

## **Dr. AMITAVA CHOUDHURY**

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### **Professional Preparation**

2004-2008: Postdoctoral fellow at Colorado State University.

2003-2004: Postdoctoral fellow at Indian Institute of Science, Bangalore, India.

1998-2003: Ph.D., Indian Institute of Science, Bangalore, India.

1996-1998: Research Associate, University of North Bengal and in the University of Hyderabad.

1994-1996: M.Sc. (Chemistry with inorganic major), University of North Bengal, West Bengal, India.

1990-1993: B.Sc. (Chemistry Honors with physics and mathematics as minor) University of North Bengal, West Bengal, India.

### **Appointments**

Sept'2016 – Current: Associate Professor of Chemistry at Missouri S&T.

Sept'2011 – Aug'2016: Assistant Professor of Chemistry at Missouri S&T.

Aug'08 - Aug'2011: Assistant Research Professor of Chemistry at Missouri S&T.

### **Awards and Honours**

- K. P. Abraham award of Indian Institute of Science for the best doctoral thesis in Materials Chemistry in 2003.
- Tappmeyer award of Chemistry, Missouri S&T, for outstanding teaching performance in 2014 and 2016.

### **Affiliation with professional societies**

- Member, American Chemical Society (ACS)
- Member, Materials Research Society (MRS)
- Electrochemical Society (ECS)

### **Graduate Advisor and Postdoctoral Sponsor**

Prof. C. N. R. Rao – graduate advisor, JNCASR, Bangalore, India.

Prof. Peter K. Dorhout – postdoctoral sponsor, Colorado State University (currently, Vice President of Research, Kansas State University.)

### **Graduate (PhD) Students**

- Sutapa Bhattacharya (Fall 2020 -
- Santhoshkumar Sundaramoorthy (Fall 2019 -
- Srikanth Balijapelly (Spring 2018 – SP 2022, now at A123)
- Prashanth Sandineni (Spring 2015 – Fall 2019, now at Intel Corp)
- Hooman Yaghoobnejad (Spring 2012 –Fall 2016, Graduated, Currently post-doc at UT Austin)

### **Post-doctoral Advisees**

- Dr. Ramesh Deokate, Visiting post-doc, BASE fellow, Govt. of India, (Feb' 2019 -July 2019)
- Dr. Subal Manna, Visiting Post-doctoral Fellow, Raman Fellow of Govt. of India (Oct'2016 – Oct'2017)
- Dr. Amit Adhikary (April 2015 –Oct'2017, Currently National post-doctoral fellow, India)
- Dr. Anand Pariyar (Dec. 2014 – March 2016, currently Assistant Professor, Sikkim University, India)

## M.S thesis co-advised

- Siddharth Gopalakrishnan (Spring 2013 - summer 2015)

## Current Research Interests

General theme of research in this group includes solid-state chemistry, synthesis of new materials and study of their properties with special focus on energy related materials. Current research thrusts are on:

- Search for potential cathode materials for lithium- and Sodium-ion batteries based on polyanion compounds.
- Synthesis of complex chalcogenides with potential application in thermoelectrics, magnetic semiconductor and solid electrolyte.
- Synthesis of porous Metal Organic Framework (MOF) for possible applications in hydrogen storage, catalysis, drug delivery and other applications.

## Funding Sources

**Choudhury lab** has been funded through National Science Foundation (NSF-DMR), ACS-PRF, UM-Research Board and various centers of Missouri S&T.

