

## Scholarship Offer for PhD Student at Faculty of Chemistry, A. Mickiewicz University, in Project Opus 11

Adam Mickiewicz University in Poznań announces an open competition for the position of PhD student (*Doktorant - stypendysta*) in Faculty of Chemistry. The selected candidate will realize the research tasks in the project OPUS 11: "*Rational design of molecular nanomagnets: synthesis, characterization, theoretical description and computational modeling of their properties*" (financed by the National Science Centre under the terms of the Agreement for this project). Major task is to provide support for theoretical description and computational modeling leading to better understanding and prediction of spectroscopic and magnetic properties of molecular nanomagnets (MNM) using either semiempirical methods or density functional theory (DFT)/ab initio methods.

## Scholarship Offer for PhD Student at Faculty of Chemistry, A. Mickiewicz University, in Project Opus 11

**Institution:** Faculty of Chemistry, Adam Mickiewicz University in Poznań

**Position Name:** PhD student (*Doktorant - stypendysta*) in the project OPUS 11: "*Rational design of molecular nanomagnets: synthesis, characterization, theoretical description and computational modeling of their properties*".

**Duration:** up 18 months, initially for 6 months with possible extension after probation period.

**Salary:** negotiable but not more than 2300 PLN/month (gross).

**Principal Investigator (and Supervisor):** Prof. Czesław Rudowicz.

### Requirements:

1. Familiarity with of physical foundations of optical and EMR spectroscopy, and magnetism of transition (3d/4f) ions in crystals, especially the effective spin Hamiltonian theory.
2. Substantial knowledge of solid state physics, quantum mechanics, and group theory.
3. Other qualifications required:
  - good programming skills in computational and/or algebraic languages;
  - high level of analytical skills and inquiring mind;
  - publications in internationally refereed scientific journals would be an advantage;
  - proficiency in English is a must, whereas in Polish would be an advantage.

### Scope of work within project tasks:

Carrying out calculations using suitable computer programs. Comparative analysis and systematic categorization of experimental and theoretical data for selected molecular nanomagnets (MNM). Development of better theoretical framework for description and prediction of properties of MNM complexes. Individual literature searches. Active participation in group activities and preparation of publications.

### Additional information:

- Application containing: motivation letter, CV (including photo), publication list (if any), copy of diploma (if available, or information on current status of MSc thesis), contact details of 2-4 potential referees, should be sent as a single pdf-file or zip-file. Please include in your application one page with the following phrase: "*In accordance with the Personal Data Protection Act from 29 August 1997, I hereby agree to process and to store my personal data by the Adam Mickiewicz University in Poznań for recruitment purposes*".
- Selected candidates will be invited for the interview – the date will be communicated to the candidates individually.

**Send applications by email to:** <ar@amu.edu.pl> **with a copy to** <czerud@amu.edu.pl>

The e-mail heading should be: "PhD student #1B– OPUS grant".

**Application deadline:** 15.08.2018 or until the position is filled.

**For more information contact:** Prof. Czesław Rudowicz by email: <czerud@amu.edu.pl>.