

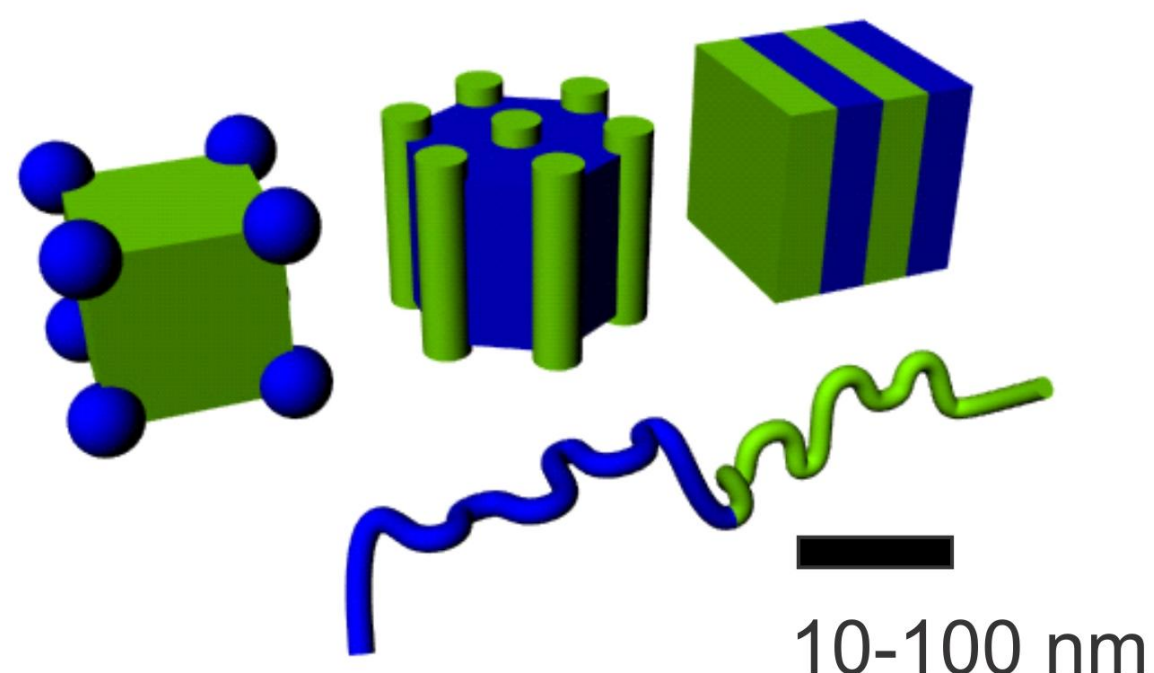
## PhD fellowships

in block-copolymer research project:

*Innovative Nanostructured Functional Materials by Combinatorial Methods of Directed Self-Assembly of Block Copolymers*

funded under the *First Team* program by the Foundation for Polish Science (FNP).

Principal Investigator: Dr. Pawel W. Majewski



### Job description:

PhD students will participate in a 2.5 years-long research in processing, characterization and application of nanostructured block copolymers (BCPs). The research involves both the fundamental studies of soft materials self-assembly in search for non-conventional nanostructural motifs and the practical application of BCPs and BCP-derived nanostructures in filtration membranes, transparent electrodes, light polarizers, anti-reflection layers, superhydrophobic coatings, chemical sensors and catalytic materials. We are seeking for highly-motivated candidates with well-balanced experimental and theoretical skills, interested in soft materials, polymers, liquid crystals, thin-films, surface science and nanomaterials synthesis. The project includes collaboration with the scientists from the National Synchrotron Light Source II in Brookhaven National Laboratory, USA, where X-ray scattering experiments will be performed.

In their research, the students will use the following methods and characterization tools: polymer coating, physical vapor deposition, BCP-templated synthesis of inorganic nanomaterials, SEM, TEM, X-ray scattering (GISAXS, GIWAXS, SAXS), polarized optical microscopy, device fabrication (optical lithography), electrochemical methods, automated image analysis.

### Conditions of Employment:

- PhD stipend 4000 PLN (non-taxable) for the duration of the project
- Travel funds for synchrotron visits and participation in research conferences

## Qualifications :

- MSc or equivalent degree in Chemistry, Physics, Chemical Engineering or Material Engineering (must be defended by 30<sup>th</sup> September 2017)
- Research experience in at least one of the following: polymer science, surface science, soft-matter physics, X-ray scattering and/or crystallography
- Good communication skills in English

## Requirements:

- Completed Application Form (please use the provided form available from: <http://chem.uw.edu.pl> or <http://majewskiresearch.com/FirstTeam>)
- A copy of transcript of grades from undergraduate courses
- A copy of MSc diploma
- At least one letter of recommendation (please use the provided form available at: <http://chem.uw.edu.pl> or <http://majewskiresearch.com/FirstTeam>)
- GRE (Chemistry or Physics) scores for international students or admission test results for PhD students from the Department of Chemistry UW
- mandatory enrollment into the PhD program at the Department of Chemistry of UW within one year from the start of the fellowship

## Application submission deadline:

**June 4<sup>th</sup> 2017**

Submission and questions only by email: [pmajewski@chem.uw.edu.pl](mailto:pmajewski@chem.uw.edu.pl)

The candidate(s) will be chosen by the selection committee in accordance with FNP rules. More instructions available in the Application Form.

**Contact: Dr. Pawel W. Majewski**

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