## Publications (Since Missouri S&T affiliation)

1. A. J. Craig, S. H. Shin, J. B. Cho, S. Balijapelly, J. C. Kelly, S. S. Stoyko, **Amitava Choudhury**, J. I. Jang, J. A. Aitken, Crystal structure, electronic structure, and optical properties of the novel  $\text{Li}_4\text{CdGe}_2\text{S}_7$ , a wide-bandgap quaternary sulfide with a polar structure derived from lonsdaleite, *Acta Cryst. C*, 2022, **78**, 470-480.
2. S. Balijapelly, A. J. Craig, J. Bin Cho, J. I. Jang, K. Ghosh, J. A. Aitken, A. V. Chernatynskiy, **Amitava Choudhury**, Building-block approach to the discovery of  $\text{Na}_8\text{Mn}_2(\text{Ge}_2\text{Se}_6)_2$ : A polar chalcogenide exhibiting promising harmonic generation signals with a high laser-induced damage threshold, *J. Alloys Compd.*, 2022, **900**, art. no. 163392.
3. S. Balijapelly, K. Ghosh, A. V. Chernatynskiy, **Amitava Choudhury**, Discovery of an olivine-type lithium manganese thiophosphate,  $\text{LiMnPS}_4$ ,: Via a building block approach, *Chem. Commun.*, 2021, **57 (97)**, 13182-13185.
4. Y. Gao, H. Yu, P. Sandineni, X. He, **Amitava Choudhury**, J. Park, X. Liang, Fe Doping in  $\text{LiMn}_{1.5}\text{Ni}_{0.5}\text{O}_4$  by Atomic Layer Deposition Followed by Annealing: Depths and Occupation Sites, *J. Phys. Chem. C*, 2021, **125 (14)**, 7560-7567.
5. S. Balijapelly, A. Hauble, M. Pollard, M. Poupon, V. Petříček, J. L. Watts, Y. S. Hor, S. M. Kauzlarich, **Amitava Choudhury**, “Ultralow thermal conductivity through the interplay of composition and disorder between thick and thin layers of makovickyite structure” *J. Mater. Chem. C*, 2021, **9 (34)**, 11207 – 11215.
6. S. Balijapelly, Q. Zhang, P. Sandineni, A. Adhikary, S. Mohapatra, S. Sundaramoorthy, N. Gerasimchuck, A. V. Chernatynskiy, **Amitava Choudhury**, “High Sodium-Ion Conductivity in Interlocked Quaternary Chalcogenides Built with Supertetrahedral Building Units” *ACS Appl. Energy Mater.*, 2021, **4 (8)**, 7942 – 7951.
7. S. Balijapelly, A. Adhikary, S. Mohapatra, A. Chernatynskiy, **Amitava Choudhury**, “Sodium-Stuffed Open-Framework Quaternary Chalcogenide Built with  $(\text{Cu}_2\text{Ga}_6\text{S}_{18})_{16}$ -Ribbons Cross-Linked by Unusual Linear Cu(I) Pillars” *Inorg. Chem.*, 2021, **60 (16)**, 12059 – 12066.
8. A. Kalra, V. Bagchi, P. Paraskevopoulou, P. Das, L. Ai, Y. Sanakis, G. Raptopoulos, S. Mohapatra, **Amitava Choudhury**, Z. Sun, T. R. Cundari, P. Stavropoulos, “Is the Electrophilicity of the Metal Nitrene the Sole Predictor of Metal-Mediated Nitrene Transfer to Olefins? Secondary Contributing

