



BERNA AKGENÇ

CURRICULUM VITAE

Research Assistant Doctor of Physics Department

Kırklareli University, 39020, Kavaklı Campus, Kırklareli, Turkey

berna_akgenc@hotmail.com , berna.akgenc@klu.edu.tr

<http://personel.klu.edu.tr/berna.akgenc>

+90 530 090 52 08

Education and Academic Degrees

January 2017

Ph.D. in Physics

Yildiz Technical University, Istanbul, Turkey

Thesis: A study of the relation of piezoelectric properties and nano structures through methods in computational physics

June 2010

M.Sc. in Physics

Sakarya University, Sakarya, Turkey

Thesis: DFT based calculations of the electronic structure and transmission coefficient of nanoscaled molecular contacts

July 2008

B.Sc. in Physics

Kocaeli University, Kocaeli, Turkey

Educational Experiences

November 2013 – February 2016

Visiting Scholar

Texas A&M University, College Station, Texas, USA.

(Scientific Technological Research Council of Turkey, TUBITAK and Council of Higher Education YOK)

September 2009 – September 2010

Erasmus Student (for M.Sc. thesis)

Augsburg University, Augsburg, Germany.

List of Publications

T. Wunderlich, **B. Akgenc**, U.Eckern, C.Schuster and U. Schwingenschlögl, "Modified Li chains as atomic switches", Scientific. Reports. 3, 2605 (2013).

SD. Gunay, **B. Akgenc** and C. Tasseven, "Modelinig Superionic Behaviour of Plutonium Dioxide", High Temp. Mater. and Process, 35-10,999-1004, November (2016).

List of Proceedings

B Akgenc, C Tasseven, T. Cagin, "Stability and Mechanical Properties of $\{A_xA_{(1-x)}\}\{ByB_{(1-y)}\}O_3$ Ceramics", TMS Middle East-Mediterranean Materials Congress on Energy and Infrastructure Systems, 423-432, MEMA (2015).

B. Akgenc, U.Akdere, S.D. Gunay and C. Tasseven", NPT Simulation and Hypernetted-Chain Calculations of SrCl₂", 3RD INTERNATIONAL ADVANCES IN APPLIED PHYSICS AND MATERIALS SCIENCE CONGRESS AIP Conference Proceedings 1569 15-18 (2013).

S.D Gunay, **B. Akgenc**, U. Akdere and C. Tasseven, "Thermophysical Properties of alpha-Pu₂O₃: A New Potential Model", 3RD INTERNATIONAL ADVANCES IN APPLIED PHYSICS AND MATERIALS SCIENCE CONGRESS AIP Conference Proceedings 1569, 208-211 (2013).

Conference Presentations

B. Akgenc, C.Tasseven and T Cagin, "Stability, mechanical, dielectric and piezoelectric properties of $A_xA'_{(1-x)}ByB'_{(1-y)}O_3$ " , TMS Middle East, Mediterranean Materials Congress on Energy and Infrastructure System (MEMA-2015) January 11-14, Doha, QATAR

B. Akgenc, C.Tasseven and T Cagin, " First principles investigations of structural, elastic, dielectric and piezoelectric properties of $\{Ba,Sr,Pb\}TiO_3$, $\{Ba,Sr,Pb\}ZrO_3$ and $\{Ba,Sr,Pb\}\{Ti,Zr\}O_3$ ceramics" APS Bulletin of American Physical Society, APS March Meeting 2015 Volume 60, Number 2, March 2-6, 2015, San Antonio, Texas, USA.

B. Akgenc, C.Tasseven and T Cagin, " Electro-Thermo-Mechanical and defect kinetics in $A_xA_{(1-x)}B_yB_{(1-y)}O_3$ " Canadian-American-Mexican (CAM) Graduate Student Physics Conference, 9-2 September 2015, Oaxaca, Mexico.

B. Akgenc, C.Tasseven and T Cagin, "Lattice, elastic and piezoelectric properties in tetragonal BaTiO₃/PbTiO₃ first principle calcuation", 2nd Texas A&M Energy Institute Research Workshop, 20 October 2015, College Station, Texas, USA.

B. Akgenc, C. Tasseven and T. Cagin , "DFT-based ab-initio studies of lattice, elastic and piezoelectric properties of Barium Titanate Polymorphs" International Institute for Multifunctional Materilas for

Energy Conversion (IIMEC) Annual Meeting, Texas A&M University, 13–14 June 2014, College Station, Texas, USA.

B. Akgenç, S.D. Günay and Ç.Taşseven, "Classical Molecular Dynamics Simulation of PuO₂" Jubilee 20. Conference on Materials and Technology, 17–19 October 2012, Portoroz, SLOVENIA.

Ç.Taşseven, **B. Akgenç**, S.D. Günay and Ü. Akdere "Liquid state theory of plutonium dioxide: hypernetted chain approximation", 29th International Physics Congress, 5–8 September 2012, Bodrum–Muğla, TURKEY

S.D. Günay, **B. Akgenç**, U. Akdere and C. Tasseven, "Thermophysical Properties of alpha-Pu₂O₃: A New Potential Model", 3rd International Advances in Applied Physics and Materials Science Congress, APMAS, 24–28 April 2012, Antalya–TURKEY

B. Akgenç, C.Tasseven and T Cagin, "Piezoelectricity as smart materials", 2nd International Conference on Organic Electronic Material Technologies (OEMT), 17–19 May 2016, Canakkale, TURKEY.

B. Akgenç, S.D. Günay and Ç.Taşseven, "Temperature dependence of ionic diffusion of Thorium Dioxide", 29th International Physics Congress, 5–8 September 2012, Bodrum–Muğla, TURKEY

S.D. Günay, **B. Akgenç**, Ü. Akdere and Ç.Taşseven, "Studying superionic phase transition of plutonium dioxide from molecular dynamics simulation " 29th International Physics Congress, 5–8 September 2012, Bodrum–Muğla, TURKEY

B. Akgenç, U. Akdere, S.D. Günay and C. Tasseven, "NPT Simulation and Hypernetted–Chain Calculation of SrCl₂", 3rd International Advances in Applied Physics and Materials Science Congress, APMAS, 24–28 April 2012, Antalya–TURKEY

T. Wunderlich, **B. Akgenç**, C. Schuster, U. Eckern, "Transmission through metallic chains: Role of distortions and contact geometry" , 21st Edgar–Lüscher–Seminar, , 6–11 February 2010, Klosters, SWITZERLAND

B. Akgenç, K. Esmer, E. Tarcan, D. Avcı and Y. Atalay, "Theoretical studies of molecular structure and vibrational spectra of 4-nitro-2-[2-(piperidin-1-yl)ethyl] iminomethyl}phenol", 26th International Physics Congress , 24–27 September, 2009, Bodrum–Muğla, TÜRKİYE

References

Prof. Dr. Tahir Cagin

Texas A&M University

Material Science and Engineering Department

tcagin@tamu.edu

Prof. Dr. Çetin Taşseven

Yıldız Technical Univeristy

Physics Department

tasseven@ytu.edu.tr

Prof. Dr. Ulrich Eckern

Augsburg University

Physics Department

ulrich.eckern@physik.uni-augsburg.de