

TECHNICAL TALKS/PRESENTATIONS

(1) Invited talks

47. Overview of the coated conductor and thermoelectric research at the Ceramics Division of NIST, Korean Institute of Science and Technology (KIST), Seoul, Korea, June 12, 2007.
46. Overview of the thermoelectric research at the Ceramics Division of NIST, Seoul National University, Seoul, Korea, June 11, 2007.
45. Phase equilibria in the Ba-R-Cu-O (R=Y and lanthanides) systems for Coated Conductor Applications, Materials Research Society Spring Meeting, San Francisco, CA, April 8-13, 2007.
44. Phase Evolution of High T_c Materials in Coated-Conductors, International Conference on Superconductor Materials (International Materials Week), Beijing, China, June 27, 1006.
43. Superconductivity: Powering the Future, Institute of Physics, Chinese Academy of Sciences, Beijing, China, July 3, 2006.
42. Thermoelectric Materials, ICDD annual meeting, scientific presentation, Newtown Square, PA, March 22, 1006.
41. Overview of Thermoelectric Research at Ceramics Division of NIST, presented at ORNL, Oak Ridge, TN, April 10, 2006.
40. Phase Evolution of $Ba_2YCu_3O_{6+x}$ Films during the BaF_2 Process, International Cryogenic Materials Congress (ICMC) Workshop, University of Wollongong, Wollongong, Australia, February 11, 2004.
39. Phase Relations in the Ba-Y-Cu-O-F Systems, High T_c superconductor symposium, American Ceramic Society annual meeting, Indianapolis, IN, April 19-21, 2004.
38. Superconductivity: Powering the Future, Chemistry Department, LSU, Baton Rouge, LA, October 12, 2003.
37. Experimental phase equilibria of electronic ceramic materials, Materials Science and Engineering Department, University of Wisconsin, Madison, Wisconsin, March 13, 2003.
36. Phase equilibria of high T_c superconductor systems for wire/tape applications, Applied Superconductivity Conference, Houston, TX, August 5, 2002.
35. Crystallographic studies of compounds in the alkaline-earth tantalate and niobate systems, American Crystallographic Association annual meeting, May 26, San Antonio, Texas, 2002.
34. Phase equilibria and processing of high T_c superconductors, Symposium on Experiment, Theory and Applications of Phase Equilibria in Ceramic Systems, The PAC RIM IV meeting, American Ceramic Society, Maui, Hawaii, Nov. 4-8, 2001.
33. Phase Relations in the Ba-Y-Cu-F-O-H system, Material Research Society Fall Meeting, Nov. 26-30, 2001, Boston, MA.
32. Phase equilibria of high T_c superconductors, U.S. Department of Energy Ninth Quarterly Program Performance and Results Briefing on Wire and Equipment Research, Development, and Demonstration; Department of Energy, Washington D.C., Dec. 12, 2001.
31. Phase equilibria of the Ba-Nd-Cu-O and Ba-Nd-Yb-Cu-O systems. MRS Fall meeting, Boston, MA, Nov. 27-Dec. 1, 2000.
30. Crystal chemistry and phase equilibria of Selected AO- R_2O_3 -CuO systems (A = Ba and Sr, R=Lanthanides), Physics Department, University of Geneva, Geneva, Switzerland, July 12, 2001.
29. Crystal chemistry, crystallography and phase equilibria of the BaO- Nd_2O_3 - Yb_2O_3 -CuO system, THERMEC 2000, International Conference on Processing & Manufacturing of Advanced

