Dr. P. Shiv Halasyamani

Education / Experience:

1988-1992	University of Chicago, B.Sc. (Honors) Chemistry
1992-1996	Northwestern University, Ph.D. Chemistry Advisor: Prof. Kenneth R. Poeppelmeier
1997-1998	Post-Doctoral Associate, University of Oxford
1998-1999	Junior Research Fellow, Christ Church, University of Oxford Advisor: Prof. Dermot O'Hare
1999-2005	Assistant Professor, Department of Chemistry, University of Houston
2005-2008	Graduate Chairman, Department of Chemistry, University of Houston
2005-2010	Associate Professor, Department of Chemistry, University of Houston
2010-present	Professor, Department of Chemistry, University of Houston

Awards and Honors:

2001	NSF Career Award
2002	Beckman Young Investigator
2003	ExxonMobil Solid State Faculty Award
2004	Excellence in Research Award (UH) - Assistant Professor Level
2007-2010	Editorial Advisory Board: Inorganic Chemistry
2008-2013	Associate Editor: Materials Research Bulletin
2008-2016	Russian Science Foundation Reviewer
2008	Guest Editor: Inorganic Chemistry – Functional Inorganic Materials
2008-present	Adjunct Professor: Xinjiang Tech. Inst. of Physics and Chemistry – Chinese Academy of Sciences
2009	Excellence in Research Award (UH) - Associate Professor Level
2010	UH Honors Society Fellow
2010	Dow Lecturer – University of Minnesota
2011	Visiting Professor for International Scientists – Chinese Academy of Sciences
2012	Guest Editor: Journal of Solid State Chemistry – Polar Inorganic Materials
2013-present	Editorial Advisory Board: Chemistry of Materials
2013-2015	Peer Review Panel Member - Diamond Light Source UK
2013-present	Associate Editor: Inorganic Chemistry
2014-present	ORNL Neutron Sciences Review Committee
2014-2015	European Research Council Panelist
2014	Roy-Somiya Award: International Solvothermal and Hydrothermal Assoc.
2015	High-End Foreign Experts Project Award - CAS People's Rep. China
2016	Norwegian Centre of Excellence Reviewer
2016-present	Beckman Young Investigator Reviewer and Panelist
2017	Irish Research Council Reviewer
2018-present	Beckman Foundation Executive Committee Member

Patents:

"Ferroelectric fluoride compositions and methods of making and using same" US Patent No. 8,999,189; Chang, H.Y. and Halasyamani, P.S., **April 7, 2015**.

"Method for the Crystal Growth of New Functional Materials" (Patent Pending); Zhang, W. and Halasyamani, P.S., November **2011**.

"A Nonlinear Optical Material and Methods of Fabrication" (Patent Pending); Yu, H. and Halasyamani, P.S., April **2015**.

195 Peer-Reviewed Publications: ISI index h = 50 (> 7700 citations), Google Scholar index h = 55 (> 10100 citations)

1. Halasyamani, P.S. and Zhang, W., *Viewpoint: Inorganic Materials for UV and Deep-UV Nonlinear Optical Applications*, Inorg. Chem., 56, *12077-12085*, **2017**.

2. Zhu, T., Cohen, T., Gibbs, A., Zhang W., Halasyamani, P.S., Hayward, M., and Benedek, N., *Theory and Neutrons Combine to Reveal A Family of Layered Perovskites Without Inversion Symmetry*, Chem. Mater., 29, *9489-9497*, **2017**.

3. Zhang, W. and Halasyamani, P.S., *Crystal Growth and Optical Properties of a UV Nonlinear Optical Material $KSrCO_3F$*, CrystEngComm, 19, *4742-4748*, **2017**.

4. Zhang, R., Gibbs, A. S., Zhang, W., Halasyamani, P.S., and Hayward, M.A., *Structural modification of the cation-ordered Ruddlesden-Popper phase $YSr_2Mn_2O_7$ by cation exchange and anion insertion*, Inorg. Chem., 56, *9988-9995*, **2017**.

5. Ali, S.I., Zhang, W., Halasyamani, P.S., Johnsson, M., *$Zn_3Sb_4O_6F_6$: Hydrothermal synthesis, Crystal Structure, and Nonlinear Optical Properties*, J. Solid State Chem., 256C, *158-161*, **2017**.

6. Wu, H., Yu, H., Zhang, W., Cantwell, J., Poeppelmeier, K.R., Pan, S., and Halasyamani, P.S., *Crystal Growth, Linear and Nonlinear Optical Properties of KIO_3 . $Te(OH)_6$*, Cryst. Growth and Des., 17, *4405-4412*, **2017**.

7. Yu, H., Young, J., Wu, H., Zhang, W., Rondinelli, J.M., and Halasyamani, P.S., *The Next Generation of Nonlinear Optical Material $Rb_3Ba_3Li_2Al_4B_6O_{20}F$ - Synthesis, Characterization, and Crystal Growth*, Adv. Opt. Mater., *1700840*, **2017**.

8. Ghara, S., Suard, E., Francois, F., Tran, T.T., Halasyamani, P.S., Iyo, A., Rodriguez-Carvajal, J., and Sundaresan, A.*, Ordered aeschynite-type polar magnets $RFeWO_6$ (R = Dy, Eu, Tb, and Y): A new family of type-II multiferroics*, Phys. Rev. B., 95, *224416*, **2017**.

9. Wu, H., Yu, H., Pan, S., and Halasyamani, P.S., *A Deep-Ultraviolet NLO Material $K_3Sr_3Li_2Al_4B_6O_{20}F$: Addressing the Structural Instability Problem in $KBe_2BO_3F_2$*, Inorg. Chem., 56, *8755-8758*, **2017**.

10. Zhang, W., Yu, H., Wu, H., and Halasyamani, P.S., *Phase-Matching in Nonlinear Optical Compounds: A Materials Perspective*, Chem. Mater., 29, *2655-2668*, **2017**.

11. Yu, H., Young, J., Wu, H., Zhang, W., Rondinelli, J.M., and Halasyamani, P.S., *$M_4Mg_4(P_2O_7)_3$ (M = K, Rb): Structural Engineering of Pyrophosphates for NLO Applications*, Chem. Mater., 29, *1845-1855*, **2017**.

12. Wu, H., Yu, H., Zhang, W., Cantwell, J., Poeppelmeier, K.R., Pan, S., and Halasyamani, P.S., *Top-Seeded Solution Crystal Growth, Linear and Nonlinear Optical Properties of $Ba_4B_{11}O_{20}F$ (BBOF)*, Cryst. Growth Des., 17, *1404-1410*, **2017**.

13. Tran, T.T., Koocher, N.Z., Rondinelli, J.M., and Halasyamani, P.S., *Be-free β-$Rb_2Al_2B_2O_7$ (β-RABO) as a Possible Deep-Ultraviolet Nonlinear Optical Material Replacement for $KBe_2BO_3F_2$ (KBBF)*, Angew. Chemie, 56, *2969-2973*, **2017**.

14. Olchowka, J., Colmont, M., Aliev, A., Tran, T.T., Halasyamani, P.S., Hagemann, H.R., and Mentré, O., *New oxo-centered bismuth oxo-arsenates; Critical effect of PO_4 for AsO_4 substitution*, CrystEngComm, 19, *936-945*, **2017**.

15. Tran, T.T., Young, J., Rondinelli, J.M., and Halasyamani, P.S., *Mixed-Metal Carbonate Fluorides as Deep-Ultraviolet Non-linear Optical Materials*, J. Am. Chem. Soc., 139, *1285-1295*, **2017**.

16. Abeysinghe, D., Smith, M.D., Yeon, J., Tran, T.T., Halasyamani, P.S., and zur Loye, H.-C., *Crystal Growth and Structure Analysis of $Ce_{18}W_{10}O_{57}$: A Complex Oxide Containing Tungsten in an Unusual Trigonal Prismatic Coordination Environment*, Inorg. Chem., 56, *2566-2575*, **2017**.

17. Geng, L., Li, Q., Yan, H., Dai, K., and Halasyamani, P.S., *Sb-based Antiferromagnetic Oxychlorides: $MSb_2O_3(OH)Cl$ (M = Mn, Fe, Co) with 2D Spin-Dimer Structures*, Dalton Trans., 45, *18183-18189*, **2016**.

18. Khatri, N., Pablico-Lansigan, M., Boncher, W., Mertzman, J., Labatete, A., Grande, L., Wunder, D., Prushan, M., Zhang, W., Halasyamani, P.S., de-Bettencourt-Dias, A., and Stoll, S., *Luminescence and NonLinear Optical Properties in Copper (I) Halide Extended Networks*, Inorg. Chem., 55, *11408-11417*, **2016**.

19. Cochrane, A.K., Telfer, M., Dixon, C. A. L., Zhang, W., Halasyamani, P.S., Bousquet, E., and Lightfoot, P., *$NdBaScO_4$: aristotype of a new family of geometric ferroelectrics*, Chem. Commun., 52, *10980-10983*, **2016**.

20. Tran, T.T., Yu, H., Rondinelli, J.R., Poeppelmeier, K.R., and Halasyamani, P.S., *Deep Ultraviolet Nonlinear Optical Materials*, Chem. Mater., 28, *5238-5258*, **2016**.

21. Zhang, R., Abbet, B.M., Read, G., Lang, F., Lancaster, T., Tran, T.T., Halasyamani, P.S., Blundell, S.J., Benedek, N.A., and Hayward, M.A., *$La_2SrCr_2O_7$: Controlling the tilting distortions of n = 2 Ruddlesden-Popper phases through A-site cation order*, Inorg. Chem., 55, *8951-8960*, **2016**.

