



## PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

### Open PhD Position at Freie Universität Berlin, offered only to Chinese CSC scholarship candidates 2019

*Please Note: this PhD position is only offered to Chinese PhD candidates for the application in the framework of the FUB-CSC PhD Program.*

<b><u>Department/Institute:</u></b>	Department of Physics/Institute of Experimental Physics
<b><u>Subject Area:</u></b>	Solid State Physics
<b><u>Name of Supervisor:</u></b>	Prof. Wolfgang Kuch
<b><u>Number of Open PhD Positions:</u></b>	1
<b><u>Type of the PhD Study:</u></b>	Full-time
<b><u>Project Title:</u></b>	Materials for Molecular Spintronics

#### **PhD Project Description:**

Organic molecules have a great potential for the continuing miniaturization of all kind of electronic devices. Particular interest focuses on the development of molecular spintronics, the use of the electron's spin for storing and processing information rather than its charge, by using organic magnetic molecules.

The project is a continuation of our previous successful work in this field. The aim is to establish intermolecular interactions in an ensemble of adsorbed paramagnetic molecules, for example spin-crossover molecules, as a means to control in a defined way their magnetization by light. Samples are prepared under ultrahigh vacuum conditions and examined by x-ray spectroscopy in the university lab and at the Berlin synchrotron radiation source BESSY II in a new superconducting magnet set-up that allows measurements at high magnetic fields and lowest temperatures. The project is embedded in a rapidly progressing field of actual research that receives currently great attention due to its relevance for the further miniaturization of nanoscale devices.

#### **Language Requirements:**

IELTS: 6,5 / TOEFL: 95 ibt (PhD study in English)

#### **Academic Requirements:**

Master in physics with a master thesis in experimental physics.

#### **Information of the Professor or Research Group Leader:**

<http://www.physik.fu-berlin.de/en/einrichtungen/ag/ag-kuch/index.html>  
[http://users.physik.fu-berlin.de/~kuch/pub\\_index.html](http://users.physik.fu-berlin.de/~kuch/pub_index.html)

**Please Note:** In a first step, the complete application should be submitted to the Beijing Office for evaluation by January 4<sup>th</sup>, 2019. Please do not contact the professor before. He/she will get in contact with you after having received the complete application via the Beijing Office in January.