- Materials, Las Vegas, Dec. 4-8, 2000.
28. Phase equilibria and crystal chemistry of the BaO-(Nd, Yb)-CuO system, MRS Fall meeting, Boston, MA, Nov. 27–Dec. 1, 2000.
 27. Crystal chemistry and phase equilibria of the SrO-R₂O₃-CuO systems, International Conference on Electronic Materials & European Materials Research Society Spring Meeting, Strasbourg, France, May 30-June 2, 2000.
 26. Roles of melting equilibria in the processing of high T_c superconductors in the BSCCO system, 9th Japan-U.S. Workshop on High T_c Superconductors, Yamanashi, Japan, Oct. 13, 1999.
 25. Structural/property investigations of microwave titanate ceramics, American Ceramic Society annual meeting, Indianapolis, IN, April 25, 1999.
 24. Phase equilibria and crystal chemistry of the high T_c Bi-Pb-Sr-Ca-Cu-O system, Howard University, Chemistry Department, Washington, DC, March 19, 1999.
 23. Roles of melting equilibria in the processing of high T_c phases in the BSCCO system, The Minerals, Metals & Mater. Soc. annual meeting, San Diego, CA, March 1, 1999.
 22. Phase equilibria of the high T_c superconductors in the (Bi,Pb)-Sr-Ca-Cu-O system, The Fifth NATO Supported International Workshop, High Temperature Superconductors and Novel Inorganic Materials Engineering (MSU HTSC-V), Moscow State University, Russia, March 25, 1998.
 21. Phase equilibria of the high T_c superconductors in the (Bi,Pb)-Sr-Ca-Cu-O system, 8th U.S.-Japan Workshop, High Temperature Superconductors, National High Magnetic Field Laboratory, Tallahassee, FL., December 2, 1997.
 20. The development of a standard for single crystal diffractometer alignment and certification of ruby spheres as a standard reference material, ACA annual meeting, St. Louis, MO., July 22, 1997 (invited poster).
 19. Melt evolution in the Bi-Pb-Sr-Ca-Cu-O system, high temperature superconductor phase diagrams workshop, Santa Fe, NM, Nov. 12, 1996.
 18. Phase equilibria of the Bi-Sr-Ca-Cu-O system, Chong-Won National University, Chong-Won, Korea, Oct. 23, 1996.
 17. Phase equilibria of the Bi-Sr-Ca-Cu-O system, Korea Maritime University, Pusan, Korea, Oct. 21, 1996.
 16. Phase equilibria of the high T_c phases in the Bi-Pb-Sr-Ca-Cu-O system, Oak Ridge National Laboratory, Sept. 18, 1996.
 15. Phase equilibria of the 2212 and Pb-2223 superconductors, Santa Fe High T_c workshop, Nov. 1995.
 14. Melting Equilibria of the Ba-Y-Cu-O System, TMS Annual meetings, San Francisco, Feb. 1994.
 13. Melting Equilibria of the Ba-Y-Cu-O System, workshop on High T_c Phase Equilibria, Santa Fe, NM June 2-4, 1993.
 12. Phase equilibria and crystal chemistry of the systems A-R-Cu-O (A=Ba,Sr,Ca; R=Y and lanthanides), workshop on High T_c Phase Equilibria, Santa Fe, NM June 2-4, 1993.
 11. Molecular Orbital calculations of the water enhanced crack growth process, Chemistry Colloquium, Catholic University, Washington DC., April 12, 1991.
 10. Molecular Orbital calculations of the environmentally enhanced crack growth process, University of Missouri, Physics Dept., October, 1991.
 9. Oxidation/reduction equilibria in the Ba-Y-Cu-O system, 2nd International Congress of Science and Technology Meetings, Orlando, Florida, Nov., 1990.

8. Crystal chemistry and phase equilibria of the $\text{BaO}(\text{BaCO}_3)\text{-}\frac{1}{2}\text{Nd}_2\text{O}_3\text{-CuO}$ system. American Ceramic Society Annual meeting, Dallas, Texas, April, 1990.
7. Crystal Chemistry and Phase Equilibria of high T_c Superconductor Oxides. The American Chemical Engineering Society Annual Meeting, San Francisco, Nov. 1989.
6. X-ray crystallographic studies of thermomechanically detwinned single crystals of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$, 1989 ACA Annual Meetings, July 24, Seattle, Washington.
5. Angle calibrations using internal standards, Workshop, Denver X-ray Conference, Steamboat Springs, CO, August, 1988.
4. Structural phase transformation studies of the high T_c superconductor materials $\text{Ba}_2\text{RCu}_3\text{O}_{6+x}$ (R = Sm, Gd, Y, Er), American Crystallographic Association (ACA) meetings at Philadelphia, Pennsylvania, June, 1988.
3. X-ray powder characterization and standards, The Northern Regional Meeting of the American Ceramics Society, Cleveland, Ohio, March 1987.
2. Standard reference materials for X-ray diffraction, Denver X-Ray Conference, Denver, Colorado, August, 1986.
1. The JCPDS Database - Past, present and future, Denver X-Ray Conference, Denver, Colorado, 1982.

(b) Contributed Talks/poster presentations

1. Crystal and Molecular Structure of a Nitronylnitroxide Free radical and its Diamagnetic Analog, American Chemical Society Meeting, El Paso, Texas, 1973.
2. False Molecular Images In Direct and Heavy Atom Phase Determinations. International Union of Crystallographic Meeting at Ottawa, Canada, July, 1981.
3. The Triplet Monoclinic and Co-Crystallizing Triclinic Polymorphs of the Quasi-Racemates of (-) Pedopetaline and (-) Ormosanine, American Crystallographic Association meeting at Snow Mass, Colorado, August, 1983.
4. X-Ray Diffraction Study of the $\text{BaO-Y}_2\text{O}_3\text{-CuO}_x$ System. Denver X-ray Conference, Denver, Colorado, August, 1987.
5. Applications of Double-Crystal Diffractometry to the Understanding of Ceramic Fracture, International meeting of processing science, Orlando, Florida, Nov., 1987.
6. Structural Phase Transformation Studies of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$, American Ceramics Society Meetings, Cincinnati, Ohio, May, 1988.
7. X-ray Line Profile Studies of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$, American Ceramics Society meetings, Cincinnati, Ohio, May, 1988.
8. Structural Phase Transformation Studies of $\text{Ba}_2\text{RCu}_3\text{O}_{6+x}$, Materials Research Society meeting, Boston, Nov. 1988.
9. Residual Strain and Crystallite Size Studies of $\text{Ba}_2\text{RCu}_3\text{O}_{6+x}$, Materials Research Society Meetings, Boston, Nov. 1988.
10. Crystal Chemistry and Phase Equilibria Studies of the $\text{BaO-R}_2\text{O}_3\text{-CuO}$ Systems, 1989 Annual meeting of the American Ceramic Society Meetings, Indianapolis, Indiana, April, 1989.
11. Phase Formation in the $\text{BaO-R}_2\text{O}_3\text{-CuO}$ Systems, 1989 American Crystallographic Society Meetings, Seattle, Washington, July, 1989.
12. Crystal Chemistry and Phase Equilibria Studies of the $\text{BaO-R}_2\text{O}_3\text{-CuO}$ Systems, Denver X-ray Conference, Denver, Colorado, August, 1989.

