

The Institute of Inorganic Chemistry of the University of Bonn (Germany)
(research group of Prof. Dr. A. C. Filippou) seeks a candidate for

a Ph.D. position

The salary follows the German law for public institutions and is according to the standard rate E13/2 TV-L.

The position is of one year initial appointment with the possibility of extension of up to four years. The group of Prof. Filippou is engaged in experimental and theoretical molecular transition metal, main group element and organometallic chemistry. The topics of the offered Ph.D. thesis project are

- Triple bonds of transition metals with the elements Si–Pb
- Organosilicon chemistry in low oxidation states
- Metal-centered C-C coupling reactions of diaminoacetylenes

The research comprises quantum chemical calculations (gas phase and solvent approximations (COSMO)), like geometry optimizations, calculations of thermodynamic parameters, analyses of the wave function (molecular orbitals, NBO, AIM, ELF, ETS-NOCV), evaluation of spectroscopic properties (UV/vis, NMR, EPR, IR/Raman) by using ab initio and DFT methods of closed- and open-shell molecules using common QC programs (Orca, Turbomole, ADF, Gaussian) under guidance of an experienced supervisor.

The co-workers of our mainly experimentally oriented research group are working at the above mentioned fields and provide numerous experimental results, which need to be explained and understood by means of theory. An active exchange of ideas between the candidate and the experimentalists is highly desired. Assistance in maintaining the work group computer infrastructure is an additional part of the work.

We offer very attractive research facilities in both experimental and computational chemistry. Besides an own computer cluster we have access to larger computational facilities (part of the SFB 813).

Required qualifications are: diploma or master degree above average with strong interest/good knowledge in computational chemistry and inorganic/organometallic molecular chemistry, as well as fluent English (or German), good interpersonal communication skills, and interest to teach and work with students.

Please submit your application to:

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