22. Zhang, W., Yu, H., Wu, H., and Halasyamani, P.S., *Crystal Growth and associated properties of a nonlinear optical crystal - $Ba_2Zn(BO_3)_2$*, Crystals, 6, *68-74*, **2016**.

23. Zhang, W., Yu, H., Cantwell, J., Wu, H., Poeppelmeier, K.R., and Halasyamani, P.S., *$LiNa_5Mo_9O_{30}$: Crystal Growth, Linear and Non-linear Optical Properties*, Chem. Mater., 28, *4483-4491*, **2016**.

24. Yu, H., Cantwell, J., Wu, H., Zhang, W., Poeppelmeier, K.R., and Halasyamani, P.S., *Top-Seeded Solution Crystal Growth, Morphology, Optical and Thermal Properties of $Ba_3(ZnB_5O_{10})PO_4$ (BZBP)*, Cryst. Growth Des., 16, *3976-3982*, **2016**.

25. Yu, H., Young, J., Wu, H., Zhang, W., Rondinelli, J.M., and Halasyamani, P.S., *Electronic, Crystal Chemistry, and Nonlinear Optical Property Relationships in the Dugganite $A_3B_3CD_2O_{14}$ Family (A = Sr, Ba or Pb; B = Mg or Zn; C = Te or W, and D = P or V)*, J. Am. Chem. Soc., 138, *4984-4989*, **2016**.

26. Kim, H.G., Tran, T.T., Choi, W., You, T.-S., Halasyamani, P.S., and Ok, K.M., *Two New Noncentrosymmetric (NCS) n = 3 Layered Dion-Jacobson (DJ) Perovskites: Polar $RbBi_2Ti_2NbO_{10}$ and Nonpolar $CsBi_2Ti_2TaO_{10}$,* Chem. Mater., 28, *2424-2432*, **2016**.

27. Morrison, G., Tran, T. T., Halasyamani, P.S., and zur Loye, H.-C., *$K_8(K_5F)U_6Si_8O_{40}$: The First Intergrowth Uranyl Silicate*, Inorg. Chem., 55, *3215-3217*, **2016**.

28. Zhang, W. and Halasyamani, P.S., *Top-seeded solution crystal growth of Noncentrosymmetric and Polar Zn_2TeMoO_7 (ZTM)*, J. Solid State Chem., 236, *32-38*, **2016**.

29. Yu, H., Zhang, W., and Halasyamani, P.S., *Large Birefringent Materials: $Na_6Te_4W_6O_{29}$ and $Na_2TeW_2O_9$ - Synthesis, structure, crystal growth, and characterization*, Cryst. Growth Des., 16, *1081-1087*, **2016**.

30. Yaghoobnejad A. H., Morris, R., Tran, T. T., Halasyamani, P.S., Ghosh, K., and Choudhury, A., *A Cubic Non-centrosymmetric Mixed-valence Iron Borophosphate-Phosphite*, Cryst. Growth Des., 16, *1187-1194*, **2016**.

31. Yu, H., Zhang, W., Young, J., Rondinelli, J.M., and Halasyamani, P.S., *Bidenticity Enhanced Second Harmonic Generation from Pb-Chelation in $Pb_3Mg_3TeP_2O_{14}$*, J. Am. Chem. Soc., 138, *88-91*, **2016**.

32. McCabe, E.E., Bousquet, E., Stockdale, C.P.J., Deacon, C.A., Tran, T.T., Halasyamani, P.S., Stennett, M.C., Hyatt, N.C., *Synthesis, structure and properties of $CsBi_2Ti_2NbO_{10}$: A new layered perovskite proper ferroelectric*, Chem. Mater., 27, *8298-8309*, **2015**.

33. Yu, H., Zhang, W., Young, J., Rondinelli, J.M., and Halasyamani, P.S., *Design and Synthesis of the Beryllium-Free Deep-Ultraviolet Nonlinear Optical Material $Ba_3(ZnB_5O_{10})PO_4$,* Adv. Mater., 27, *7380-7385*, **2015**. (**DOI:** 10.1002/adma.201503951)

34. Bohem, M. E., Pook, N.-P., Adam, A., Tran, T. T., Halasyamani, P. S., Entenmann, M., Schleid, T., *Luminescence and Scintillation Properties of $La_2[Si_2O_7]:Ce^{3+}$ functional pigment - A concept for UV-protection coatings*, Dyes and Pigments, 123, *331-340*, **2015**.

35. Tran, T.T., He, J., Rondinelli, J.M., and Halasyamani, P.S., *$RbMgCO_3F$ - A New Deep-Ultraviolet Nonlinear Optical Material*, J. Am. Chem. Soc., 137, *10504-10507*, **2015**.

36. Gerke, B., Tran, T. T., Pottgen, R., and Halasyamani, P.S., *^{119}Sn Mossbauer Spectroscopy of Solvothermally Synthesized Fluorides $ASnF_3$ (A = Na, K, Rb, Cs)*, Z. Naturforsch., 70, *765-767*, **2015**.

37. Latshaw, A.M., Wilkins, B.O., Hughey, K.D., Yeon, J., Williams, D.E., Tran, T.T., Halasyamani, P.S., and zur Loye, H.-C., *$A_5RE_4X[TO_4]_4$ Crystal Growth and Photoluminescene. Part 2. Fluoride Flux Synthesis of Sodium and Potassium Rare Earth Silicate Oxyfluorides*, CrystEngComm, 17, *4654-4661*, **2015**.

38. Kim, S.W., Zhang, R., Halasyamani, P.S., and Hayward, M.A., *$K_4Fe_3F_{12}$: An Fe^{2+}/Fe^{3+} charge-ordered, ferrimagnetic fluoride with a cation-deficient, layered perovskite structure*, Inorg. Chem., 54, *6647-6652*, **2015**.

39. Morrison, G., Smith, M.D., Tran, T.T., Halasyamani, P.S., and zur Loye, H.-C., *Synthesis and Structure of a New Pentanary Uranium (VI) Silicate: $K_4CaUSi_4O_{14}$*, CrystEngComm. 17, *4218-4224*, **2015**.

40. Yu, H., Wu, H., Jing, Q., Yang, Z. Halasyamani, P. S., and Pan, S., *Polar Polymorphism: α-, β-, and γ- $Pb_2Ba_4Zn_4B_{14}O_{31}$ - Synthesis, Characterization, and Nonlinear Optical Properties*, Chem. Mater., 27, *4779-4788*, **2015**.

41. Cortese, A., Wilkins, B., Smith, M., Yeon, J., Morrison, G., Tran, T.T., Halasyamani, P.S., and zur Loye, H.-C., *Crystal Growth of Four Oxovanadium(IV) Tartrates Prepared via a Mild Two Step Hydrothermal Method: Observation of Spin Dimer Behavior and Second Harmonic Generation*, Inorg. Chem., 54, *4011-4020*, **2015**.

42. Kim, Y.H, Tran, T.T., Halasyamani, P.S., and Ok, K.M., *Macroscopic polarity control with alkali metal cation size and coordination environment in a series of tin iodates*, Inorg. Chem. Frontiers, 2, *361-368*, **2015**.

43. Mandal, P., Manjob-Sanz, A., Corkett, A.J., Comyn, T.P., Dawson, K., Stevenson, T., Bennett, J., Henrichs, L.F., Bell, A.J., Nishibori, E., Takata, M., Zanella, M., Dolgos, M.R., Adem, U., Wan, X., Pitcher, M.J., Romani, S., Tran, T.T., Halasyamani, P.S., Claridge, J.B., and Rosseinsky, M.J., *Morphotropic Phase Boundary in the Pb-Free $(1-x)BiTi_{3/8}Fe_{2/8}Mg_{3/8}O_3$ - $xCaTiO_3$ System: Tetragonal Polarization and Enhanced Electromechanical Properties*, Adv. Mater., 27, *2883-2889*, **2015**.

44. Donakowski, M.D., Gautier, R., Lu, H., Tran, T.T., Cantwell, J., Halasyamani, P.S., and Poeppelmeier, K.R., *Synthesis of Two Vanadium Oxide-Fluoride Materials that Differ in Phase Matchability*, Inorg. Chem., 54, *765-772*, **2015**.

45. Cammarata, A., Zhang, W., Halasyamani, P.S., Rondinelli, J.M., *Microscopic Origins of Optical Second Harmonic Generation in Noncentrosymmetric-Nonpolar Materials,* Chem. Mater., 26, *5773-5781*, **2014**.

46. Patino, M.A., Smith, M., Zhang, W., Halasyamani, P.S., and Hayward, M.A., *Cation Exchange in a 3D Perovskite - Synthesis of $Ni_{0.5}TaO_3$*, Inorg. Chem., 53, *8020-8024*, **2014**.

47. Tran, T.T., Halasyamani, P.S., and Rondinelli, J., *Role of Acentric Displacements on the Crystal Structure and Second-Harmonic Generating Properties of $RbPbCO_3F$ and $CsPbCO_3F$*, Inorg. Chem., 53, *6241-6251*, **2014**.

48. Greenblatt, M., Retuerto, M., Li, M., Ignatov, A., Croft, M., Hodges, J., Tran, T.T. and Halasyamani, P.S., *Crystallographic and magnetic properties of $Pb_{2-x}Bi_xIr_2O_{7-d}$,* Mater. Res. Express, 1, *046304/1 - 046304/12*, **2014**.

49. Thao, T.T. and Halasyamani, P.S., *Synthesis and Characterization of $ASnF_3$ ($A = Na^+, K^+, Cs^+$),* J. Solid State Chem., 210, *213-218*, **2014**.

50. Aliev, A., Endara, D., Huve, M., Colmont, M., Roussel, P., Tran, T. T., Halasyamani, P.S., and Mentre, O., *Labile degree of disorder in Bismuth-oxyphosphates compounds: illustration through three new structural types*, Inorg. Chem., 53, *861-871*, **2014**.