- Factors as Revealed by a Library of High-Spin Co(II) Reagents” *Organometallics*, 2021, **40** (12), 1974 – 1996.
9. Srikanth Balijapelly, Prashanth Sandineni, Amit Adhikary, Nikolay N. Gerasimchuk, Aleksandr V. Chernatynskiy and **Amitava Choudhury**, “Ternary alkali ion thiogallates,  $A_5GaS_4$  ( $A = Li$  and  $Na$ ), with isolated tetrahedral building units and their ionic conductivities” *Dalton Trans*, 2021, **21**, 7372 – 7379.
  10. J. Bai, Richard K. Brow, C. W. Kim, Prashanth Sandineni, **Amitava Choudhury**, “Redox effects on the structure and properties of Na-Mo-Fe-phosphate glasses” *J. Non-Cryst Solids*, 2021, **557**, art. no. 120573.
  11. Prashanth Sandineni, Hooman Yaghoobnejad Asl, W. Zhang, P. Shib Halasyamani, Kartik Ghosh, **Amitava Choudhury**, “Interplay between Oxo and Fluoro in Vanadium Oxyfluorides for Centrosymmetric and Non-Centrosymmetric Structure Formation” *Molecules* (Basel, Switzerland) (Invited), 2021, **26** (3), 603.
  12. Subal Chandra Manna, Prashanth Sandineni, **Amitava Choudhury** “Low temperature hydrothermal synthesis of  $Na_3Fe_2(PO_4)_2F_3$  and its cathode electrochemistry in Na- and Li-ion batteries”, *J. Solid State Chem.*, 2021, **295**, art. no. 121922.
  13. Prashanth Sandineni, Pranal Madria, Kartik Ghosh, **Amitava Choudhury**, “A square channel vanadium phosphite framework as high voltage cathode for Li- and Na- ion batteries”, *Mater. Adv.*, 2020, **1**, 698-707.
  14. Amit Adhikary, Hooman Yaghoobnejad Asl, Prashanth Sandineni, Srikanth Balijapelly, Sudip Mohapatra, S. Khatua, Sanjit Konar, Nick Gerasimchuk, Alex Chernatynskiy, **Amitava Choudhury**, “Unusual Atmospheric Water Trapping and Water Induced Reversible Restacking of 2D Gallium Sulfide Layers in  $NaGaS_2$  Formed by Supertetrahedral Building Unit” *Chem. Mater.*, 2020, **32** (13), 5589-5603.
  15. Prashanth Sandineni, Kartik Ghosh, **Amitava Choudhury**, “Electrochemistry of illusive barbosalite,  $Fe^{2+}Fe^{3+}_2(PO_4)_2(OH)_2$ : An iron phosphate related to lipscombite structure”, *J. Electrochem. Soc.*, 2019, **166** (15), A3585-A3592.
  16. Prashanth Sandineni, Hooman Yaghoobnejad Asl, Nikolay Gerasimchuk, Kartik Ghosh and **Amitava Choudhury**, “Soft chemical routes to electrochemically active iron phosphates” *Inorg. Chem.*, 2019, **58** (7), 4117 – 4133.
  17. Vivek Bagchi, Anshika Kalra, Purak Das, Patrina Paraskevopoulou, Saidulu Gorla, Lin Ai, Qiuwen Wang, Sudip Mohapatra, **Amitava Choudhury**, Zhicheng Sun, Z., Thomas R. Cundari, Pericles “Stavropoulos, Comparative Nitrene-Transfer Chemistry to Olefinic Substrates Mediated by a Library of Anionic Mn(II) Triphenylamido-Amine Reagents and M(II) Congeners ( $M = Fe, Co, Ni$ ) Favoring Aromatic over Aliphatic Alkenes” *ACS Catalysis*, 2018, **8** (10), 9183 – 9206.
  18. Hooman Yaghoobnejad Asl, Kartik Ghosh and **Amitava Choudhury**, “A highly fluorinated lithium iron phosphate with interpenetrating lattices: electrochemistry and ionic conductivity” *Dalton Trans.*, 2017, **46**, 12588 – 12596.
  19. Sudip Mohapatra, Amit Adhikary, Kartik Ghosh, **Amitava Choudhury**, “Magnetically Frustrated Quaternary Chalcogenides with Interpenetrating Diamond Lattices” *Inorg. Chem.*, 2017, **56** (14), 7650-7656.
  20. **Amitava Choudhury**, Sudip Mohapatra, Hooman Yaghoobnejad Asl, Seng Huat Lee, Yew San Hor, Julia E. Medvedeva, Devon L. McClane, Gregory E. Hilmas, Michael A. McGuire, Andrew F. May, Hsin Wang, Shreeram Dash, Aaron Welton, Punit Boolchand, Kasey P. Devlin, Jennifer Aitken, Regine Herbst-Irmer, Václav Petříček, “New insights into the structure, chemistry, and properties of  $Cu_4SnS_4$ ” *J. Solid State Chem.*, 2017, **253**, 192 - 201.

