Research Experiences and Exploration in Materials Science (REEMS)—A University, Professional Society and Business Partnership Model Promoting Materials Science Education for Houston Community College Students

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Supplemental information

2017 REEMS REU Research Project Descriptions

*Temperature-induced Phase Transformation in NiTi – A Molecular Dynamics Study*

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*Machine-Learning-Driven Superhard Material Search: ReWC0.8 and Mo2-xWxBC*

Rizvi, Z.;1,2 Oliynyk, A.;1 Tehrani, A. M.;1 Brgoch, J.11Department of Chemistry, University of Houston, Houston, Texas

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*Effects of Peptide functionalization on polyethylene glycol hydrogel and bio interactions with oligodendrocyte progenitor cells*

Adel, Y.;1,2 Nadeem, T.;1,2 Lu, Xi.;1 Smith Callahan, L1

1Vivian L Smith Department of Neurosurgery, Center for Stem Cell and Regenerative Medicine, McGovern Medical School, University of Texas Health Science Center at Houston, Houston, Texas

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*Solidification Front Velocity and Temperature Gradient in Metal Crystals Grown from the Melt*

Andrew Catalanotto1, Daniel Suzuki2, Logan Ware2, Zachary Cordero2

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2 Department of Material Science and Nano Engineering at Rice University, Houston TX

*Fabrication of Bulk Nanocrystalline Alloys Using Ultrasonic Powder Compaction*

Nathaniel Ocanas1, Raquel Torres3, Austin Ward2, Zachary Cordero2

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*Investigating Portability of Molecular Dynamics Applications* (1)

Frank Kornet (2), Millad Ghane (3), Pengzhi Zhang (3) and Margaret S. Cheung (

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*Synthesis of Magnesian –Iron Silicate Phases by the Solid State Method*

Arceneaux, B1,2, Martinez, M 1,2, Vu, B.1,2, Meen J.2, Muller, K2

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2Texas Center for Superconductivity, University of Houston, Houston TX, 77024

*Partition of the Phases in a Ternary System Phosphor and the Effect of the Crystal Structures Created on Luminescence*

Martinez, M 1,2, Arceneaux, B1,2,Vu, B.1,2, Meen J.2, Muller, K2

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*Experimenting With Cobalt Doped Phosphors and Phosphorescence*

Brandon Vu1,2 , Monica Martinez1,2, Brenda Arceneaux1, and Dr. James Meen2

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*Effect of Side Chain Length on the Physical Properties of Linear Polymers with a Transient Network*

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*Enhancing Flexibility of Polymer Conductor through Surfactant and Solvent Additives*

Joshua Jackson1, Jorge Wu Mok2, and Rafael Verduzco2

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*Optimization of thiol-ene coupling for substrates for flexible photovoltaic devices*

Rodrigo Munoz-Zarruk1, Joshua Jackson1, Jorge Wu Mok2, and Rafael Verduzco2,\*

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