51. Holland, M, Donakowski, M.D., Pozzi, E.A., Rasmussen, A.M., Tran, T.T., Pease-Dodson, S.E., Halasyamani, P.S., Seideman, T., Van Duyne, R.P., Poeppelmeier, K.R., *Polar Alignment of Lambda-Shaped Basic Building Units within Transition Metal Oxide Fluoride Materials,* Inorg. Chem., 53, *221-228*, **2014**.

52. Luo, K., Tran, T.T., Halasyamani, P.S., and Hayward, M.A., *Synthesis and Selective Topochemical Fluorination of the cation and anion-vacancy ordered phases Ba_2YCoO_5 and $Ba_3YCo_2O_{7.5}$,* Inorg. Chem., 52, *13762-13769*, **2013**.

53. Pachoud, E., Zhang, W., Tapp, J., Liang, K.-C., Lorenz, B., Chu, C.W., and Halasyamani, P.S., *Single Crystal Growth, Structure, and Physical Properties of $LiCrP_2O_7$*, Cryst. Growth Des., 13, *5473-5480*, **2013**.

54. Yeon, J., Smith, M.D., Sefat, A.S., Tran, T.T., Halasyamani, P.S., zur Loye, H.C., *$U_3F_{12}(H_2O)$, a Non-Centrosymmetric Uranium Fluoride Prepared via a Convenient In-Situ Route that Creates of U^{4+} Cations under Mild Hydrothermal Conditions*, Inorg. Chem., 52, *8303-8305*, **2013**.

55. Retuerto, M., Li, M.R., Go, Y.B., Ignatov, A., Croft, M., Ramanujachary, K.V., Herber, R.H., Nowik, I., Hodges, J.P., Dachraui, W., Hadermann, J., Van Tendeloo, G., Tran, T.T., Halasyamani, P.S., Greenblatt, M., *Polar and magnetic layered A-Site and rock salt B-Site Ordering $NaLnFeWO_6$ (Ln = La, Nd) perovskites*, Inorg. Chem, 52, *12482-12491*, **2013**.

56. Reger, D.L., Leitner, A., Smith, M.D., Tran, T.T., and Halasyamani, P.S., *Homochiral Helical Metal-Organic Frameworks of Group 1 Metals using Enantiopure Ligands Containing a 1,8-Naphthalimide Group*, Inorg. Chem., 52, *10041-10051*, **2013**.

57. Lu, H.; Gautier, R.; Donakowski, M.; Tran, T. T.; Edwards, B.; Nino, J.; Halasyamani, P.S.; Liu, Z.; Poeppelmeier, K.R., *Non-Linear Active Materials: An Illustration of Controllable Phase Matchability***,** J. Am. Chem. Soc., 135, *11942-11950*, **2013**.

58. Li, M.-R, Walker, D., Retuerto, M., Sarkar, T., Hadermann, J. Stephens, P.W., Croft, M., Ignatov, A., Hemberger, J., Nowik, I., Halasyamani, P.S., Tran, T.T., Mukherjee, S., Dasgupta, T.S., Greenblatt, M., *Polar Mn_2FeMO_6 (M = Nb, Ta) with $LiNbO_3$-type Structure - High Pressure Synthesis,* Angew. Chemie, 52, *8406-8410*, **2013**.

59. Yeon, J., Sefat, A.A., Tran, T.T., Halasyamani, P.S., zur Loye, H.-C., *Crystal Growth, Structure, Polarization and Magnetic Properties of Cesium Vanadate, $Cs_2V_3O_8$: A Structure-Property Study*, Inorg. Chem., 52, *6179-6186*, **2013**.

60. Luo, K., Johnson, R.D., Tran, T.T., Halasyamani, P.S., Radaelli, P.G., and Hayward, M.A., *$Ba_2YFeO_{5.5}$ – A Ferromagnetic Pyroelectric Phase Prepared by Topochemical Oxidation*, Chem. Mater., 25, *1800-1808*, **2013**.

61. Lee, E.P., Lee, D.W., Cho, Y.-H., Tran, T.T., Halasyamani, P.S., and Ok, K.M., *Large scale synthesis, second-harmonic generation, and piezoelectric properties of a noncentrosymmetric vanadium phosphate, Li_2VPO_6*, J. Solid State Chem., 202, *22-26*, **2013**.

62. Halasyamani, P.S., *Chemistry of Polar Transition Metal Oxides*, In: Comprehensive Inorganic Chemistry II, Vol. 2., Eds. Jan Reedijk and Kenneth R. Poeppelmeier, Oxford, Elsevier Press, *41-61*, **2013**.

63. Nguyen, S. D. and Halasyamani, P.S., Synthesis, *Structure, and Characterization of Two New Polar Sodium Tungsten Selenites: $Na_2(WO_3)_3(SeO_3)$. $2H_2O$ and $Na_6(W_6O_{19})(SeO_3)_2$*, Inorg. Chem., 52, *2637-2647*, **2013**.

64. Tran, Thao T. and Halasyamani, P.S., *New Fluoride Carbonates: Centrosymmetric $KPb_2(CO_3)_2F$ and Noncentrosymmetric $K_{2.70}Pb_{5.15}(CO_3)_5F_3$*, Inorg. Chem., 52, *2466-2473*, **2013**.

65. Andriyevsky, B., Yeon, J., Halasyamani, P.S., Pilz, T., Doll, K., and Jansen, M., *DFT-based ab-initio study of dielectric and optical properties of bulk $Li_2B_3O_4F_3$ and $Li_2B_6O_9F_2$*, J. Phys. Chem. Solids, 74, *617-623*, **2013**.

66. Olshansky, J.H., Tran, T.T., Zeller, M, Halasyamani, P.S., Schrier, J., and Norquist, A.J., *The role of hydrogen-bonding in the formation of polar achiral and nonpolar chiral vanadium selenite frameworks*, Inorg. Chem., 20, *11040-11048*, **2012**.

67. Oh, S.-J., Shin, Y., Tran, T.T., Lee, D.W., Yoon, A., Halasyamani, P.S., and Ok, K. M., *Structure-Property Relationships in Solid Solutions of Noncentrosymmetric Aurivillius Phases, $Bi_{4-x}La_xTi_3O_{12}$ (x = 0-0.75),* Inorg. Chem., 51*, 10402–10407,* **2012**.

68. Halasyamani, P.S., Preface to Special Issue - *Polar Inorganic Materials: Opportunities and Challenges*, J. Solid State Chem., 195, *1*, **2012**.

69. Nguyen, S.D. and Halasyamani, P.S., *Synthesis, Structures, and Characterization of New Noncentrosymmetric and Polar $Li_6(Mo_2O_5)_3(SeO_3)$ and Centrosymmetric $Li_2(MO_3)(TeO_3)$ (M = Mo^{6+} or W^{6+})*, Inorg. Chem., 51, *9529–9538*, **2012**.

70. Zhang, W. and Halasyamani, P.S., *Top-seeded solution crystal growth of Noncentrosymmetric and Polar $K_3V_5O_{14}$*, CrystEngComm., 14, *6839 - 6842*, **2012**.

71. Liang, K.-C., Zhang, W., Lorenz, B., Sun, Y.Y., Halasyamani, P.S., and Chu, C.W., *Weak ferromagnetism and internal magnetoelectric effect in multiferroic $LiFeP_2O_7$*, Phys. Rev. B., 86, *094414-1 – 094414-7*, **2012**.

72. Dolgos, M., Adem, U., Manjob-Sanz, A., Wan, X., Comyn, T., Stephenson, T., Bennet, J., Bell, A.J., Tran, T.T., Halasyamani, P.S., Claridge, J.B., and Rosseinsky, M.J., *Perovskite B site compositional control of [110]p polar displacement coupling in an ambient pressure stable Bi-based ferroelectric*, Angew. Chemie Int. Ed., 51, *10770-10775*, **2012**.

73. Inaguma, Y., Sakuari, D., Aimi, A., Yoshida, M., Tetsuhiro, K., Mori, D., Yeon, J., and Halasyamani, P.S., *Dielectric properties of a polar $ZnSnO_3$ with $LiNbO_3$-type structure*, J. Solid State Chem., 195, *115-119*, **2012**.

74. Yeon, J,. Kim, S.-H., Green, M.A., Bhatti, K.P., Leighton, C., and Halasyamani, P.S., *Syntheses, Crystal Structures, and Characterization of Two New Tl^{+}-Cu^{2+}-Te^{6+} Oxides: Tl_4CuTeO_6 and $Tl_6CuTe_2O_{10}$*, J. Solid State Chem., 196, *607-613*, **2012**.

75. Zhang, W. and Halasyamani, P.S. *Top-Seeded Solution Crystal Growth and Functional Properties of Polar $LiFeP_2O_7$*, Crystal Growth and Design, 12, *2127-2132*, **2012**.

76. Smith, M.D., Blau, S.M., Chang, K.B., Tran, T.T., Zeller, M., Halasyamani, P.S., Schrier, J., and Norquist, A.J., *Inducting polarity in $[VO_3]_n^{n-}$ chain compounds using asymmetric hydrogen bonding networks*, J. Solid State Chem., 195, *86-93*, **2012**.

77. Donakowski, M., Gautier, R., Yeon, J., Moore, D., Nino, J., Halasyamani, P.S., and Poeppelmeier, K. R., *The Role of Polar, Lamdba (Λ)-Shaped Building Units in Noncentrosymmetric Inorganic Structures*, J. Am. Chem. Soc., 134, *7679–7689*, **2012**.