21. Anand Pariyar, Hooman Yaghoobnejad Asl, and **Amitava Choudhury**, “Tetragonal versus Hexagonal: Structure Dependent Catalytic Activity of Co-Zn Bimetallic Metal Organic Frameworks” *Inorg. Chem.* 2016, **55** (18), 9250 – 9257.
22. Hooman Yaghoobnejad Asl and **Amitava Choudhury**, “A Combined Theoretical and Experimental Approach to the Discovery of Electrochemically Active Mixed Polyanionic Phosphatonitrates,  $AFePO_4NO_3$  ( $A = NH_4/Li, K$ )” *Chem. Mater.* 2016, **28** (14), 5029 – 5036.
23. Anand Pariyar, Joseph Stansbery, Rajankumar L. Patel, Xinhua Liang, **Amitava Choudhury**, “The ubiquitous paddle-wheel building block in two-dimensional coordination polymers with square grid structure” *J. Coord. Chem.*, 2016, **69** (11-13), 1957 – 1969. (Invited peer reviewed research article for a special issue on Emerging Leaders).
24. Anand Pariyar, Siddharth Gopalakrishnan, Joseph Stansbery, Rajankumar L. Patel, Xinhua Liang, Nikolay Gerasimchuk and **Amitava Choudhury**, “A 1-D coordination polymer route to catalytically active  $Co@C$  nanoparticle” *RSC Advances*, 2016, **6**, 38533 – 38540.
25. Prashanth Sandineni, Hooman Yaghoobnejad Asl, **Amitava Choudhury**, “Kagomé lattices as cathode: Effect of particle size and fluoride substitution on electrochemical lithium insertion in sodium- and ammonium Jarosites” *J. Solid State Chem.*, 2016, **242**, 78 – 86. (Invited peer reviewed research article for a special issue on energy)
26. Hooman Yaghoobnejad Asl, Ronetta Morris, T. Thao Tran, P. Shiv Halasyamani, Kartik Ghosh, **Amitava Choudhury**, “A Cubic Non-Centrosymmetric Mixed-Valence Iron Borophosphate-Phosphite” *Cryst. Growth Des.* 2016, **16**(3), 1187 – 1194.
27. Amit Adhikary, Sudip Mohapatra, Seng Huat Lee, Yew San Hor, Puja Adhikari, Wai-Yim Ching, **Amitava Choudhury**, “Metallic Ternary Telluride with Sphalerite Superstructure” *Inorg. Chem.* 2016, **55**(5), 2114 – 2122.
28. Hooman Yaghoobnejad Asl, Patrick Stanley, Kartik Ghosh, and **Amitava Choudhury**, “Iron Borophosphate as a Potential cathode for Lithium- and Sodium-ion Batteries” *Chem. Mater.* 2015, **27**(20), 7058 – 7069.
29. Hooman Yaghoobnejad Asl and **Amitava Choudhury**, “Phosphite as Polyanion-Based Cathode for Li-Ion Battery: Synthesis, Structure, and Electrochemistry of  $LiFe(HPO_3)_2$ ” *Inorg. Chem.* 2015, **54**(13), 6566 – 6572.
30. Hooman Yaghoobnejad Asl, Kartik Ghosh, Melissa P. Vidal Meza and **Amitava Choudhury**, “ $Li_3Fe_2(HPO_3)_3Cl$ : an electroactive iron phosphite as a new polyanionic cathode material for Li-ion battery” *J. Mater. Chem. A*, 2015, **3**, 7488 – 7497.
31. **Amitava Choudhury**, K. Ghosh, F. Grandjean, G. J. Long, Peter K. Dorhout, “Structural, optical, and magnetic properties of  $Na_8Eu_2(Si_2S_6)_2$  and  $Na_8Eu_2(Ge_2S_6)_2$ : Europium(II) quaternary chalcogenides that contain an ethane-like  $(Si_2S_6)_6^-$  or  $(Ge_2S_6)_6^-$  moiety” *J. Solid State Chem.*, 2015, **226**, 74 – 80.
32. Hooman Yaghoobnejad Asl and **Amitava Choudhury**, “Phosphorous acid route synthesis of iron tavorite phases,  $LiFePO_4(OH)_xF_{1-x}$  [ $0 \leq x \leq 1$ ] and comparative study of their electrochemical activities” *RSC Adv.*, 2014, **4**, 37691-37700.
33. Akira Saitoh, Naoto Kitamura, Lina Ma, Parker Freudenberger, **Amitava Choudhury**, Hiromichi Takebe, Richard K. Brow, “Structural study of chemically durable  $BaO-FeO_x-P_2O_5$  glasses by Mössbauer spectroscopy and high performance liquid chromatography” *J. Non-Cryst Solids*, 2017, **460**, 106 – 112.
34. Nikolaos Levesanos, Wipula P. R. Liyanage, Eleftherios Ferentinos, Grigorios Raptopoulos, Patrina Paraskevopoulou, Yiannis Sanakis, **Amitava Choudhury**, Pericles Stavropoulos, Manashi Nath, Panayotis Kyritsis, “Investigating the Structural, Spectroscopic, and Electrochemical Properties of

