**Announcement**

Subject: 1 year PostDoc position in DIAMANT—Diamond based atomic nanotechnologies EU FP7 collaborative project

Category: job

From: Adam Gali

Date: 31-May-2011

**Job Summary**

Applications are invited for 1 year PostDoc position link to a 3-year project on the topic “Diamond based atomic nanotechnologies” as a part of a European Union FP7 collaborative project. The project will be conducted with the Adam Gali Nano Research Group in the Research Institute for the Solid State Physics and Optics of the Hungarian Academy of Sciences in Budapest. Adam Gali Nano Research Group works tightly with experimental research groups in Europe and USA within the frame of this EU project that lead cutting-edge research in the area of solid state quantum information processing and atomic scale magnetometry realized by deep point defects in solids. The aim of the research is to develop methods and study such paramagnetic color centers in diamond and related wide band gap materials by means of first principles calculations.

**Job Description**

We are looking for a highly qualified candidate that has strong solid state physics background and experience in point defect studies by means of quantum mechanical calculations. Deep knowledge on modeling of point defects in solids by plane wave supercell codes (particularly, VASP code and/or pwscf code) as well as scientific programming is essential. The successful candidate will work on identification and characterization of color centers in diamond and related wide band gap materials, where the electronic structure, the fine magnetic properties (like hyperfine tensors, zero field splitting, etc.) and the ionization and excitation energies of the appropriate color centers will be determined by density functional theory methods and beyond. Experience in the application of time-dependent DFT and/or GW+BSE methods on point defects is an advantage. The candidate should prove the ability to work independently, write scientific papers and cooperate with experimental physicists. Consideration of candidates will begin immediately until the position is filled.

**Applications** and further information inquires should be addressed to Prof. Adam Gali (contact details below).

Applications should include a letter of motivation, a curriculum vitae, a list of publications, and a full contact of two referees (or letters of recommendation).

Prof. Adam Gali

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