78. Wibowo, A. C., Smith, M. D., Yeon, J., Halasyamani, P. S., and zur Loye, H.-C., *Novel 3D Bismuth-Based Coordination Polymers: Synthesis, Structure, and Second Harmonic Generating Properties,* J. Solid State Chem., 195, *94-100*, **2012**.

79. Yeon, J., Kim, S.-H., Nguyen, S.D., Lee, H., and Halasyamani, P.S., *Two New Noncentrosymmetric (NCS) Polar Oxides: Syntheses, Characterization, and Structure-Property Relationships in $BaMTe_2O_7$ ($M = Mg^{2+}$ or Zn^{2+})*, Inorg. Chem., 51, *2662-2668*, **2012**.

80. Queen, W. L., West, J. P., Hwu, S.-J., Tran, T.T., Halasyamani, P.S., and VanDerveer, D., *Symmetry preservation in a new noncentrosymmetric lattice comprised of acentric POM clusters residing in bowls of Cs^{+}-based half SOD b-cage*, Chem. Commun., 48, *1665-1667*, **2012**.

81. Kim, S. W., Kim, S.-H., Halasyamani, P. S., Green, M. A., Bhatti, K. P., Leighton, C., Das, H., and Fennie, C., *$RbFe^{2+}Fe^{3+}F_6$: Synthesis, Structure, and Characterization of New Charge-Ordered Pyrochlore-Related Magnetically Frustrated Mixed-Metal Fluoride*, Chem. Sci., 3, *741-751*, **2012**.

82. Yeon, J., Kim, S.-H., Nguyen, S., Lee, H., Halasyamani, P. S., *New Vanadium Selenites: Centrosymmetric $Ca_2(VO_2)_2(SeO_3)_3(H_2O)_2$, $Sr_2(VO_2)_2(SeO_3)_3$, and $Ba(V_2O_5)(SeO_3)$, and Noncentrosymmetric and Polar $A_4(VO_2)_2(SeO_3)_4(Se_2O_5)$ ($A = Sr^{2+}$ or Pb^{2+})*, Inorg. Chem., 51, *609-619*, **2012**.

83. Nguyen, S. D., Yeon, J., Kim, S.-H., and Halasyamani, P. S., *$BiO(IO_3)$: A New Polar Oxide Material, with a Large SHG Response, that contains Two Lone-pair Cations and Exhibits an Aurivillius-type $(Bi_2O_2)^{2+}$ Layer,* J. Am. Chem. Soc., 133, *12422-12425*, **2011**.

84. Yeon, J., Kim, S-H., Hayward, M. A., and Halasyamani, P. S., *'A' Cation Polarity Control in $ACuTe_2O_7$ ($A = Sr^{2+}$, Ba^{2+}, and Pb^{2+})*, Inorg. Chem., 50, *8663-8670*, **2011.**

85. Zhang, W., Halasyamani, P.S., Gao, Z., Wang, S., Jian, W., and Tao, X., *Anisotropic Thermal Properties of the Nonlinear Optical and Polar Oxide Material $Na_2TeW_2O_9$*, Crystal Growth and Design, 11, *3636–3641*, **2011**.

86. Zhu, T., Qin, J., and Halasyamani, P.S., *Synthesis and Structure of $A_4V_6[Te_2^{4+}Te^{6+}]O_{24}$ (A = K, Rb) – The First Two Examples of Mixed-Valent Tellurium Oxides with Vanadium (V)*, Dalton Trans., 40, *8527-8532*, **2011**.

87. Friese, K., Halasyamani, P.S., Tolkiehn, M., and Grzechnik, A., *A high pressure single-crystal synchrotron diffraction study on $NH_4RbTe_4O_9 \times 2H_2O$ – Stability of three different Te-O coordination polyhedral at high pressures*, Acta Cryst. C., C67, *i45-i49*, **2011**.

88. Halasyamani, P.S., Clarke, S.J., Mandrus, D. G., and Choi, K.-S., Eds., '*Solid State Chemistry of Inorganic Materials VIII'*, MRS Symposium Proceedings, Vol. 1309, 2010 MRS Fall Meeting, **2011**.

89. Nguyen, S.D., Kim, S.-H., and Halasyamani, P.S., *Synthesis, Characterization, and Structure-Property Relationships in Two New Polar Oxides: $Zn_2(MoO_4)(SeO_3)$ and $Zn_2(MoO_4)(TeO_3)$*, Inorg. Chem., 50, *5215–5222*, **2011**.

90. Lee, D. W., Oh, S.-J., Halasyamani, P. S., and Ok, K. M., *New Quaternary Tellurite and Selenite: Synthesis, Structure, and Characterization of Centrosymmetric $InVTe_2O_8$ and Noncentrosymmetric $InVSe_2O_8$*, Inorg. Chem., 50, *4473-4480*, **2011**.

91. Glor, E.C., Blau, S.M., Yeon, J., Zeller, M., Halasyamani, P.S., Schrier, J., and Norquist, A.J., *$[R\text{-}C_7H_{16}N_2][V_2Te_2O_{10}]$ and $[S\text{-}C_7H_{16}N_2][V_2Te_2O_{10}]$; two new polar templated vanadium tellurites*, J. Solid State Chem., 184, *1445-1450*, **2011**.

92. Yeon, J., Kim, S.-H., and Halasyamani, P.S., *Crystal Structure of a New Quinternary Oxide: $NaTl_3Cu_4Te_2O_{12}$,* J. Chem. Cryst., 41, *328-333*, **2011**.

93. Zhu, T., Chang, H.Y., and Halasyamani, P.S., *Crystal Growth and Structures of New Niobium and Tantalum Oxides: Sr_3LiNbO_6 and Sr_3LiTaO_6*, J. Chem. Cryst., 41, 1195–1197, **2011**.

94. Kim, S.-W., Chang, H.Y., and Halasyamani, P.S., *Selective Pure-Phase Synthesis of the Multi-Ferroic $BaMF_4$ (M = Mg, Mn, Co, Ni, and Zn) Family*, J. Am. Chem. Soc., 132, *17684-17685*, **2010.**

95. Kim, S.-H, Yeon, J., Sefat, A.S., Mandrus, D., and Halasyamani, P.S., *Stereo-active Lone-Pair Control on the Ferromagnetic Behavior in $VO(SeO_2OH)_2$ – A New Acentric Ferromagnetic Material*, Chem. Mater, 22, *6665–6672*, **2010**.

96. Turp, S.A., Hargreaves, J., Baek, J., Halasyamani, P.S., and Hayward, M.A., *Noncentrosymmetric Cation Order in the Cubic Perovskite $Ba_4CaFe_3O_{9.5}$,* Chem. Mater., 22, *5580-5587*, **2010**.

97. Kim, S.-H., Melot, B.C., Seshadri, R., Green, M.A., Sefat, A.S., Mandrus, D., and Halasyamani, P.S., *An Experimental and Computational Investigation of the Polar Ferrimagnet $VOSe_2O_5$*, Chem. Mater., 22, *5074-5083*, **2010**.

98. Zhang, W., Li, F., Kim, S.-H., and Halasyamani, P.S., *Top-Seeded Solution Crystal Growth and Functional Properties of $Na_2TeW_2O_9$: A Novel Polar Material*, Crystal Growth and Design, 10, *4091-4095*, **2010**.

99. Yang, T., Sun, J., Yeon, J., Halasyamani, P.S., Huang, S., Hemberger, J., and Greenblatt, M., *$Cd_{1-x}Bi_x(Cd_{1+x}In_{1-x})VO_6$ ($0 \leq x \leq 0.14$): A New Polar Structure with Second-Harmonic Generation*, Chem. Mater., 22, *4814-4820*, **2010**.

100. Grzechnik, A., Halasyamani, P.S., Kim, J.-H., and Friese, K., *Crystal structure of $(NH_4)_2WTe_2O_8$ at 5.09 GPa*, Acta Cryst., C**66**, *i79-i81*, **2010**.

101. Yeon, J., Kim, S.-H., and Halasyamani, P.S., *$A_3V_5O_{14}$ ($A = K^+$, Rb^+, or Tl^+): New Polar Oxides with a Tetragonal Tungsten Bronze Related Structural Topology – Synthesis, Structure, and Functional Properties*, Inorg. Chem., 49, *6986–6993*, **2010**.

102. Kim, M.K., Kim, S.-H., Chang, H.-Y., Halasyamani, P.S., and Ok, K. M., *New Noncentrosymmetric Tellurite Phosphate Material: Synthesis, Characterization, and Calculations of $Te_2O(PO_4)_2$*, Inorg. Chem., 49, *7028–7034*, **2010**.

103. Chang, H.Y., Kim, S.-H., and Halasyamani, P.S., *Polar Hexagonal Tungsten Oxide (HTO) Materials 1. Synthesis, Characterization, Functional Properties and Structure-Property Relationships in $A_2(MoO_3)_3(SeO_3)$ ($A = Rb^+$ and Tl^+) 2. Classification, structural distortions, and second-harmonic generating properties of known polar HTO's*, Chem. Mater., 22, *3241-3250*, **2010**.

104. Halasyamani, P.S., "Non-centrosymmetric Inorganic Oxide Materials: Synthetic Strategies and Characterization Techniques" in *Functional Oxide Materials*, eds. Bruce, D. W., O'Hare, D., and Walton, R. I., John Wiley & Sons, **2010**.

105. Choyke, S., Blau, S., Larner, A., Sarjeant, A., Yeon, J., Halasyamani, P. S., Norquist, A., *Noncentrosymmetry in new templated gallium fluorophosphates*, Inorg. Chem., 48, *11277-11282*, **2009**.

106. Kim, S.-H., Yeon, J., and Halasyamani, P.S., *A Noncentrosymmetric Polar Oxide Material, Pb_3SeO_5: Synthesis, Characterization, Electronic Structure Calculations, and Structure-Property Relationships*, Chem. Mater., 21, *5335-5342*, **2009**.