[Fe{(EPiPr)<sub>2</sub>N}<sub>2</sub>] (E = S, Se) and the Formation of Iron Selenides by Chemical Vapor Deposition” *Eur. J. Inorg. Chem.* 2016, 5332 – 5339.

35. Rajankumar L. Patel, Y. –B. Jiang, **Amitava Choudhury**, X. Liang, “Employing Synergetic Effect of Doping and Thin Film Coating to Boost the Performance of Lithium-Ion Battery Cathode Particles” *Scientific Reports*, 2016, **6**, art. no. 25293.
36. Debatra Narayan Neogi, Satyadeep Singh Chhetri, Purak Das, Achintesh Narayan Biswas, **Amitava Choudhury**, Pinaki Bandyopadhyay, “Role of auxiliary donors in tuning the selectivity of C-H activation in arylazonaphthalenes by palladium(II) : Isolation and photoisomerization of isomeric cyclopalladates” *J. Indian Chem. Soc.* 2015, **92**, 1783 – 1790.
37. Rajankumar L. Patel, Hui Xie, Jonghyun Park, Hooman Yaghoobnejad Asl, **Amitava Choudhury**, Xinhua Liang, “Significant Capacity and Cycle-Life Improvement of Lithium-Ion Batteries through Ultrathin Conductive Film Stabilized Cathode Particles” *Adv. Mater. Interfaces*, 2015, **2(8)**, 1500046/1-1500046/9.
38. **Amitava Choudhury** and Peter K. Dorhout, “Alkali-Metal Thiogermanates: Sodium Channels and Variations on the La<sub>3</sub>CuSiS<sub>7</sub> Structure Type” *Inorg. Chem.*, 2015, **54**, 1055 – 1065. (Invited peer reviewed article, John Corbett Special issue)
39. A. Kejriwal, A. N. Biswas, **Amitava Choudhury**, P. Bandyopadhyay, “Diferic oxo-bridged complexes of a polydentate aminopyridyl ligand: Synthesis, structure and catalytic reactivity” *Trans. Met. Chem.*, 2014, **39**, 909 - 915.
40. L. Ma, R. K. Brow, **Amitava Choudhury**, “Structural study of Na<sub>2</sub>O-FeO-Fe<sub>2</sub>O<sub>3</sub>-P<sub>2</sub>O<sub>5</sub> glasses by Raman and Mössbauer spectroscopy”, *J. Non-Cryst. Solids*, 2014, **402**, 64-73.
41. V. Bagchi, P. Paraskevopoulou, P. Das, L. Chi, Q. Wang, **Amitava Choudhury**, J. S. Mathieson, L. Cronin, D. B. Pardue, T. R. Cundari, G. Mitrikas, Y. Sanakis, P. Stavropoulos, “A versatile tripodal Cu(I) reagent for C-N bond construction via nitrene-transfer chemistry: Catalytic perspectives and mechanistic insights on C-H aminations/amidinations and olefin aziridinations”, *J. Am. Chem. Soc.*, 2014, **136 (32)**, 11362-11381.
42. A. N. Biswas, D. N. Neogi, P. Das, **Amitava Choudhury**, P. Bandyopadhyay, “Regioselective and regiospecific C(naphthyl)-H bond activation: Isolation, characterization, crystal structure and TDDFT study of isomeric cyclopalladates”, *J. Organomet. Chem.* 2014, **761**, 147-155.
43. J. K. Mistry, R. Dawes, **Amitava Choudhury**, M. R. Van De Mark, “5-Mercapto-1,3,4-thiadiazole-2(3H)-thione: Synthesis and structure of alkylated derivatives”, *J. Heterocyclic Chem.*, 2014, **51 (3)**, 747-754.
44. Shibnath Ghatak, Alok Vyas, Suniti Misra, Paul O'Brien, Ajit Zambre, Victor M. Fresco, Roger R. Markwald, K. Venkateshwara Swamy, Zahra Afrasiabi, **Amitava Choudhury**, Madhukar Khetmalas, Subhash Padhye, “Novel di-tertiary-butyl phenylhydrazones as dual cyclooxygenase-2/5-lipoxygenase inhibitors: Synthesis, COX/LOX inhibition, molecular modeling, and insights into their cytotoxicities” *Bioorg. Med. Chem. Lett.* 2014, **24(1)**, 317 - 324.
45. Z. Afrasiabi, P. Stovall, K. Finley, **Amitava Choudhury**, C. Barnes, A. Ahmad, F. Sarkar, A. Vyas, S. Padhye, "Targeting triple negative breast cancer cells by N<sub>3</sub>-substituted 9,10-Phenanthrenequinone thiosemicarbazones and their metal complexes" *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, 2013, **114**, 114 - 119.
46. Z. Afrasiabi, R. Almudhafar, D. Xiao, E. Sinn, **Amitava Choudhury**, A. Ahmad, A. Vyas, F. Sarkar, S. Padhye, "Metal-based anticancer agents: Targeting androgen-dependent and androgen-independent prostate and COX-positive pancreatic cancer cells by phenanthrenequinone semicarbazone and its metal complexes" *Transition Metal Chemistry*, 2013, **38 (6)**, 665 - 673.