13. Phase Formation and Crystal Chemistry in the BaO-Nd₂O₃-CuO system, Bordeaux, France, IUCr meetings, July, 1990.
14. X-ray characterization of the PZT Thin films, Bordeaux, France, IUCr meetings, July 1990.
15. Crystallographic Studies of Compounds found in the BaO(BaCO₃)-R₂O₃ System, R=Lanthanides, MRS annual meeting, Boston, Ma, Nov. 1990.
16. Molecular Orbital Study of Water Enhanced Crack Growth Process, MRS meetings, Boston, Ma, Nov. 1990.
17. Molecular Orbital Study of Water Enhanced Crack Growth Process, American Ceramic. Soc. annual meetings, Cincinnati, OH, April, 1990.
18. REDOX Melting Reactions in the Processing of Ba₂YCu₃O_{6+x} Ceramics. MRS meetings, Boston, Ma, Nov. 1990.
19. Crystal chemistry of the system BaO-R₂O₃, MRS meeting, Boston, Ma. Nov. 1990.
20. Quantitative Melting Relationships in the System BaO-Y₂O₃-Cu-O, Annual Meeting of the Amer. Ceram. Soc., Cincinnati, OH, April, 1991.
21. Characterization of the Bi-Pb-Sr-Ca-Cu Oxide Thin Films Prepared by Using the Laser Deposition Technique, Annual Meeting of the Amer. Ceram. Soc., Cincinnati, OH, April, 1991.
22. Magnetic Properties of the "Brown Phase" Solid Solutions Ba_{2+2x}R_{4-2x}Cu_{2-x}O_{10-2x}. Annual Meeting of the Amer. Ceram. Soc., Cincinnati, OH, April, 1991.
23. Quantitative Melting Relations in the BaO-R₂O₃-CuO system, NIST Superconductor Review Program, NIST, Gaithersburg, March, 1991.
24. X-ray Powder Analysis of the Melt Process in the BaO-Y₂O₃-CuO System, PIXCAM International X-ray Meeting, Aug. 1991, Big Island, Hawaii.
25. X-ray Powder Characterization of the Laser Deposited Thin Films, PIXCAM International X-ray Meeting, Hawaii, Aug. 1991
26. Phase equilibria of melting in the system BaO-Y₂O₃-Cu-O, MRS Boston meeting, 1991.
27. Single crystal structure investigation of CaBi₂O₄ by X-ray diffraction, MRS Boston meeting, 1991
28. Crystallographic aspects of ferroelectric thin films prepared by laser deposition technique, MRS meeting, Boston, Dec. 1991.
29. Microstructural effect on the corrosion of tungsten in SF₆. Conference "Accuracy in Powder Diffraction", NIST, May, 1992.
30. Melting sequence in the BaO-Y₂O₃-Cu-O system, American Ceramics Society annual meeting, Minneapolis, MN., Apr., 1992.
31. Single crystal X-ray diffraction structural studies of CaBi₂O₄ and SrBi₂O₄, American Ceramics Society annual meeting, Minneapolis, MN., Apr., 1992.
32. A comprehensive review of the coverage of X-ray diffraction patterns of the A-R-Cu-O systems (A=Ba, Sr and Ca) in the Powder Diffraction File (PDF), American Ceramics Society annual meeting, Minneapolis, MN., Apr., 1992.
33. Single crystal structural studies of BaR₂CuO₅ (R=Nd "brown phase" and R=Dy "green phase"), American Ceramics Society annual meeting, Minneapolis, MN., Apr., 1992.
34. Crystallography of the Ruddelston-Popper series Ba_{n+1}M_nS_{3n+1}, where M=Zr and Hf and n=1 to 5. American Crystallographic Association Annual meeting, Pittsburg, Aug. 11-15, 1992.
35. Melting Relations in the Ba-Y-Cu-O systems in air. American Crystallographic Association Annual meeting, Pittsburg, Aug. 11-15, 1992.
36. Structural investigation of Zn₂SiO₄ and Zn₂(Si,Cr)O₄ by single crystal X-ray diffraction techniques, Fall MRS Boston meeting, Nov. 28-Dec. 4, 1992.