107. Yeon, J., Kim, S-H., and Halasyamani, P.S., *New Thallium Iodates - Synthesis, Characterization, and Calculations of $Tl(IO_3)_3$ and $Tl_4(IO_3)_6$, $[Tl^+_3Tl^{3+}(IO_3)_6]$*, J. Solid State Chem., 182, *3269-3274*, **2009**.

108. Claridge, J., Hughes, H., Bridges, C., Allix, M., Suchomel, M., Niu, H., Kuang, X., Rosseinsky, M., Bellido, N., Pérez O., Grebille D., Simon C., Pelloquin D., Blundell, S., Lancaster T., Baker P., Pratt F., and Halasyamani, P.S., *Frustration of magnetic and ferroelectric long-range order,* J. Am. Chem. Soc., 131, *14000-14017*, **2009**.

109. Choi, M.-H, Kim, S.-H., Chang, H.-Y., Halasyamani, P.S., and Ok, K.M., *Polar Chains with Aligned $ZnCl_4$ Tetrahedra: Hydrothermal Synthesis, Structure, Characterization, Calculations, and Non-centrosymmetric Properties of $[N(CH_3)_4]ZnCl_3$*, Inorg. Chem., 48, *8376-8382*, **2009**.

110. Leske, J.W., Moreau, M.A., McNerny, K.L., Yeon, J., Halasyamani, P.S., and Aitken, J.A., *Second Harmonic Generation and Crystal Structure of the Diamond-Like Semiconductors, Li_2CsGeS_4 and Li_2CdSnS_4*, Inorg. Chem., 48, *7516-7518*, **2009**.

111. Grzechnik, A., Halasyamani, P.S., Chang, H.Y., and Friese, K., *Twinned crystal structure and compressibility of $TlTeVO_5$,* J. Solid State Chem., 182, *1570-1574*, **2009**.

112. Chang, H.Y., Kim, S.-H., Ok, K.M., and Halasyamani, P.S*., Polar or Non-Polar? 'A' Cation Polarity Control in $A_2Ti(IO_3)_6$, A = Li, Na, K, Rb, Cs, or Tl,* J. Am. Chem. Soc., 131, *6865-6873*, **2009**.

113. Chang, H.Y, Kim, S.H., Halasyamani, P.S., and Ok, K.M., *Alignment of Lone-Pairs in a New Polar Material: $Li_2Ti(IO_3)_6$ – Synthesis, Characterization, and Functional Properties*, J. Am. Chem. Soc., 131, *2426-2427*, **2009**.

114. Chang, H.Y., Kim, S.-H., Ok, K.M., and Halasyamani, P.S*., New Polar Oxides: Synthesis, Characterization, Calculations, and Structure-Property Relationships in $RbSe_2V_3O_{12}$ and $TlSe_2V_3O_{12}$*, Chem. Mater., 21, *1654-1662*, **2009**.

115. Frau, A., Kim, J.H., and Halasyamani, P.S., *$Na_3Ga_3Te_2O_{12}$: Synthesis, Single Crystal Structure and Characterization*, Solid State Sci., 10, *1263*, **2008**.

116. Chang, H.Y., Sivakumar, T., Ok, K.M., and Halasyamani, P.S., *Polar Hexagonal Tungsten Bronze-type Oxides: $KNbW_2O_9$, $RbNbW_2O_9$, and $KTaW_2O_9$*, Inorg. Chem. 47, *8511-8517*, **2008**.

117. Halasyamani, P.S. and Poeppelmeier, K.R., *Overview of the Forum on Functional Inorganic Materials*, Inorg. Chem., 47, *8427-8428,* **2008.**

118. Kim, Y., Seo, I-s., Baek, J., Halasyamani, P. S., and Martin, S. W., *New Infrared Nonlinear Optical Crystal, $LiGaGe_2S_6$: Second-Harmonic Generation with High Laser Damage Threshold*, Chem. Mater., 20, *6048-6052,* **2008**.

119. Pan, S., Smit, J.P., Marvel, M. R., Stampler, E.S., Haag, J.M., Baek, J., Halasyamani, P.S., and Poeppelmeier, K.R., *Synthesis, crystal structure, and nonlinear optical properties of $Bi_2Cu_5B_4O_{14}$*, J. Solid State Chem., 181, *2087-2091*, **2008**.

120. Kim, J. H. and Halasyamani, P.S., *A Rare Multi-Coordinate Tellurite, $NH_4ATe_4O_9$. $2H_2O$ (A = Rb or Cs): The Occurrence of TeO_3, TeO_4, and TeO_5 Polyhedra in the Same Material*, J. Solid State Chem., 181, *2108-2112*, **2008**.

121. Baek, J., Sefat, A., Mandrus, D., and Halasyamani, P.S., *A New Magnetically Ordered Polymorph of $CuMoO_4$: Synthesis and Characterization of e-$CuMoO_4$*, Chem. Mater., 20, *3785*, **2008**.

122. Yeon, J., Halasyamani, P.S., and Kityk, I.V., *Second-order non-linear optical effects in nano-sized $Sr_6Ti_2Nb_8O_{30}$ and $Sr_6Ti_2Ta_8O_{30}$ ferroelectrics*, Mater. Lett., *1082*, **2008**.

123. Kim, J.-H., Baek, J., and Halasyamani, P.S., *$(NH_4)_2Te_2WO_8$: A New Polar Oxide with Second-Harmonic Generating, Ferroelectric and Pyroelectric Properties*, Chem. Mater., 19, *5637*, **2007**.

124. Marvel, M. R., Lesage, J., Baek, J., Halasyamani, P. S., Stern, C. L., and Poeppelmeier, K. R., *Cation-Anion Interactions and Polar Structures in the Solid State*, J. Am. Chem. Soc., 129, *13963*, **2007**.

125. Sivakumar, T., Chang, H.Y., Baek, J., and Halasyamani, P.S., *Two New Non-Centrosymmetric Polar Oxides: Synthesis, Characterization, Second-Harmonic Generating, and Pyroelectric Measurements on $TlSeVO_5$ and $TlTeVO_5$*, Chem. Mater., 19, *4710*, **2007**.

126. Chang, H. Y., Ok. K. M., Kim, J. H., Stoltzfus, M., Woodward, P., and Halasyamani, P.S., *Synthesis, Structure, Characterization, and Calculations of Two New Sn^{2+}-W^{6+}-oxides, Sn_2WO_5 and Sn_3WO_6*, Inorg. Chem., 46, *7005*, **2007**.

127. Sivakumar, T., Chang, H.Y., and Halasyamani, P.S., *Synthesis, structure, and characterization of a new two-dimensional lead(II) vanadate, $Ba_3PbV_4O_{14}$*, Solid State Sci., 9, *370*, **2007**.

128. Henderson, N. L., Baek, J., Halasyamani, P.S., and Schaak, R.E., *Ambient-Pressure Synthesis of SHG-Active $Eu_2Ti_2O_7$ with a [110] Layered Perovskite Structure: Suppressing Pyrochlore Formation by Oxidation of Perovskite-Type $EuTiO_3$,* Chem. Mater., 19, *1883*, **2007**.

129. Sambrook, T., Smura, C. F., Clarke, S. J., Ok, K. M., and Halasyamani P.S. *Structure and physical properties of the oxysulfide CaZnOS*, Inorg. Chem., 46, *2571*, **2007**.

130. Ok, K.M., Baek, J., Halasyamani, P.S., and O'Hare, D., *New Layered Uranium Phosphate Fluorides: Syntheses, Structures, Characterizations, and Ion-Exchange Properties of $A(UO_2)F(HPO_4) \cdot xH_2O$ ($A = Cs^+, Rb^+, K^+$; $x = 0 – 1$)*, Inorg. Chem., 45, *10207*, **2006**.

131. Veltman, T.R., Stover, A.K. Sarjeant, A.N., Ok, K.M., Halasyamani, P.S., and Norquist, A.J. *Directed Synthesis of Noncentrosymmetric Molybdates Using Composition Space Analysis,* Inorg. Chem., 45, *5529*, **2006**.

132. Ok, K.M., Chi, E.O., and Halasyamani, P.S. *Bulk Characterization Methods for Noncentrosymmetric Materials: Second-Harmonic Generation, Piezoelectricity, Pyroelectricity, and Ferroelectricity*, Chem. Soc. Rev., 35, *710-717*, **2006**.

133. Casanova, D., Llunell, M., Alemany, P., Alvarez, S., Ok, K.M., and Halasyamani, P.S. *Distortions in Octahedrally Coordinated d^0 Transition Metal Oxides – A Continuous Symmetry Measures Approach*, Chem. Mater., 18, *3176-3183*, **2006**.

134. Ok, K.M. and Halasyamani, P.S. *Synthesis, structure, and characterization of a new one-dimensional tellurite phosphate, $Ba_2TeO(PO_4)_2$*, J. Solid State Chem., 179, *1345-1350*, **2006**.

135. Sivakumar, T., Ok, K.M., and Halasyamani, P.S. *Synthesis, Structure, and Characterization of Novel Two- and Three-Dimensional Vanadates: $Ba_{2.5}(VO_2)_3(SeO_3)_4 \cdot H_2O$ and $La(VO_2)_3(TeO_6) \cdot 3H_2O$*, Inorg. Chem., 45, *3602-3605*, **2006**.

136. Chi, E., Ok, K.M., Porter, Y., and Halasyamani, P.S. *$Na_2Te_3Mo_3O_{16}$: A New Molybdenum Tellurite with Second-Harmonic Generating and Pyroelectric Properties,* Chem. Mater., 18, *2070-2074*, **2006**.