47. V. Bagchi, G. Raptopoulos, P. Das, S. Christodoulou, Q. Wang, L. Ai, **Amitava Choudhury**, M. Pitsikalis, P. Paraskevopoulou, P. Stavropoulos, "Synthesis and characterization of a family of Co(II) triphenylamido-amine complexes and catalytic activity in controlled radical polymerization of olefins" *Polyhedron*, 2013, **52**, 78 - 90.
48. **Amitava Choudhury**, Fernande Grandjean, Gary J. Long, and Peter K. Dorhout, "Na<sub>1.515</sub>EuGeS<sub>4</sub>, a Three-Dimensional Crystalline Assembly of Empty Nano-tubes Constructed with Europium(II/III) Mixed Valence Ions", *Inorg. Chem.* 2012, **51**, 11779-11786.
49. A. N. Biswas, P. Das, S. Sengupta, **Amitava Choudhury**, P. Bandyopadhyay, "C(naphthyl)-H bond activation by rhodium: isolation, characterization and TD-DFT study of the cyclometallates", *RSC Advances* 2011, **1**, 1279.
50. A. N. Biswas, P. Das, V. Bagchi, **Amitava Choudhury**, P. Bandyopadhyay, "Regiospecific C(naphthyl)-H bond activation by platinum(II)-isolation characterization, reactivity and TD-DFT study of the cycloplatinate complexes", *Eur. J. Inorg. Chem.* 2011, **25**, 3739.
51. S. R. Finch, J. P. Harper, **Amitava Choudhury**, E. Sinn, H. L. Collier, "Bis[2-(1H-imidazol-2-yl-κN3)-1H-imidazol-3-ium]silver(I) trinitrate", *Acta Cryst.* 2011, **E67**, m909.
52. P. Paraskevopoulou, L. Ai, Q. Wang, D. Pinnapareddy, R. Acharyya, R. Dinda, P. Das, R. Celenligil-Centin, G. Floros, Y. Sanakis, **Amitava Choudhury**, N. P. Rath and P. Stavropoulos, "Synthesis and characterization of a series of structurally and electronically diverse Fe(II) complexes featuring a family of triphenylamido-Amine ligands", *Inorg. Chem.* 2010, **49**, 108.