37. Effect of oxygen partial pressure on melting in the system Ba-Y-Cu-O, Fall MRS Boston meeting, Nov. 28 - Dec. 4, 1992.
38. Molecular orbital study of the environmentally enhanced crack growth process in brittle materials, Fall MRS Boston meeting, Nov. 28-Dec. 4, 1992.
39. Effect of oxygen partial pressure on Melting Equilibria in the System BaO-Y₂O₃-Cu-O. Amer. Ceram. Soc. Annual Meetings, Ohio, April, 1993.
40. Crystallography and X-Ray Patterns of Compounds in the Sr-Nd-Cu-O System. Amer. Ceram. Soc. Annual Meetings, Ohio, April, 1993.
41. Investigation of the Environmental Influence on the Crack Process of Silicon by Molecular Orbital Calculations. Amer. Ceram. Soc. Annual Meetings, Ohio, April, 1993.
42. Single Crystal Structural Investigation of three Ba-Zn-Ti-O Compounds by X-Ray Diffraction. Amer. Ceram. Soc. Annual Meetings, Ohio, April, 1993.
43. Effect of oxygen Partial Pressure on Melting Equilibria in the System BaO-Y₂O₃-Cu-O, American Crystallographic Society Meetings, Albuquerque, NM, May 24-28, 1993.
44. Melting Equilibria in the system Ba-Y-Cu-O : Effect of Oxygen Partial Pressure, MRS Falls meeting, Boston, November, 1993.
45. A review of the Crystal Chemistry and Crystallography of compounds in the Ba-Cu-O System, MRS Falls meeting, Boston, November, 1993.
46. Development of Crystallinity in Amorphous BaTiO₃ Films, MRS Falls meeting, Boston, November, 1993.
47. Melting Equilibria in the Ba-Y-Cu-O System, TMS Annual meeting, San Francisco, Calif., Feb. 1994
48. Wigner-Seitz Local Environment Study of Ba₂YCu₃O_{6+x}, American Crystallographic Association Annual meeting, June, Atlanta, 1994
49. A Summary of the Melting Equilibrium Studies in the Ba-Y-Cu-O System, American Ceramics Society Annual Meeting, Indianapolis, April 1994
50. Melting Equilibrium Study of the 2212-Bi-Sr-Ca-Cu-O Superconductor, American Ceramics Society Annual Meeting, Indianapolis, April 1994
51. Structural Studies of the Ruddlesden-Popper Phases Ba_{n+1}A_nS_{3n+1}, A=Hf and Zr, American Ceramics Society Annual Meeting, Indianapolis, April 1994
52. Crystal Chemistry and Crystallography of compounds in the Ba-Cu-O System, American Ceramics Society Annual Meeting, Indianapolis, April 1994
53. X-ray Characterization of Zn₂SiO₄ and (Zn,Cr₂SiO₄), American Ceramics Society Annual Meeting, Indianapolis, April 1994
54. Molecular Orbital Investigation of Effects of Water and Ammonia on Crack Growth in Vitreous Silica and Silicon, American Ceramics Society Annual Meeting, Indianapolis, April 1994
55. Microstructural Effect on Corrosion, American Ceramics Society Annual Meeting, Indianapolis, April, 1994.
56. Melting equilibria of the 2212 Bi-Sr-Ca-Cu-O phase, DOE phase equilibria workshop, July, 1994, Virginia
57. X-ray Diffraction Study of BaNd₂CuO₅ at High Pressures, Denver X-ray conference, Steamboat Springs, CO, August, 1994
58. X-ray Characterization of the Melting Equilibria of the 2212-Bi-Sr-Ca-Cu-O Superconductor, Denver X-ray conference, Steamboat Springs, CO, August, 1994
59. Melting Equilibria of the Bi-Sr-Ca-Cu-O System in air, High T_c workshop, NIST, October, 1994

60. Molecular orbital Investigation of effects of environments on crack growth in vitreous silica and silicon, MRS Boston 1994 Falls meeting
61. Single crystal structural investigation of BaO₂, MRS Boston 1994 Falls meeting
62. Evidence for liquid immiscibility in the system BaO-YO_{1.5}-CuO_x MRS Boston 1994 Falls meeting
63. Melting Investigation in the Bi-Sr-Ca-Cu-O System in air, MRS Boston 1994 Falls meeting.
64. Single crystal structural investigation of BaO₂, ICDD March Meeting, Newtown Square, PA, 1995.
65. Melting Equilibria of the System Bi-Sr-Ca-Cu-O. American Ceramics Society annual meetings, April, 1995.
66. Phase relationships of high T_c superconductors, DOE Annual Peer Review in Washington DC, July, 1995.
67. Superconducting Phase formation in Bi(Pb)-Sr-Ca-Cu-O Glasses. American Ceramics Society annual meetings, April, 1995.
68. High pressure Study of BaR₂CuO₅, R=Nd and Lu. American Ceramics Society annual meetings, April, 1995.
69. Phase Equilibria of the "Raveau phase" in the Bi-Sr-Ca-Cu-O System. American Ceramics Society annual meetings, April, 1995.
70. Molecular Orbital Calculations Comparing Water Enhanced Bond Breaking in SiO₂ and Si, American Ceramics Society annual meetings, April, 1995.
71. Ceramic Magnets: Structural Studies of Compounds in the BaO-Fe₂O₃-TiO₂ System, ACA annual meeting, Montreal, July, 1995
72. Ceramic Magnets: Structural Studies of Compounds in the BaO-Fe₂O₃-TiO₂ System, ICDD Oct. meeting, Technical Committee poster session, Newtown Square, PA, 1995.
73. Crystallization field investigation of the system Bi-Sr-Ca-Cu-O, ACA annual meeting, Montreal, Canada, July, 1995.
74. NIST-ACerS Phase Equilibria Diagrams Databases, Denver x-ray conference workshop, August, 1995.
75. X-ray characterization of the Melting Equilibria of High T_c Phases in the Bi-Sr-Ca-Cu-O System, Denver x-ray conference, Colorado Springs, CO, August, 1995.
76. Non-stoichiometry of the BaCuO_{2+x}, MRS Falls meeting, Boston, 1995.
77. NIST-ACerS Phase Equilibria Diagrams Databases, Denver x-ray conference workshop, August, 1995.
78. Phase Equilibria of High T_c Compounds in the Bi(Pb)-Sr-Ca-Cu-O System, AcerS Annual Meeting, Cincinnati, Ohio, April, 1996.
79. Melting Characterization of the 2223 Phase in the Bi(Pb)-Sr-Ca-Cu-O System. AcerS Annual Meeting, Cincinnati, Ohio, April, 1996.
80. ICDD/PDF Superconductor MiniFile. ACerS Annual Meeting, Cincinnati, Ohio, April, 1996.
81. X-ray Diffraction Study of Ba₂HgCuO_{4+δ} at High Pressures. ACerS Annual Meeting, Cincinnati, Ohio, April, 1996.
82. Subsidiary Phase Relationships of the Pb-Sr-Ca-O System at 840-850 °C, ACerS Annual Meeting, Cincinnati, Ohio, April, 1996.
83. Phase Equilibria of 1223 Melting in the System (Tl-Pb-Ba-Sr-Ca-Cu-O), ACerS Annual Meeting, Cincinnati, Ohio, April, 1996.
84. X-Ray Diffraction Study of Selected High T_c Superconductors and related Phases at High Pressure. Denver X-ray Conference, Denver, Aug. 1996.
85. X-ray Rietveld Refinements and Reference Patterns of BaSrRCu₃O_x (R=lanthanides). Denver X-