137. Ok, K.M. and Halasyamani, P.S., *New Metal Iodates: Syntheses, Structures, and Characterizations of Noncentrosymmetric $La(IO_3)_3$ and $NaYI_4O_{12}$ and Centrosymmetric β-$Cs_2I_4O_{11}$ and $Rb_2I_6O_{15}(OH)_2 \cdot H_2O$*, Inorg. Chem., 44, *9353*, **2005**.

138. Kim, Y., Martin, S.W., Ok, K.M., and Halasyamani, P.S., *Synthesis of the Thioborate Crystal $Zn_xBa_2B_2S_{5+x}$ ($x \sim 0.2$) for Second Order Nonlinear Applications*, Chem. Mater., 17, *2046*, **2005**.

139. Muller, E.A., Cannon, R.J., Sarjeant, A.N., Ok, K.M., Halasyamani, P.S., and Norquist, A.J., *Directed Synthesis of Noncentrosymmetric Molybdates*, Cryst. Growth and Design, 5, *1913*, **2005**.

140. Ok, K.M. and Halasyamani, P.S., *New Mixed-Metal Tellurites: Synthesis, Structure, and Characterization of $Na_{1.4}Nb_3Te_{4.9}O_{18}$ and $NaNb_3Te_4O_{16}$,* Inorg. Chem., 44, *3919*, **2005**.

141. Ok, K.M and Halasyamani, P.S., *New d^0 Transition Metal Iodates: Synthesis, Structure, and Characterization of $BaTi(IO_3)_6$, $LaTiO(IO_3)_5$, $Ba_2VO_2(IO_3)_4 \cdot (IO_3)$, $K_2MoO_2(IO_3)_3$, and $BaMoO_2(IO_3)_4 \cdot H_2O$*, Inorg. Chem., 44, *2263*, **2005**.

142. Chi, E.O., Gandini, A., Ok, K.M., Zhang, L. and Halasyamani, P.S., *Syntheses, Structures, Second-Harmonic Generating, and Ferroelectric Properties of Tungsten Bronzes: $A_6M_2M'_8O_{30}$ ($A = Sr^{2+}$, Ba^{2+}, or Pb^{2+}; $M = Ti^{4+}$, Zr^{4+}, or Hf^{4+}; $M' = Nb^{5+}$ or Ta^{5+})*, Chem. Mater., 16, *3616*, **2004**.

143. Ok, K. M. and Halasyamani, P. S., *A Lone-Pair Cation, I^{5+}, in a Hexagonal Tungsten Oxide-like Framework: Synthesis, Structure, and Second-Harmonic Generating Properties of $Cs_2I_4O_{11}$,* Angew. Chemie., 43, *5489*, **2004**.

144. Halasyamani, P. S., *Asymmetric Cation Coordination in Oxide Materials: The Influence of Lone-Pair Cations on the Intra-Octahedral Distortion in d^0 Transition Metals*, Chem. Mater., 16, *3586*, **2004**.

145. Ok, K. M. and Halasyamani, P. S., *Asymmetric Cationic Coordination Environments in New Oxide Materials: Synthesis and Characterization of $Pb_4Te_6M_{10}O_{41}$ ($M = Nb^{5+}$ or Ta^{5+}),* Inorg. Chem., 43, *4248*, **2004**.

146. Yu, R., Ok, K. M., and Halasyamani, P.S., *Synthesis and Characterization of Two Novel Mixed Metal Tellurates: $KGaTeO_5$. H_2O and $K_3GaTe_2O_8(OH)_2$. H_2O*, J. Chem. Soc., Dalton Trans., 392, **2004**.

147. Ok, K.M., Orzechowski, J., and Halasyamani, P.S., *Synthesis, Structure, and Characterization of Two New Layered Mixed-Metal Phosphates, $BaTeMO_4(PO_4)$ ($M = Nb^{5+}$ or Ta^{5+})*, Inorg. Chem., 43, *964*, **2004**.

148. Ok, K.M., Gittens, A., Zhang, L., and Halasyamani, P.S., *Synthesis, characterization, and dielectric properties of two new antimony oxides – $LaSb_3O_9$ and $LaSb_5O_{12}$: Formation of $LaSb_5O_{12}$ from the reaction of $LaSb_3O_9$ with Sb_2O_3,* J. Mater. Chem., 14, *116*, **2004**.

149. Hart, R.T., Ok, K.M., Halasyamani, P.S., and Zwanziger, J.W., *Powder Second-Harmonic Generation Study of $(K_2O)_{15}(Nb_2O_5)_{15}(TeO_2)_{70}$ Glass Ceramic*, Appl. Phys. Lett., 85, *938*, **2004**.

150. Ok, K.M., Zhang, L., and Halasyamani, P.S., *Synthesis, Characterization and Dielectric Properties of New Uni-Dimensional Quaternary Tellurites: $LaTeNbO_6$, $La_4Te_6Ta_2O_{23}$, and $La_4Te_6Nb_2O_{23}$*, J. Solid State Chem., 175, *264*, **2003**.

151. Goodey, J., Ok, K.M., Hofmann, C., Broussard, J., Escobedo, F.V., and Halasyamani, P.S. *Syntheses, Structures, and Second-Harmonic Generating Properties in New Quaternary Tellurites: $A_2TeW_3O_{12}$ (A = K, Rb, or Cs)*, J. Solid State Chem., 175, *3*, **2003**.

152. Porter, Y. and Halasyamani, P.S., *New Alkali-Metal – Selenium(IV) – Molybdenum(VI) – Oxides; Syntheses, Structures and Characterization of A_2SeMoO_6 ($A = Na^+$, K^+ or Rb^+),* J. Solid State Chem., 174, *441*, **2003**.

153. Ra, H.-S., Ok, K.M. and Halasyamani, P.S., *Combining Second-Order Jahn-Teller Distorted Cations to Create Highly Efficient SHG Materials: Synthesis, Characterization and NLO Properties of $BaTeM_2O_9$ ($M = Mo^{6+}$ or W^{6+}),* J. Am. Chem. Soc., 125, *7764*, **2003**.

154. Porter, Y. and Halasyamani, P.S. *Synthesis, Structure, and Characterization of Two New Lead(II) – Tellurium(IV) – Oxyhalides: $Pb_3Te_2O_6X_2$ and $Pb_3TeO_4X_2$ (X = Cl or Br)*, Inorg. Chem., 42, *205*, **2003**.

155. Shehee, T.C., Sykora, R.E., Ok, K.M., Halasyamani, P.S., and Albrecht-Schmitt, T., *Hydrothermal Preparation, Structures, and NLO Properties of the Rare Earth Molybdenyl Iodates, $REMoO_2(IO_3)_4(OH)$ (RE = Nd, Sm, Eu)*, Inorg. Chem., 42, *457*, **2003**.

156. Ok, K.M. and Halasyamani, P.S., *Anionic Templating: Synthesis, Structure, and Characterization of Novel Three-Dimensional Oxyhalides: $Te_4M_3O_{15}$. Cl ($M = Nb^{5+}$ or Ta^{5+})*, Inorg. Chem., 41, *3805*, **2002**.

157. Goodey, J., Broussard, J. and Halasyamani, P.S., *Synthesis, Structure and Characterization of a New Second-Harmonic-Generating Tellurite: $Na_2TeW_2O_9$*, Chem. Mater., 14, *3174*, **2002**.

158. Ok, K.M. and Halasyamani, P.S., *Synthesis, Structures, and Characterization of Centrosymmetric $Al_2(Se_2O_5)_3$ and $Ga_2(Se_2O_5)_3$ and Non-Centrosymmetric $In_2(Se_2O_5)_3$*, Chem. Mater., 14, *2360*, **2002**.

159. Ok, K.M. and Halasyamani, P.S., *Synthesis and Characterization of a New Tellurate: $NaBiTeO_5$*, Solid State Sciences, 4, *793*, **2002**.

160. Porter, Y. and Halasyamani, P.S., *Synthesis and Characterization of Nadorite: $PbSbO_2Cl$*, Z. Naturforsch. B, 57b, *360*, **2002**.

161. Sykora, R.E., Ok, K.M., Halasyamani, P.S., Runde, W., and Albrecht-Schmitt, T.E., *Structural Modulation of Molybdenyl Iodate Architectures by Alkali Metal Cations in $AMoO_3(IO_3)$ (A = K, Rb, Cs): A Facile Route to New Polar Materials with Large SHG Responses*, J. Am Chem. Soc., 124, *1951*, **2002**.

162. Poduska, K.M., Cario, L.J., DiSalvo, F.J., Ok, K.M., and Halasyamani, P.S., *Structural studies of a cubic, high-temperature a-polymorph of Pb_2GeS_4 and the iso-structural $Pb_{2-x}Sn_xGeS_{4-y}Se_y$ solid solution*, J. Alloys Comp., 335, *105*, **2002**.

163. Poduska, K.M., DiSalvo, F.J., Ok, K.M., and Halasyamani, P.S., *Structure determination of La_3CuGeS_7 and $La_3CuGeSe_7$*, J. Alloys Comp., 335, *L5*, **2002**.

164. Sykora, R.E., Ok, K.M., Halasyamani, P.S., Wells, D.M., and Albrecht-Schmitt, T.E., *New One-Dimensional Vanadyl Iodates: Hydrothermal Preparation, Structures, and NLO Properties of $A[VO_2(IO_3)_2]$ ($A = K^+, Rb^+$) and $A[(VO)_2(IO_3)_3O_2]$ ($A = NH_4^+, Rb^+, Cs^+$),* Chem. Mater., 14, *2741*, **2002**.

165. Maggard, P.A., Kopf, A.L., Stern, C.L., Poeppelmeier, K.R., Ok, K.M., and Halasyamani, P.S., *From Linear Inorganic Chains to Helices: Chirality in the $M(pyz)(H_2O)_2MoO_2F_4$ (M = Zn, Cd) Compounds*, Inorg. Chem., 41, *4852*, **2002**.

