



ICHF 4/2018

Warsaw June 19th 2018

Surface Nanoengineering group

PhD student position

- **Job title:** PhD student – scholarship.
- **Job summary:** PhD student position available in the Institute of Physical Chemistry PAS within National Science Center SONATA BIS Project No. 2016/22/E/ST5/00531 entitled “**Ultralong metallic nanowire waveguides – a bridge between the nano- and macroworlds**” (leader dr hab. inż. Joanna Niedziółka-Jönsson).

- **Job Description:**

The main goal of this project is to prove that plasmon propagation in metallic nanowires can reach sub-millimetre distances and to use this for remote plasmonic sensing. The illumination of the metallic nanostructure with light causes excitation of collective oscillations of free-electrons known as plasmons. These plasmons can propagate along the axis of the one-dimensional nanowires. The metallic nanowire will act as a waveguide for the plasmons so that they can excite emitters specifically and locally placed on the other end of the nanowire.

The research studies in which the candidate is to participate: Synthesis of ultralong metallic nanowires and their surface modification; characterization of the obtained nanostructures with the help of scanning microscopies; investigation of plasmonic properties of the obtained metallic nanowires by fluorescence microscopy and their sensor application.

Responsibilities:

- Designing, planning and carrying out experimental work independently and under the supervision, maintaining regular research notes.
 - Scientific initiative and contribution through regular reporting and publishing, as well as presenting at group meetings, national and international conferences.
 - Providing help and supervision to junior members of the group.
 - Contribution to the efficient functioning of the lab including necessary administrative and organizational tasks.
- **Nr of positions available:** 1
 - **Main Research Field:** physical-chemistry

- **Sub Research Field:**

experimentalists with background in physical-chemistry, synthesis of nanostructures and experience in laboratory work

- **Research Profile:** First Stage Researcher (R1)

- **Career development benefits:**
Work in outstanding institution,
Planned research visit to Nicolaus Copernicus University in Torun, Poland
Participation in international conferences,
Pursuing PhD degree.
- **Benefits:** We offer 3000 PLN per month stipend financed from the NCN SONATA BIS 6 Project No2016/22/E/ST5/00531 and part time employment (1/4 post) financed from IPC PAS budget (around 500 PLN per month). Additionally there is a possibility of obtaining scholarship from IPC PAS according to internal rules http://ichf.edu.pl/msd/2017-09-29_stypendia_dot_stat_grant.pdf (more than 1500 PLN). The position is for a period of 36 months (funding for almost whole PhD duration). The successful candidates will be able to take advantage of all programs for PhD students in the IPC PAS, including possibility of preferential renting of room in dormitories, Young Scientist of IPC PAS competition and Mobility of Young Scientists of IPC PAS competition. Additionally all benefits of employees of IPC PAS will be granted to the successful candidate, e.g., private health care program.

Possibility of further employment/scholarship (after 36 months of NCN scholarship) to complete IPC-PAS International Doctoral Studies (48 months) according to internal IPC-PAS rules valid in due course and employment in the IPC-PAS before beginning of the PhD studies (November 1, 2018).

- **Application Details**
 - **Envisaged Job Starting Date:** no later than November 1st, 2018, and a necessary condition is that successful candidates need to have a status of PhD student at the Institute of Physical Chemistry PAS.
 - **Application Deadline:** September 10th, 2018, 16:00
 - **How to Apply:**
Send application directly to rekrutacja@ichf.edu.pl, **IMPORTANT** email title "ICHF 4/2018"
- **Required Education Level**
 - **Degree:** master or equivalent
 - **Degree Field:** biotechnology, biology, chemistry, physics or related fields
- **Required Languages:** English
 - **Language level:** good
- **Additional Requirements**
 1. Master of Science (or equivalent) degree preferably in biotechnology, biology, chemistry, physics or related, awarded not earlier than three years before the deadline of the present recruitment.
 2. The average grade obtained in the course of study is not less than 4.3.
 3. Ability to work independently as well as in a group.
 4. Basic knowledge of rules and protocols valid in labs.
 5. Knowledge on nanostructures synthesis will be appreciated.
 6. Proficiency in English speaking and writing.
- **Recruitment procedure**
 - The recruitment procedure has four main stages: 1) submission of the documents, 2) interview with Commission (first meeting of the Commission) for invited candidates, 3) best among them will be asked to take entry exam for the International Doctoral Studies (MSD) at the IPC PAS and 4) decision will be made by Commission during second meeting. Only candidates who got positive grade during IPC PAS entry exam will be taken into consideration. See details below:

1) Complete application should include the following items: application letter, professional curriculum vitae, university degree diploma and MSc certificate, a list of scientific achievements (publications, patents, conference presentations, etc.), at least two letters of recommendation written by academics or contacts to two individuals who can provide recommendation, and consent regarding the collection and processing of personal data (http://ichf.edu.pl/RODO_scholarship-student_consent.doc **IMPORTANT: applications without the consent will not be considered.**). Application deadline is on **10th of September 2018**.

2) Top candidates will be invited (**between 11th of September and 14th of September**) for an interview (or a conference-call). Good command of English is required. We reserve the right to contact and reply to only selected candidates.

3) The best candidates who meet the competition requirements will be invited to take an entry exam for the International Doctoral Studies (MSD) at the IPC PAS. These candidates will need to submit proper documents to IPC PAS http://ichf.edu.pl/msd/IDS_required_documents.pdf. Only persons who pass the exam for the Doctoral Studies at the IPC PAS with a positive grade, are going to be eligible candidates. The exam will be held on **October 1st, 2018**. A description of the course of study can be found at: <http://ichf.edu.pl/msd/>. The candidates, who are already enrolled in MSD program at the IPC PAS do not need to retake the entry exam.

4) After the positively passed exam of the PhD Studies at the Polish Academy of Sciences, the Commission will decide to award the scholarship and the results of the recruitment will be announced on **October 3rd, 2018**.

- The scholarship will be awarded in accordance with the NCN regulations: „*Regulamin przyznawania stypendiów naukowych w projektach badawczych finansowanych ze środków narodowego centrum nauki*”

- https://www.ncn.gov.pl/sites/default/files/pliki/uchwala_rady_50_2013.pdf

- The Commission will take into account the following criteria:

- a) competences of candidates for specific tasks in a research project,

- b) previous scientific achievements of candidates,

- c) awards and distinctions of the candidate resulting from the conducted research.

- The commission evaluates applications on a point scale.

- A scholarship will be awarded to the person who obtains the highest number of points.

- The results of the competition are made public.

- The candidate that does not agree with the results of the recruitment procedure has the right to appeal to the Director of the Institute within 7 days after results were announced.

- Scheduled starting date of work within the Project is **no later than November 1st, 2018**, and the necessary condition is that successful candidates need to have the status of PhD student at the Institute of Physical Chemistry PAS before starting work within the Project.

If the top candidate does not sign the contract, due to the resignation, we reserve the right to choose the next candidate from the ranking list.

- **Employment policy of the Institute of Physical Chemistry PAS:**
http://ichf.edu.pl/employment_policy.pdf