- ray Conference, Denver, Aug. 1996.
86. The ICDD/PDF Superconductor MiniFile. Denver X-ray Conference, Denver, Aug. 1996.
 87. Crystallization Field Investigation of the (Bi, Pb)-Sr-Ca-Cu-O System. IUCr meeting, Seattle, Aug. 1996.
 88. Structural Investigation of Microwave Titanates. IUCr meeting, Seattle, Aug. 1996.
 89. High Temperature X-Ray Diffraction Study of the Melting Sequence of the 2223 Phase in the Bi-Sr-Ca-Cu-O System. IUCr meeting, Seattle, Aug. 1996.
 90. Structural Characterization of the $\text{Bi}_{16}(\text{Sr,Ca})_{14}\text{O}_x$ Solid Solution, MRS Annual meeting, Boston, Nov. 1995.
 91. Phase relationships of high T_c superconductors, DOE Annual Peer Review in Washington DC, July, 1996.
 92. Phase Equilibria of three Pb-Containing Ternary Oxide Systems: Bi_2O_3 - PbO_x -CuO, PbO_x -CaO-CuO, and PbO_x -CaO-SrO, Boston MRS Falls meeting, Dec. 1996.
 93. Crystallographic Investigation of Ceramic Magnets in the $\text{BaO-Fe}_2\text{O}_3\text{-TiO}_2$ System, Boston MRS Falls meeting, Dec. 1996.
 94. Melting Equilibria of Phase Assemblage Containing Pb-Substituted 2223 and 2212 BSCCO Superconductors, Boston MRS Falls meeting, Dec. 1996.
 95. X-Ray Diffraction Study of High T_c Superconductors and related Phases at High Pressure. ICDD Annual meeting, Newtown Square, PA, March 1997.
 96. Preliminary melting Data on Pb-2223 ([Bi:Pb]-Sr-Ca-Cu) Phase Under 7.5% O_2 , Am. Ceram. Soc. Meeting, April, Cincinnati, Ohio (1997).
 97. Phase relationships of high T_c superconductors, DOE Annual Peer Review in Washington DC, July, 1997.
 98. Melt Evolution in the BSCCO System, Am. Ceram. Soc. Meeting, Cincinnati, Ohio, May, 1997.
 99. Phase Equilibria of the Pb-2223 (Bi:Pb:Sr:Ca:Cu:O) Phase. Am. Crystallogr. Assoc. meeting, July, St. Louis, 1997.
 100. ICDD/PDF Data base of Engineering Materials. Denver x-ray meeting, Aug. 1997.
 101. Structural Investigation of $(\text{Sr, Ca})_4\text{PtO}_6$ via Rietveld Refinement. Denver x-ray meeting, Aug. 1997.
 102. Crystal Structure and Standard X-Ray Pattern of $\text{Ba}_4\text{Ti}_{10}\text{Al}_2\text{O}_{27}$. Denver x-ray meeting, Aug. 1997.
 103. Neutron Diffraction Studies of BaR_2ZnO_5 (R = La, Nd, Dy, Ho, and Y). Denver x-ray conference, Aug. 1997.
 104. Phase formation of the High T_c Pb-2223 in air and in 7.5% O_2 , 1997 MRS Falls meeting in Boston, MA, Dec.
 105. Structural Studies of the 3221/451 Phase in the Bi-Pb-Sr-Ca-Cu-O System. 1997 MRS Falls meeting in Boston, MA, Dec.
 106. ICDD/PDF Data base of Engineering Materials, Denver x-ray Conference, Aug. 1997.
 107. Crystal Structure and Standard X-Ray Pattern of $\text{Ba}_4\text{Ti}_{10}\text{Al}_2\text{O}_{27}$. Denver x-ray meeting, Aug. 1997.
 108. Melting Equilibria of Phase Assemblage Containing Pb-Substituted 2223 and 2212 BSCCO Superconductors, 1997 MRS Falls meeting in Boston, MA, Dec.
 109. Three-Phase boundaries of the BSCCO 2212 Primary Liquidus volumes Phase formation of the High T_c Pb-2223 in Air and in 7.5% O_2 , 1997 MRS Falls meeting in Boston, MA, Dec.
 110. Structural Investigation of $(\text{Sr, Ca})_4\text{PtO}_6$ via Rietveld Refinement. ICDD March annual meeting, March 17-18, 98. Newtown Square, PA.
 111. Phase relationships of high T_c superconductors, DOE Annual Peer Review in Washington DC,

July, 1998.