166. Ok, K.M. and Halasyamani, P.S., *New Tellurites: Syntheses, Structures, and Characterization of $K_2Te_4O_9$. 3.2 H_2O, $KGaTe_6O_{14}$, and $KGaTe_2O_6$. 1.8 H_2O*, Chem. Mater., 13, *4278*, **2001**.

167. Ok, K.M., Bhuvanesh, N.S.P., and Halasyamani, P.S., *$SbSb_xM_{1-x}O_4$ ($M = Nb^V$ or Ta^V): Solid Solution Behavior and Second-Harmonic Generating Properties*, J. Solid State Chem., 161, *57*, **2001**.

168. Porter Y. and Halasyamani, P.S., *A Low Temperature Method for the Synthesis of New Mixed Metal Oxychlorides: $Pb_3(SeO_3)(SeO_2OH)Cl_3$ and $Pb_3(SeO_3)_2Cl_2$,* Inorg. Chem., 40, *2640*, **2001**.

169. Porter, Y., Ok, K.M., Bhuvanesh, N.S.P., Halasyamani, P.S., *Synthesis and Characterization of Te_2SeO_7 - A Powder SHG study of TeO_2, Te_2SeO_7, Te_2O_5, and $TeSeO_4$,* Chem. Mater., 13, *1910*, **2001**.

170. Ok, K.M., Bhuvanesh, N.S.P., and Halasyamani, P.S. *Bi_2TeO_5: Synthesis, Structure, and Powder SHG Properties,* Inorg. Chem., 40, *1978*, **2001**.

171. Bhuvanesh, N.S.P. and Halasyamani, P.S., *Synthesis and Characterization of $NaGaTe_2O_6$. 2.4 H_2O – An Open-Framework Tellurite related to Zemannite,* Inorg. Chem., 40, *1404*, **2001**.

172. Porter, Y., Bhuvanesh, N.S.P., and Halasyamani, P.S., *Synthesis and Characterization of Non-centrosymmetric $TeSeO_4$*, Inorg. Chem., 40, *1172*, **2001**.

173. Allen, S., Barlow, S., Halasyamani, P.S., Mosselmans, J.F.W., O'Hare, D., Walker, S.M., and Walton, R.I., *The hydrothermal synthesis of $(C_6N_2H_{14})_2(U^{VI}{}_2U^{IV}O_4F_{12})$, a mixed-valent one-dimensional uranium oxyfluoride*, Inorg. Chem., 39*, 3791,* **2000**.

174. Walker, S. M., Halasyamani, P.S., Allen, S., and O'Hare, D., *From Molecules to Frameworks: Variable Dimensionality in the $UO_2(CH_3COO)_2.2H_2O$ / $HF_{(aq)}$ / Piperazine System – Syntheses, Structures, and Characterization of Zero-dimensional $(C_4N_2H_{12})UO_2F_4$. $3H_2O$ (UFO-8a and 8b), One-dimensional $(C_4N_2H_{12})_2U_2F_{12}$. H_2O (UFO-9), Two-dimensional $(C_4N_2H_{12})_2(U_2O_4F_5)_4$. $11H_2O$ (UFO-10), and Three-dimensional $(C_4N_2H_{12})U_2O_4F_6$ (MUF-1)*, J. Am. Chem. Soc., 121, *10513*, **1999**.

175. Halasyamani, P.S., Walker, S.M., and O'Hare, D., *The First Open Framework Actinide Material $(C_4N_2H_{12})U_2O_4F_6$ (MUF-1)*, J. Am. Chem. Soc., 121, *7415*, **1999**.

176. Walton, R.I., Francis, R.J., Halasyamani, P.S., O'Hare, D., Smith, R.I., and Done, R., *A Novel Apparatus for the In-Situ Study of Hydrothermal Crystallizations using Time-Resolved Neutron Diffraction*, Rev. Sci. Instrum., 70, *3391*, **1999**.

177. Francis, R.J., Halasyamani, P.S., Bee, J.S., and O'Hare, D., *Variable Dimensionality in the Uranium Fluoride / 2-Methyl-Piperazine System: Syntheses and Structures of UFO-5, 6, and 7; Zero, One, and Two Dimensional Materials with Unprecedented Topologies*, J. Am. Chem. Soc., 121, *1609*, **1999**.

178. Francis, R.J., O'Brien, S., Fogg, A.M., Halasyamani, P.S., O'Hare, D., Loiseau, T., and Ferey, G., *Time-Resolved In-Situ Energy and Angular Dispersive X-ray Diffraction Studies of the Formation of the Microporous Gallophosphate ULM-5 under Hydrothermal Conditions*, J. Am. Chem. Soc., 121, *1002*, **1999**.

179. Halasyamani, P.S., Francis, R.J., Walker, S.M. and O'Hare, D*., New Layered Uranium(VI) Molybdates: Syntheses and Structures of $(NH_3(CH_2)_3NH_3)(H_3O)_2(UO_2)_3(MoO_4)_5$, $C(NH_2)_3(UO_2)(OH)(MoO_4)$, $(C_4H_{12}N_2)(UO_2)(MoO_4)_2$, and $(C_5H_{14}N_2)(UO_2)(MoO_4)_2$. H_2O*, Inorg. Chem., 38, *271*, **1999**.

180. Francis, R.J., Halasyamani, P.S., and O'Hare, D., *Novel Uranium(IV) Fluorides: Synthesis, Structures and Physical Properties of $(H_3N(CH_2)_3NH_3)U_2F_{10}$. $2H_2O$, $(H_3N(CH_2)_4NH_3)U_2F_{10}$. $3H_2O$, $(H_3N(CH_2)_6NH_3)U_2F_{10}$. $2H_2O$, and $[HN(CH_2CH_2NH_3)_3]U_5F_{24}$*, Chem. Mater., 10, *3131*, **1998**.

181. Francis, R.J., Halasyamani, P.S., and O'Hare, D., *Organically Templated Uranium(IV) Fluorides: Syntheses, Structures, and Properties of $(H_3N(CH_2)_3NH_3)U_2F_{10}$. $2H_2O$,*

$(H_3N(CH_2)_4NH_3)U_2F_{10}$. $3H_2O$, $(H_3N(CH_2)_6NH_3)U_2F_{10}$. $2H_2O$, Angew. Chem. Int. Ed. Engl., 37, *2214*, **1998**.

182. O'Hare, D., Evans, J.S.O., Francis, R.J., Halasyamani, P.S., Norby, P., and Hanson, J., *Time-resolved, in situ X-ray diffraction studies of the hydrothermal synthesis of microporous materials*, Micro. Meso. Mater., 21, *253*, **1998**.

183. Halasyamani, P.S. and O'Hare, D., *Synthesis and Characterization of $Se_4Nb_2O_{13}$: A New Ternary Se^{4+} - Nb^{5+} - Oxide with Monoselenite and Diselenite Groups*, Chem. Mater., 10, *646,* **1998**.

184. Francis, R.J., Drewitt, M.J., Halasyamani, P.S., Ranganthachar, C., O'Hare, D., Teat, S.J., and Clegg, W., *Organically Templated Layered U(VI) Phosphates: Hydrothermal Syntheses and Structures of $[HN(CH_2CH_3)_3][(UO_2)_2(PO_4)(HPO_4)]$ and $[N(CH_2CH_2CH_3)_4][(UO_2)_2(PO_4)(HPO_4)_2]$*, Chem. Commun., 2, *279*, **1998**.

185. Halasyamani, P.S. and O' Hare, D., *A New Three-Dimensional Vanadium Selenite, $(VO)_2(SeO_3)_3$, with Isolated and Edge-Shared VO_6 Octahedra*, Inorg. Chem., 36, *6409*, **1997**.

186. Halasyamani, P.S., Drewitt, M.J., and O'Hare, D., *Hydro(solvo)thermal synthesis and structure of a three-dimensional Zinc fluorophosphate: $Zn_2(4,4'$-bipy$)(PO_3F)_2$*, Chem. Commun., 9, *867*, **1997**.

187. Norquist, A.J., Heier, K.R., Halasyamani, P.S., Stern, C.L., and Poeppelmeier, K.R., *Polar Compounds Containing the Acentric $[Cr_2O_7]^{2-}$ Anion*, Inorg. Chem., 40, *2014*, **2001**.

188. Heier, K.R., Norquist, A.J., Halasyamani, P.S., Stern, C.L., and Poeppelmeier, K.R., *The Polar $[WO_2F_4]^{2-}$ Anion in the Solid State*, Inorg. Chem., 34, *762*, **1999**.

189. Halasyamani, P.S., and Poeppelmeier, K.R., *Non-centrosymmetric Oxides*, Chem. Mater., 10, *2753*, **1998**.

190. Halasyamani, P.S., Heier, K.R., Norquist, A.J., Stern, C.L., and Poeppelmeier, K.R., *Composition Space of the $(CdO, 1/2Nb_2O_5)$ / $(HF)_x$ pyridine / H_2O System. Structure and Synthesis of $CdNb(py)_4OF_5$*, Inorg. Chem., 37, *369*, **1998**.

191. Halasyamani, P.S., Heier, K.R., Stern, C.L., and Poeppelmeier, K.R., *Syntheses and Structures of $CuW(py)_2(H_2O)_2O_2F_4$ and $CuW(py)_4O_2F_4$*, Acta Cryst., C53, *1240*, **1997**.

192. Halasyamani, P.S., Willis, M.J., Heier, K.R., Stern, C.L. and Poeppelmeier, K.R., *Synthesis and Structure of $[pyH^+]_2[CdNb_2(py)_4O_2F_{10}]^{2-}$,* Acta Cryst., C52, *2491*, **1996**.