#### **Recent conferences and presentations:**

1. Sutapa Bhattacharya, Santhoshkumar Sundaramoorthy, and Amitava Choudhury, "Transition metal selenites as cathode materials for rechargeable batteries" ACS Midwest Regional Meeting, Springfield, 2021, October 20 – October 22.
2. Srikanth Balijapelly, Karthik Ghosh, Amitava Choudhury, Synthesis of new quaternary thiophosphates through building block approach, ACS Midwest Regional Meeting, Springfield, 2021, October 20 – October 22.
3. Santhoshkumar Sundaramoorthy, Srikanth Balijapelly and Amitava Choudhury, "Chalcogen based cathodes for reversible Na-ion storage." ACS Midwest Regional Meeting, Springfield, 2021, October 20 – October 22.
4. Amitava Choudhury (Invited talk), Enhancing the capacity of rechargeable Li-ion batteries through a combination of anion and cation redox. Missouri State University, 08/22/21
5. Amitava Choudhury (Invited talk), Rechargeable batteries: From lithium ion to sodium ion and cation redox to anion redox. 'Recent advances in condensed matter and material science' conference attendees, organized by Department of Chemistry and Physics, Cooch Behar Panchanan Barma University, India, 07/13/2021 (zoom).
6. Srikanth Balijapelly and Amitava Choudhury, A series of complex chalcogenides with Makovickyite structure-type possessing ultra-low thermal conductivity. North American Solid State Conference, University of Southern California, 2021, July 28 – July 31
7. Santhoshkumar Sundaramoorthy, Srikanth Balijapelly and Amitava Choudhury, "New Sulfide based Cathodes for Na-ion Batteries." North American Solid-State Conference, University of Southern California, 2021, July 28 – July 31.
8. Srikanth Balijapelly, Ashlee Hauble, Mathew Pollard, Yew San Hor, Susan M. Kauzlarich, and Amitava Choudhury, Ultralow lattice thermal conductivity through the interplay of

composition and disorder in complex chalcogenides” VCT 2021, July 20-21 (Virtual conference on thermoelectrics by International thermoelectric society)

9. Srikanth Balijapelly, Qi Zhang, Santhoshkumar Sundaramoorthy, Prashanth Sandineni, Aleksandr V. Chernatynskiy, Amitava Choudhury, Interlocked chalcogenide lattice showing high sodium-ion conductivity and facile electrochemistry, 239<sup>th</sup> ECS Meeting: Digital presentation, Chicago, May 30-June 3, 2021
10. Amitava Choudhury (Invited talk), In search for cost-effective high energy density rechargeable batteries: From lithium ion to sodium ion and cation redox to anion redox. Middle Tennessee State University, **11/13/2020 (zoom)**
11. Amit Adhikary, Srikanth Balijapelly, Prashanth Sandineni, Hooman Yaghoobnejad Asl, Aleksandr Chernatynskiy, and Amitava Choudhury, “Water induced reversible restacking of 2D gallium sulfide layers.” North American Solid State Conference (NASSC), July 31- Aug. 2, 2019, Golden, Colorado. (Poster)
12. Prashanth Sandineni and Amitava Choudhury, “A square channel vanadium phosphite framework as cathode for Li- and Na- ion batteries.” 235th ECS meeting, May 26-30, 2019, Dallas, TX. (Oral)
13. Amitava Choudhury and Prashanth Sandineni, “Soft chemical routes to new iron phosphates and their electrochemical properties.” Gordon Research Conference, July 22-27, 2018, Colby-Sawyer College, New London, NH. (Poster)
14. Amitava Choudhury, Subal Manna, and Prashanth Sandineni, “One Step Soft-Chemical Approach Towards the Synthesis of  $\text{Na}_3\text{V}_2\text{O}_2(\text{PO}_4)_2\text{F}$  and Its Electrochemical Properties in Na- and Li-Ion Batteries.” 233rd ECS Meeting (May 13-17, 2018), Seattle. (Oral Presentation)
15. Prashanth Sandineni and Amitava Choudhury, “ $\text{NaFe}(\text{HPO}_4)_2$ : A new polyanion cathode material for alkali-ion batteries.” 231st ECS meeting, May 28-June 1, 2017, New Orleans, LA. (Oral)