of alkali metal salts of poly(thiophen-3-ylacetic acid)**
Hostnik, G.; Bondarev, D.; Vohlídal, J.; Lebaek, S.; agar, E.; Vlachy, V.; Cerar, J.*
J. Mol. Liq. **2014**, 198, 173-180
IF = 2.515

12. **Transition-Metal-Catalyzed Chain-Growth Polymerization of 1,4-Diethynylbenzene into Microporous Crosslinked Poly(phenylacetylene)s: the Effect of Reaction Conditions**
Slováková, E.; Zukal, A.; Brus, J.; Balcar, H.; Brabec, L.; Bondarev, D., Sedláek, J.*
Macromol. Chem. Phys. **2014**, 215, 1855 1869
IF = 2.616

13. **Salt-specific effects observed in calorimetric studies of alkali and tetraalkylammonium salt solutions of poly(thiophen-3-ylacetic acid)**
Gregor Hostnik, Vojislav Vlachy, Dmitrij Bondarev, Jiří Vohlídal, Janez Cerar*
Phys. Chem. Chem. Phys. **2015**, 17, 2475-2483
IF = 4.493

14. **Polythiophene-based Conjugated Polyelectrolyte: Optical Properties and Association Behavior in Solution**
P. Urbánek, A. di Martino, S. Gladyb, I. Kuítka, A. Minaík, E. Pavlova, D. Bondarev*
Synthetic Metals, **2015**, 202, 16-24
IF = 2.252

15) **Chain-growth copolymerization of functionalized ethynylarenes with 1,4-diethynylbenzene and 4,4´- diethynylbiphenyl into conjugated porous networks**
Sabina Stahlová, Eva Slováková, Petra Vaíkátová, Arnob Zukal, Martin Kubt, Jiří Brus, Dmitrij Bondarev, Robert Mouka, Jan Sedláek*
European Polymer Journal, **2015**, 67, 252-263
IF = 3.005

16) **Morphology and Kinetics of Aggregation of Ag Nanoparticles Induced with Regioregular Cationic Polythiophene**
Samrana Kazim, Alessandro Jager, Milob Steinhart, Jiří Pfleger*, Jiří Vohlídal, Dmitrij Bondarev, and Petr tepánek,
Langmuir, **2016**, 5, 2-11
IF = 4.457

17) **SEC-DAD - effective method for the characterization of ´ -conjugated polymers**
Olga Trhlíková, Sviatoslav Hladyb, Jan Sedláek, Dmitrij Bondarev*
Materials Research Forum, **2016**, 851, pp 167-172
No IF available

in Bratislava, July 6th 2016