

## FORM FOR EMPLOYERS

INSTITUTION: AGH-University of Science and Technology

CITY: Kraków

POSITION : Associate professor

DISCIPLINE: Chemistry

POSTED .....

EXPIRES .... 30.12.2016

WEBSITE: [www.uci.agh.edu.pl/konkurs](http://www.uci.agh.edu.pl/konkurs)

KEY WORDS: structure of amorphous materials, structure of solids, electronic structure, electron density topology, properties of chemical bonds, thermoelectric materials, perovskite type ionic conductors, microporous aluminosilicate materials, molecular modelling, *ab initio* methods, vibrational spectra (IR and Raman)

DESCRIPTION (field, expectations, comments):

The candidate should possess a PhD degree in chemistry, specialty theoretical chemistry and physics and chemistry of solids and meet the following requirements:

- scientific achievements confirmed by publications in the field of theoretical studies (employing advanced quantum chemical and physical methods) of various properties of microporous aluminosilicate materials, doped semiconducting thermoelectric materials and ionic conductors with perovskite-type structure (*inter alia* bonding properties, vibrational spectra, electronic structure and thermoelectric properties)
- ability to design and conduct scientific research devoted to theoretical modeling of the properties of amorphous materials and crystalline solids, especially the influence of chemical composition and structure changes on thermodynamic stability and various physicochemical properties of these materials

- teaching experience in the field of advanced theoretical computational methods and structure and properties of amorphous and crystalline materials.
- ability to carry out research programs in the field of theoretical modeling of materials' properties by means of quantum mechanical methods and structural characterization of materials in relation to their properties
- knowledge of English language
- reputation for high personal culture and ethical standards