112. Interaction of Pb-BSCCO oxides with Ag at various oxygen pressures, ACerS 1998 annual meeting, Cincinnati, Ohio, May, 1998.
113. Effect of Ag on the Primary Crystallization Field of the Pb-2223 High T_c Superconductors, Acers annual meeting, Cincinnati, Ohio, May 1998.
114. Melting of $Sr_{14}Cu_{24}O_{41}$ at Oxygen Pressures of 0.0075, 0.0021 and 0.1MPa, ACers annual meeting, Cincinnati, Ohio, May 1998.
115. Rietveld Refinements of BaR_2ZnO_5 (R=La,Nd, Sm, Eu, Gd, Dy, Ho, Y, and Er), American Crystallographic Assoc. annual meeting, Arlington, VA, July 18-23, 1998.
116. The Determination of the Crystallization Fields of the 2212 and Pb-2223 High T_c Superconductor Phases in the (Bi:Pb)-Sr-Ca-Cu System. American Crystallographic Assoc. annual meeting, Arlington, VA, July 18-23, 1998.
117. X-Ray Diffraction Studies of the PbO-SrO System, Denver X-ray Conference, Colorado Springs, CO, Aug. 3-7, 1998.
118. Phase Formation of the Pb-2223 High Temperature Superconductor in the (Bi,Pb)-Sr-Ca-Cu-O System, Denver X-ray Conference, Colorado Springs, CO, Aug. 3-7, 1998.
119. Effect of Ag on the primary crystallization field of the Pb-2223 high T_c superconductor, MRS Boston Fall annual meeting, Boston, MA, 1998.
120. Phase equilibria of the PbO-SrO system, MRS Boston Fall annual meeting, Boston, MA, 1998.
121. Melting equilibria of the Pb-2223 high T_c superconductor as a function of oxygen partial pressure, ACerS annual meeting, Indianapolis, IN, April 26-28, 1999.
122. Structural/Property relationships of titanate ceramics in the $BaO:Fe_2O_3:TiO_2$ system, ACA annual meeting, Buffalo, May, 1999.
123. Phase equilibrium relations of high T_c phases, DOE peer review, Washington DC, July 26, 1999.
124. Crystallographic studies of the SrR_2CuO_5 series (R=lanthanides) by Rietveld refinements, Denver X-ray conference, August, 1999, Steamboat Spring, CO.
125. Powder X-ray Study of $Sr_2R_2GaCu_2O_7$ (R=Pr, Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm, Yb and Y) by Rietveld refinement technique, Denver X-ray conference, August, 1999, Steamboat Spring, CO.
126. Crystallographic study of the low-temperature form of $Bi_2(Sr,Ca)_4O_x$, MRS annual Fall meeting, Boston, MA, Nov. 1999.
127. Phase equilibria and crystal chemistry of the SrO- R_2O_3 -CuO systems, R=lanthanides, MRS annual Fall meeting, Boston, MA, Nov. 1999.
128. Crystal chemistry, structure and property investigation of the high T_c superconductor solid solution phase, $Ba_{2-x}(Nd,Yb)_{1+x}Cu_3O_{6+z}$, ACerS 102 Annual meeting, St. Louis, MO, April 29-May3, 2000.
129. Phase equilibria and crystal chemistry of the SrO- R_2O_3 -CuO systems, R=lanthanides, ACerS 102 Annual meeting, St. Louis, MO, April 29-May3, 2000.
130. Phase relationships of High T_c superconductors, DOE Annual Peer Review in Washington DC, July, 2000.
131. X-Ray and neutron Rietveld refinements of compounds in the Sr-R-Cu-O system (R = Lanthanides), Denver X-ray Conference, Denver, CO, July 31-Aug. 4, 2000.
132. Standard reference material; (SRM1990) for single crystal diffractometer alignment, Denver X-ray Conference, Denver, CO, July 31-Aug. 4, 2000.
133. Crystal chemistry, structure and property investigation of the high T_c superconductor solid solution phase, $Ba_{2-x}(Nd,Yb)_{1+x}Cu_3O_{6+z}$ in Air and 0.1% O_2 , Applied Supercond. Conference,

Virginia Beech, VA, Sept. 18-22, 2000.

