

Alexandre Sorokin

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Personal

Date of birth: 20th November 1990

Languages: Russian (native tongue)

English (fluently)

Latvian (fluently)

French (good)

German (beginner)

Education

2011– MSc studies University of Latvia, Latvia

2008–2011 BSc Phys (with distinction) University of Latvia, Latvia

Thesis title: *Investigation of electronic charge redistribution in LaAlO₃/SrTiO₃ (001) nano-heterostructures, using density functional theory*

Employment

2010– Institute for Solid State Physics, University of Latvia, Latvia

Engineer

Main activities:

First-principle calculations of electronic properties of doped ZnO

First-principle calculations of LaAlO₃/SrTiO₃ nano-heterostructures

2008–2010 Facultative School for Gifted Children, Latvia

Teaching Assistant

Main activities:

Planning and carrying out practical and lab works for students

Teaching parts of the course

2009 Riga Secondary School No 34

Feb–Mar *Substitute Chemistry Teacher*

Main activities:

Full-time teaching to 8th–12th grade students

Participations in Conferences

- (1) A Sorokin, D Bocharov, S Piskunov and V Kashcheyevs ‘Quantum chemistry simulations of LaAlO₃/SrTiO₃ interface electronic structure’, 26th ISSP Scientific Conference, Riga, Latvia (Feb 2011)

- (2) AV Sorokin, YuF Zhukovskii, J Purans and EA Kotomin ‘Influence of Al and Ga dopants on electronic properties of ZnO: Ab initio simulations’, Functional Materials & Nanotechnologies, Riga, Latvia (Apr 2011)

Computer Skills

C/C++ programming

Python and bash scripting

HTML and LaTeX mark-up

Mathematica and Maple symbolic computational packages

CRYSTAL ab initio LCAO code