CURRICULUM VITAE

PERSONAL DETAILS

Name: Rongzhen Chen
Gender: Male
Date of Birth: August 04, 1983
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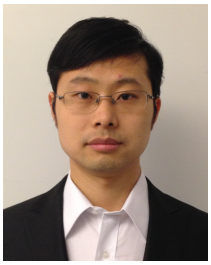

EDUCATION AND RESEARCH

University of Oslo, Norway Apr. 2016 – May 2017
Researcher at Centre for Materials Science and Nanotechnology.

KTH Royal Institute of Technology, Sweden Sept. 2009 – May 2017
PhD Candidate at Department of Materials Science and Engineering.

Projects: First-Principles Study of Copper-Based Chalcogenide Photovoltaic Materials.

Licentiate of Engineering awarded on March 6th, 2015.
PhD dissertation defense is expected on May, 2017.

Northeastern University, P. R. China Sept. 2008 – July 2009
PhD Candidate at College of Information Science and Engineering (Incomplete).

Northeastern University, P. R. China Sept. 2006 – July 2008
Master of Science at College of Information Science and Engineering.

Thesis: ANSYS-based Simulations in the Process of Continuous Casting.

Shenyang University of Technology, P. R. China Sept. 2002 – July 2006
Bachelor of Science in College of Science.

Thesis: Qt-based application: Text Editor.

REFERENCES

Prof. Clas Persson
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PUBLICATIONS

Journal Papers:

I **Parameterization of $CuIn_{1-x}Ga_xSe_2$ (x = 0, 0.5, and 1) energy bands**
R. Chen and C. Persson, *Thin Solid Films* **519**, 7503 (2011).

II **Band-edge density-of-states and carrier concentrations in intrinsic and p-type $CuIn_{1-x}Ga_xSe_2$**
R. Chen and C. Persson, *Journal of Applied Physics* **112**, 103708 (2012).

III **Dielectric function spectra at 40 K and critical-point energies for $CuIn_{0.7}Ga_{0.3}Se_2$**
S.G. Choi, **R. Chen**, C. Persson, T.J. Kim, S.Y. Hwang, Y.D. Kim, and L.M. Mansfield, *Applied Physics Letters* **101**, 261903 (2012).

IV **Dielectric function and double absorption onset in monoclinic Cu_2SnS_3: origin of experimental features explained by first-principles calculations**
A. Crovetto, **R. Chen**, R.B. Ettlinger, A.C. Cazzaniga, J. Schou, C. Persson, O. Hansen, *Solar Energy Materials and Solar Cells* **154**, 121 (2016).

V **Exploring the electronic and optical properties of $Cu_2Sn_{1-x}Ge_xS_3$ and $Cu_2Sn_{1-x}Si_xS_3$ (x = 0, 0.5, and 1)**
R. Chen and C. Persson, accepted by *Physica Status Solidi (c)* (2016).

VI **Electronic and optical properties of Cu_2XSnS_4 (X = Be, Mg, Ca, Mn, Fe, and Ni) and the impact of native defect pairs**
R. Chen and C. Persson, submitted to *Journal of Applied Physics* (2017).

VII **High absorption coefficients of the $CuSb(Se,Te)_2$ and $CuBi(S,Se)_2$ alloys enable high efficient 100 nm thin-film photovoltaics**
R. Chen and C. Persson, submitted to *EPJ Photovoltaics* (2017).

VIII **Investigation of the structural, optical and electronic properties of $Cu_2Zn(Sn,Si/Ge)(S/Se)_4$ alloys for solar cell applications**
S. Zamulko, **R. Chen** and C. Persson, accepted by *Physica Status Solidi (b)* (2017).

Book Chapter:

I **Electronic structure and optical properties from first-principles modeling**
C. Persson, **R. Chen**, H. Zhao, M. Kumar, and D. Huang, Chapter in "Copper zinc tin sulphide-based thin film solar cells", edited by K. Ito, p. 75−106 (John Wiley & Sons, 2015).

International Conference Contributions:

I **Band structure and optical properties of $CuInSe_2$**
R. Chen and C. Persson, *Advanced Materials Research Journal* **894**, 254 (2014).
4th International Conference on Advanced Materials Research (ICAMR−4), Macao, China, 23−24 Jan. 2014.

II **Electronic modeling and optical properties of $CuIn_{0.5}Ga_{0.5}Se_2$ thin film solar cell**
R. Chen and C. Persson, *Journal of Applied Mathematics and Physics* **2**, 41 (2014).
Conference on New Advances in Condensed Matter Physics (NACMP 2014), Shenzhen, 14−16 Jan 2014.

CONFERENCES AND WORKSHOPS

Poster Presentation (Dec. 2016)
2016 MRS Fall Meeting & Exhibit - Materials Research Society, Boston, USA.

Poster Presentation (Sept. 2016)
The 6th International Workshop on Quantum Energy, Xiangtan, China.

Poster Presentation (Sept. 2016)
The 20th International Conference on Ternary and Multinary Compounds, Halle, Germany.

Oral Presentation (May 2016)
The 2016 E-MRS Spring Meeting, Lille, France.

Oral Presentation (May 2015)
The 2015 E-MRS Spring Meeting, Lille, France.

Oral Presentation (Jan. 2014)
The 4th International Conference on Advanced Materials Research, Macao, China.

Oral Presentation (Jan. 2014)
Conference on New Advances in Condensed Matter Physics, Shenzhen, China.

ACTIVITIES

Research Visiting (Oct. 2016)
Visiting in the Group of Prof. Nemcsics Ákos at Óbuda University, Budapest, Hungary.

Research Visiting (Dec. 2013)
Developers Week in the Group of Prof. Claudia Ambrosch-Draxl at the Humboldt-Universität zu Berlin, Berlin, Germany.

Research Visiting (Oct.-Dec. 2011)
Visiting in the Group of Prof. Claudia Ambrosch-Draxl at the University of Leoben, Leoben, Autria.

High-Performance Computing-Summer School (2011)
Introduction to High-Performance Computing, Sweden PDC- Center for High-Performance Computing-Summer School, Stockholm, Sweden

High-Performance Computing-Summer School (2011)
Introduction to High Performance Computing, Finland CSC IT Center for Science Ltd - Summer School, Espoo, Finland.

AWARDS

Best Poster Award (Sept. 2016)
The 6th International Workshop on Quantum Energy, Xiangtan, China.