134. Structure and properties of the tetragonal tungsten bronze related phases in the systems, ACerS Fall meeting, Clemson University, Clemson, SC, Oct. 9-11, 2000.
135. Crystal Structure Studies of Compounds in the Alkaline-earth Tantalate and Niobate Systems, ACerS Annual meeting, Indianapolis, April 23-25, 2001.
136. Phase Equilibria and Crystal Chemistry of Compounds in the BaO-R₂O₃-CuO_x Systems (R = Y and Nd) in 0.1% O₂ and Purified Air, ACerS Annual meeting, Indianapolis, April 23-25, 2001.
137. Phase relationships of high T_c superconductors, DOE Annual Peer Review in Washington DC, Aug., 2001.
138. High Temperature X-ray Study of Phase formation of Ba₂YCu₃O_x Films Using the BaF₂ Process, Symposium on High-T_c Superconductors – Novel Processing and Applications in the New Millennium, PAC RIM IV meeting, American Ceramic Society, Maui, Hawaii, Nov. 4-8, 2001.
139. Phase Relations in the Ba-Y-Cu-F-O-H System, Material Research Society Fall Meeting, Nov. 26-30, 2001, Boston, MA.
140. Phase relationships of high T_c superconductors, annual Department of Energy Peer Review in Washington DC, July 19, 2002.
141. Phase equilibria of the Ba-Y-Cu-F-O-H system, 104th Annual Meeting of ACerS, April 29-May 1, 2002, St. Louis, MO.
142. Phase equilibria and crystal chemistry of compounds in the BaO-R₂O₃-CuO_x system (R=Nd, Sm, Gd, Y) under 0.1%O₂, 104th Annual Meeting of ACerS, April 29-May 1, 2002, St. Louis, MO.
143. X-ray and neutron refinements of BaR₂ZnO₅ and Ba₅R₈Zn₄O₂₁, The 51th Annual Denver X-ray Conference, July 29- Aug. 2, 2002, Colorado Springs, CO.
144. High-temperature x-ray study of phase evolution of Ba₂YCu₃O_{6+x} films using BaF₂ process, 51th Annual Denver X-ray Conference, July 29- Aug. 2, 2002, Colorado Springs, CO.
145. X-Ray Diffraction Studies of the Superconductor MoRuP Prepared at High Pressure, International Union of Crystallography Congress, Geneva, Switzerland, Aug. 5-15, 2002.
146. The Structure and Electronic Properties of the Orthorhombic MoRuP Superconductor, High Temperature Superconductor Symposium, Materials Research Society Fall Meeting, Boston, MA, Dec 2, 2002.
147. Phase Formation of Ba₂YCu₃O_{6+x} in the Ba-Y-Cu-F-O-OH System, High Temperature Superconductor Symposium, Materials Research Society Fall Meeting, Boston, MA, Dec 2, 2002.
148. Phase Relations in the Ba-R-Cu-O and Ba-Y-Cu-O-F Systems, High Temperature Superconductor Symposium, Materials Research Society Fall Meeting, Boston, MA, Dec 2, 2002.
149. Crystal Chemistry of Compounds in the Alkaline-earth Tantalate and Niobate Systems, symposium on Functional Ceramics, the 27th Annual Cocoa Beach Conference & Exposition on Advanced Ceramics & Composites, Jan. 26-31, 2003, Cocoa Beach, FL.
150. Phase Relations and Phase Formation in the Ba-Y-Cu-F-O-H₂O System, High Temperature Superconductor Symposium, American Ceramic Society Annual meeting, April 28-30, Nashville, TN.
151. Phase Relations in the Ba-R-Cu-O systems Under 100 Pa O₂. High Temperature Superconductor Symposium, American Ceramic Society Annual meeting, April 28-30, Nashville, TN.
152. Phase Equilibria of Ba-R-Cu-O for Coated-Conductor Applications (R=Lanthanides and Y), 7th International Symposium on Superconductivity (M2S), Rio de Janeiro, Brazil, May 26-30, 2003.
153. Crystal Chemistry and Crystallography of Bi₅AgNb₄O₁₈, A New Phase in the Low-Temperature Cofired Ceramic (LTCC) Bi₂O₃-Ag₂O-Nb₂O₅ System, American Crystallographic Association annual meeting, Covington, Kentucky, July 27-31, 2003.