193. Halasyamani, P.S., Heier, K.R., Willis, M.J., Stern, C.L., and Poeppelmeier, K.R., *Synthesis and Structures of Two New Cu / Nb / Pyrazine Complexes: Three Dimensional $CuNb(pyz)_2OF_5 \cdot (pyz)(H_2O)$ and Two Dimensional $[Cu(pyz)_{2.5}]^+[NbF_6]^- \cdot pyz$*, Z. Anorg. Allg. Chemie, 622, *479*, **1996**.

194. Halasyamani, P.S., Willis, M.J., Lundquist, P.M., Stern, C.L., Wong, G.K., and Poeppelmeier, K.R., *Composition Space of the $(CuO, 1/2(Nb_2O_5)$ / $(HF)_x \cdot$ pyridine / $H_2O)$*

System. Structure and Synthesis of $CuNb(py)_4OF_5$ *and* $[pyH^+]_2[CuNb_2(py)_4O_2F_{10}]^{2-}$, Inorg. Chem., 35, *1367*, **1996**.

195. Halasyamani, P.S., Willis, M.J., Stern, C.L., and Poeppelmeier, K.R., *Crystal Growth in Aqueous Hydrofluoric Acid and* $(HF)_x$ · *pyridine Solutions: Synthesis and Crystal Structures of* $[Ni(H_2O)_6]^{2+}$ $[MF_6]^{2-}$ *(M = Ti, Zr, or Hf) and* $Ni_3(py)_{12}F_6$. $7H_2O$, Inorg. Chem. Acta, 240, *109*, **1995**.

Invited Presentations:

Universities

United States:

Indiana University	Duquesne University	Clemson University
Auburn University	Georgia Inst. Tech.	University of South Carolina
North Carolina State Univ.	Ohio State University	Notre Dame University
University of Michigan	Michigan State Univ.	University of New Orleans
Northwestern University	Purdue University	Cornell University
Columbia University	UC – Santa Barbara	University of Minnesota
Haverford College	Oak Ridge National Lab.	University of Iowa
University of Oregon	California Inst. Tech.	New York University
University of Delaware	Baylor University	Colorado School of Mines
Colorado State Univ.	Johns Hopkins University	University of Florida
Florida State Univ.	SUNY - Stony Brook	

International:

University of Sofia	University of Barcelona	University of Nantes
University of Bordeaux	Augsburg University	Indian Institute of Science
University of Chile, Santiago	University of Edinburgh	University of St. Andrews
University of Tubingen	MPI – Stuttgart	University of Stuttgart
Ho Chi Minh University	Stockholm University	Peking University
USTC Beijing	Xinjiang Technical Institute of Physics and Chemistry	
Nanjing University	Fujian Institute of Research on the Structure of Matter	
Wuhan University	Shandong University	University of Buenos Aires
Aalto University	ETH Zurich	University of Berne
IST Austria	CSIR - Hyderabad	TFIR - Hyderabad

Symposium Organizer:

International Union of Crystallography (Florence, Italy, 2005)
Southwest Regional ACS Meeting (Houston, 2006)
National Materials Research Society Meeting (Boston, 2010)
International Materials Research Congress (Cancun, 2012)
International Materials Research Congress (Cancun, 2013)
Solid State Gordon Conference - Vice-Chair (Colby-Sawyer, NH, 2018)
Solid State Gordon Conference - Chair (Colby-Sawyer, NH, 2020)

Collaborators:

Prof. Jon Spanier (Drexel University)
Prof. Alexander Norquist (Haverford College)
Prof. Patrick Woodward (Ohio State Univ.)
Prof. Chris Leighton (University of Minnesota)
Prof. Hanno zur Loye (Univ. South Carolina)
Prof. Barbara Reisner (James Madison Univ.)
Prof. Peter Khalifah (SUNY – Stonybrook)
Prof. Kenneth R. Poeppelmeier (Northwestern Univ.)
Prof. Shiou-Jyh Hwu (Clemson University)
Prof. Jennifer Aitken (Duquesne University)
Prof. Ram Seshadri (UC – Santa Barbara)
Prof. Mike Marvel (Aurora University)
Prof. Catherine Oertel (Oberlin College)
Prof. Martha Greenblatt (Rutgers Univ.)
Prof. Steve Martin (Iowa State Univ.)
Prof. Dan Reger (Univ. South Carolina)

Prof. Simon Clarke (University of Oxford)
Prof. Santiago Alvarez (Univ. of Barcelona)
Prof. Martin Jansen (MPI – Stuttgart)
Prof. Pantelis Trikalitis (University of Crete)
Prof. Xutang Tao (Shandong University)
Prof. Zhengtao Xu (City Univ. of Hong Kong)
Prof. Artem Babaryk (University of Kyiv)
Prof. Oliver Mentre (University Lille)
Prof. Mark Green (Univ. Kent)
Prof. Emma McCabe (Univ. Kent)
Prof. Michael Hayward (University of Oxford)
Prof. Matthew Rosseinsky (Univ. Liverpool)
Prof. Phil Lightfoot (University of St. Andrews)
Prof. Yoshiyuki Inaguma (Gakushuin University)
Prof. Jinqui Qin (Wuhan University)
Prof. Ivana Evans (Durham University)
Prof. Alexei Belik (NIMS, Japan)
Dr. Gwilherm Nenert (PANalytical)
Prof. Mats Johnsson (Univ. Stockholm)
Prof. Shilie Pan (Xinjiang Institute)

Students and Post-doctoral Associates:

Post-doctoral Associates and Visiting Scholars (Current): Dr. Weiguo Zhang, Dr. Yanjun Li, Dr. Tongqing Sun, *Dr. Lili Lu

*Graduate Students (Current):*Meng Shang

Post-doctoral Associates (Previous) – Current position:
Dr. N.S.P. Bhuvanesh (9/99 – 8/01) – *Research Instrument Specialist, Texas A&M*
Dr. Zhong-le Huang (4/01 – 4/02) – *Research Scientist, Institut für Anorganische Chemie Christian-Albrechts-Universität zu Kiel*
*Dr. Joanna Goodey (9/01 – 7/02) - *Senior Lecturer and Associate Graduate Advisor, Texas A&M*
Dr. Lei Zhang (6/02 – 5/04) – *Research Scientist, State Key Laboratory of Rare Earth Materials Chemistry and Applications, Peking University, Beijing*
*Dr. Oya Gokcen (1/03 – 1/04) – *Research Scientist, Space Vacuum Epitaxy Center, Univ. Houston*
*Dr. Ranbo Yu (2/03 – 2/04) – *Associate Professor, University of Science and Technology, Beijing*
*Dr. Eunok Chi (4/03 – 3/06) - *DC Chemical Company, Seoul, Korea*
Dr. Kang Min Ok (1/04 – 3/06) - *Professor Chung-Ang University, Korea*
Dr. T. Sivakumar (8/04 – 3/07) – *Post-doctoral Associate, Tokyo Institute of Technology*
Dr. Jun Ho Kim (6/06 – 6/08) – *DC Chemical Company, Seoul, Korea*
Dr. Sang-Hwan Kim (4/08 – 6/11) – *Research Scientist DuPont Company*

*Dr. Elise Pachoud (1/12 - 6/13) - *Post-doctoral Associate, Edinburgh University*
Dr. Hongwei Yu (9/14 - 2/16) - *Professor, Xinjiang Inst. of Physics and Chemistry, CAS*
*Dr. Hongping Wu (1/15-1/16) - *Professor, Xinjiang Inst. of Physics and Chemistry, CAS*

Graduate Students (Previous) – Current position:
Kang Min Ok (Ph.D. Dec. '03 - *Professor Chung-Ang University, Korea*)
*Yetta Porter (Ph.D. Dec. '03 - *Research Scientist, Lawrence Berkeley National Laboratory*)
Hong-Young Chang (Ph.D. Aug., '09 - *Post-doctoral Assoc. UT-Austin*)
Jaewook Baek (M.S. Aug., '09 - *Chief Chemist ExperTox Inc., Houston, TX*)
Jeongho Yeon (Ph.D. Aug., '11 - *Research Scientist - Crystal Growth Group, Coherent Lasers*)
Sau Doan Nguyen (Ph.D. Dec., '12 – *Post-doctoral Assoc., Univ. Northern Colorado*)
*HaNa Lee (M.S. May '13 - *LG Chemicals, Korea*)
Sun Woo Kim (Ph.D. August '14 - *Assistant Professor, Chosun University, Korea)*
Thanh Thao Tran (Ph.D. June '15 - *Post-doctoral Assoc., Johns Hopkins University*)

Undergraduate Students: 20 Total, 12 from Under-represented Groups;
*Lisa Ramadghie (6/00 – 8/00), Axel Mueller (1/01 – 4/01), *Claudia Wagner (4/01 – 7/01), *Cinttya Chavez (5/01 – 7/01), *Francisco Escobedo (5/02 – 7/02), Jake Broussard (9/01 – 5/02), *Alex Gittens (5/02 – 12/02), Hyun-Seup Ra (1/03 – 4/03), *Jolea Bryant (5/03 – 7/03), Joseph Orzechowski (6/03 – 7/03), *Maria Guardiola (5/04 – 7/04), *Alexandra Fursina (2/05 – 8/05), *Pascaline Lauriol (1/06 – 7/06), *Angelica Torres (5/06 – 8/06), *Mary Elhardt (5/06 – 8/06), Brian Berger (5/06 – 8/06), Casey Hood (1/08 – 1/09), *Antonio Pontifes (5/09 – 12/09), Stephan Tam (5/10 – 12/11); Thong Tran (1/12 – 6/12)
*Member of an under-represented group.