

## Workshop on Crystal Structure Prediction: Exploring the Mendeleev Table as a Palette to Design New Materials

14 - 18 January 2019

### POSTER SESSION - PRELIMINARY LIST OF POSTER PRESENTATIONS

Presenting author	Poster title
Seyed <b>AZIMIGEHAZ</b>	High-Throughput investigation of close packed Transition Metal surfaces for electrocatalytic reduction of Oxygen
Mohammad Reza <b>BASAADATKAVKADEHI</b>	Study of Temperature Effects on Mechanical Properties of Pure Zr and Zr-1%Nb Alloy Using Atomic simulation
El Tayeb <b>BENTRIA</b>	Molecular dynamics study of the early stages of metal dusting corrosion on Iron surfaces
Christian <b>BURNHAM</b>	A Multipole-Based Crystal Structure Prediction Code
Beatriz <b>COGOLLO</b>	Phase diagram of molecular and non-molecular phases of low-Z elements and compounds at extreme pressure and temperature conditions
Grisell <b>DIAZ LEINES</b>	Maximum Likelihood Analysis of Reaction Coordinates during Solidification in Ni
Nicholas <b>FRANCIA</b>	Towards a computational approach at finite-temperature polymorph screening
Federico <b>GALLINO</b>	Crystal Structure Evolution of NiTiCu shape memory alloy
Juan M. <b>GUERRA</b>	Ab-initio structural and electronic parameters of thermoelectric $Mg_2X_{1-x}Y_x$ (X,Y=Si,Ge,Sn) alloys
Sebastian <b>HUTSCH</b>	The impact of side chain substituents on the morphology of organic crystals
Dilson <b>JUAN</b>	Doping Effects on the Migration of Oxygen Vacancies in Lanthanum Strontium Manganite Compound
Qin <b>KEN</b>	Difficulty to capture non-additive enhancement of stacking energy by conventional ab-initio methods

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Rabii <b>LARHLIMI</b>	Pressure-induced polimerysazion of CO <sub>2</sub> in Li/Na/Mg-Carbon Dioxide phases
Leszek <b>MALEC</b>	Ab initio study of polymorphism in urea-barbituric acid co-crystals
Yedilfana S. <b>MEKONNEN</b>	Thermodynamic and Kinetic Limitations for Peroxide and Superoxide Formation in Na-O <sub>2</sub> Batteries
Francesca <b>MENESCARDI</b>	Towards realistic DFT predictions of materials at high pressure
Sharad <b>PILLAI</b>	Strain Effect on Electronic and Lattice Dynamical Behaviour of Two Dimensional Bi BiAs and BiSb
Nawaz <b>QAISRANI</b>	On the anomalous photo-physics of single amino acid protein crystals
Seyed Mojtaba <b>REZAEI SANI</b>	Theoretical prediction of arsenene for the anode of lithium/sodium-ion batteries: A first-principles study
Samare <b>ROSTAMI</b>	Exploring new phases of alkali-halides via a neural-network potential through charge equilibration technique
Pralok <b>SAMANTA</b>	Prediction and Ranking of Different Polymorphs of Pharmaceutical Molecules using Basin Hopping Model and Electronic Structure Theory
Raja <b>SEN</b>	Understanding the Lithiation of Sn Anode for High-Performance Li-ion Batteries with Exploration of Novel Li-Sn Compounds at Ambient and High Pressure
Arpita <b>SEN</b>	TaSi <sub>16</sub> clusters on HOPG: structures and electronic properties
Samira <b>SHEYKHI</b>	Electronic Structure of UO <sub>2</sub> as a Mott Insulator
Mozdeh <b>SHIRANIRAD</b>	Accurate and Efficient Calculation of Configurational Contribution to Free Energy of Alloys
Ondrej <b>TOTH</b>	Crystal structures of SiOS from evolutionary search up to 100 GPa
Florian <b>TRYBEL</b>	Proton dynamics in high-pressure ice-VII from density functional theory
Keishu <b>UCHIMURA</b>	Searching for polymer crystals with high thermal conductivities: An ab-initio study
Simon <b>WENGERT</b>	Screening Molecular Crystal Structures with Approximate Electronic Structure Methods