154. Phase Formation and Texture of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$ Films Using the “ BaF_2 Conversion Process”
Symposium *Epitaxial Growth of Functional Oxides*, Electrochemical Society/American Ceramic Society Annual meeting, October 12-17, 2003, Orlando, FL.
155. Phase Relations in the Ba-R-Cu-O (R = Nd, Sm, Eu, Gd, Ho, Y, and Er) Systems Prepared Under Atmospherically-Controlled Conditions, Superconductor Symposium, Materials Research Society annual meeting, Boston, MA, Dec. 1-5, 2003.
156. Coated Conductors: Phase Relations in the Ba-Y-Cu-F-O-H System, Superconductor Symposium, Materials Research Society annual meeting, Boston, MA, Dec 1-5. 2003.
157. The Structure and Electronic Properties of the Orthorhombic MoRuP Superconductor, ICDD annual meeting, March 23, 2004, Newtown Square, PA
158. Phase Relations in the Ba-R-Cu-O Systems Under 100 Pa O_2 , High T_c superconductor symposium, American Ceramic Society annual meeting, Indianapolis, IN, April 19-21, 2004.
159. Clathrates: Promising materials for Thermoelectric Applications, Ceramics Division Electronic and Optoelectronic Materials Group seminar, NIST, June 2, 2004.
160. Phase Relationships of High- T_c Superconductors, DOE annual peer review, Washington DC, July 20-22, 2004.
161. BaF_2 Process: Phase Evolution of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$ Films, 53rd annual Denver X-ray Conference, Steamboat Springs, Co, August 4, 2004.
162. BaF_2 Process of Long-Length Conductors: High-Temperature Neutron and X-ray Study of YOF, 53rd Annual Denver X-ray Conference, Steamboat Springs, CO, August 6, 2004.
163. Phase Relations and Phase Evolution in the Ba-Y-Cu-F-O- H_2O System, Applied Superconductivity Conference, Jacksonville, FL, Oct 3-8, 2004.
164. Phase Relations in the Ba-R-Cu-O (R=lanthanides and Yttrium) Systems Under 100 Pa O_2 . Applied Superconductivity Conference, Jacksonville, FL, Oct 3-8, 2004.
165. Non-Quenchable Chemical Order-Disorder Phase Transition in Yttrium Oxyfluoride YOF, ICDD annual meeting, Technical symposium, March 14-17, 2005, Newtown Square, PA.
166. Phase Equilibria for Coated-Conductor Research, MRS Spring symposium, Recent Advances in Superconductivity—Materials Synthesis, Multiscale Characterization, and Functionally Layered Composite Conductors, San Francisco, CA, Marh 27-Aprill, 2005.
167. Phase Evolution and Texture Analysis of $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$ Films Using the BaF_2 Process, ACerS annual meeting, symposium “Processing of High Temperature Superconductors,” Baltimore, MD, April 10-13, 2005.
168. Phase Equilibria for Coated-Conductor Applications, ACerS annual meeting, symposium processing of High Temperature Superconductors,” Baltimore, MD, Apr 10-13, 2005.
169. X-ray diffraction Studies of the $\text{Sr}_8\text{Ga}_{16}\text{Ge}_{36}$ and $\text{Cs}_8\text{Na}_{16}\text{Ge}_{136}$ Clathrates: Promising Materials for Thermoelectric Applications (ICDD annual meeting, March 21, 2006.
170. Thermoelectric and Structural Properties of $\text{Ba}_2\text{Ho}(\text{Cu}_{1-x}\text{Co}_x)_3\text{O}_{7-z}$ Solid Solution (2005 MRS Fall meeting, Boston, Nov. 30, 2005.
171. Crystal Chemistry and Crystallography of the $\text{Ba}_2\text{RCu}_3\text{O}_{6+x}$ - SrTiO_3 System (IUCr Conference, Florence, Italy), August 22, 2005.
172. Phase Evolution of Ba-R-Cu-O (R=Lanthanides and Yttrium) films using the BaF_2 Process (ACerS PACRIM in Maui, HI), September 13, 2005.
173. Chemical Interactions of the $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$ Superconductor with CeO_2 Buffer Layer (ACerS PACRIM in Maui, HI), September 12, 2005.
174. Phase relations of High T_c $\text{Ba}_2\text{RCu}_3\text{O}_{6+x}$ Superconductors, MRS Spring Meeting, San

Francisco, CA, April 18, 2006.

175. Kinetics and Phase Equilibria of the Interactions of the $\text{Ba}_2\text{YCu}_3\text{O}_{6+x}$ Superconductor with CeO_2 Buffer Layer, Denver X-ray conference, Denver, CO, August 10, 2006.
176. High-Temperature X-Ray Studies of Transient Phases in Coated Conductors using the “ BaF_2 Process”, Denver X-ray Conference, Denver, CO, August 8, 2006.
177. Phase relationships in high T_c superconductors, DOE annual Peer review, Washington DC July 26, 2006.
178. Texture Analysis of $\text{Ca}_3\text{Co}_4\text{O}_9$ thermoelectric films, MS&T06, Cincinnati, OH, October 15, 2006.
179. Phase relationships in the Ba-Y-Cu-O and Ba-(Nd,Eu,Gd)-Cu-O films, MS&T06, Cincinnati, OH October 17, 2006.
180. Phase relationships of the Ba-Y-Cu-O system using combinatorial approach (US-Japan combinatorial workshop, San Juan, Puerto Rico, December 5-8, 2006.
181. Development of a Seebeck Coefficient Standard Reference Material, ICT2007, Jeju Island, Korea, June 3-8, 2007.
182. Phase Relationships in coated conductors, DOE Wire/Tape Program Review, Crystal City, VA, August 6-8, 2007.
183. Phase relationships of the Ba-Y-Cu-O system using combinatorial approach, ICDD annual meeting, Newtown Square, PA, March 20, 2007.
184. Crystal Chemistry and Crystallography of the Type-II Clathrate, $\text{Cs}_8\text{Na}_{16}\text{Ge}_{136-x}\text{Ag}_x$, and a Novel Phase, $\text{Na}_{1-x}\text{Ge}_{3+z}$, American Crystallographic Association annual meeting, Salt Lake City, Utah, July 22-26, 2007.
185. Development of a Low Temperature Seebeck Coefficient Standard Reference Material, International Conference of Thermoelectrics (ICT2007), June 7, 2007, Jeju Island, Korea.
186. Phase relationships in the Ba-R-Cu-O (R=Y and lanthanides) Films, Symposium “Basic and Applied Needs for Superconductivity”, MS&T07, Sept 16-20, 2007, COBO Center, Detroit, Michigan.
187. Phase relationships of the Coated-Conductor Ba-Sm-Y-Cu-O System, Symposium “Basic and Applied Needs for Superconductivity”, MS&T07, Sept 16-20, 2007, COBO Center, Detroit, Michigan.