

FORM FOR EMPLOYERS

INSTITUTION	UNIVERSITY OF WARSAW, FACULTY OF PHYSICS
CITY	WARSAW, POLAND
POSITION	POST-DOC
DISCIPLINE	PHYSICS
NUMBER OF POSITIONS	1
POSTED	20.12.2017r
EXPIRES	31.01.2018r
WEBSITE	WWW.FUW.EDU.PL
KEY WORDS	Hybrid structures of single molecule magnets and two-dimensional layered materials, multiplet structure of molecules with magnetic ions, changes of the magnetic state of the one molecular magnet with external electric field, density functional theory, tight-binding method

DESCRIPTION (field, expectations, comments):

The aim of the recruitment is appointment of a postdoc who should perform scientific research (no teaching duties) within the OPUS-12 project entitled "Hybrid structures of single molecule magnets and two-dimensional layered materials" granted by The National Science Centre. The project leader is professor Jacek A. Majewski. The appointment will be at the level of assistant professor in the Department of Modelling of Complex Systems at the Faculty of Physics, University of Warsaw, for the period of 24 months starting at 1st of March 2018r. The objective of the project is investigation of new hybrid nanostructures that could constitute the basis of novel functional spintronic devices and determination of the important physical mechanisms leading to the required functionalities.

The employed post-doc will be responsible for realization of the main project's tasks consisting of: (i) implementation of the generalized Kohn-Sham scheme of the density functional theory allowing for *ab initio* calculations of the multiplet levels of single molecule magnets, (ii) performing calculations for selected single molecule magnets grafted to two-dimensional layered structures, such as graphene, h-BN, transition metal dichalcogenides, and MXenes, (iii) calculations of the coherent current flow in the hybrid structures. The candidate should realize scientific research in close cooperation with the project's team, in particular with PhDs and students.

The candidates have to conform to the conditions stated in art. 109 of Higher Education Law dated 27.07.2005. (uniform text: Journal of Laws of the Republic of Poland 2016, item 1842 with further amendments).

The requirements:

The candidate should fulfil the following conditions: (i) possess the PhD degree in theoretical physics, quantum chemistry, electrical or materials engineering obtained not longer than seven years before appointment, (ii) possess knowledge in the field of theoretical condensed matter physics, (iii) possess experience in computations in the framework of density functional theory, (iv) to be interested in physico-chemistry of layered atomically thin two-dimensional materials, (v) possess the knowledge of English allowing for communication with team members and writing scientific reports.

The candidates should provide the following documents:

1. Application for the position together with the statement of acceptance for the personal data processing during the recruitment procedure: "I hereby give consent for my personal data to be processed for the purposes of recruitment, in accordance with the Personal Data Protection Act dated 29.08.1997 (uniform text: Journal of Laws of the Republic of Poland 2016, item 922)";
2. Motivation letter;
3. Copy of the doctoral diploma;
4. CV and list of publications;
5. Two reference letters.

The candidate should deliver all documents up to 31st of January 2018, either directly to the secretary's office of the Institute of Theoretical Physics, Faculty of Physics, University of Warsaw (PL-02-093 Warszawa, ul. L. Pasteura 5, room no. 5.49) or in PDF format sent per email to Jacek.Majewski@fuw.edu.pl.

The entire recruitment procedure will be concluded by 9th of February 2018r. The candidate might be asked for an interview (also per Skype) with the commission appointed by the Dean of the Faculty of Physics. In this case, the candidates will be informed about the interview date per email.

Each candidate will be informed personally per email about the results of the recruitment procedure.

This announcement is the first step in the procedure of employing an academic teacher and its positive result will be a base for consecutive steps.