

Hui Fang, Ph.D.
Assistant Professor
Department of Physics
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Education

- 2001 Ph.D. Materials Engineering, University of Houston, Houston, TX
- 2002 M.E. Electrical Engineering, University of Houston, Houston, TX
- 1993 M.S. Materials Science, Zhejiang University, Hangzhou, China
- 1990 B.S. Materials Science, Zhejiang University, Hangzhou, China

Professional Experience

- 09/2006 – present **Assistant Professor**
Department of Physics, Sam Houston State University, Huntsville, Texas
- 05/2006 – 08/2006 **Visiting Assistant Professor**
Propulsion Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
(On leave of University of Houston)
- 05/2004 – 08/2006 **Research Assistant Professor**
Department of Mechanical Engineering and Texas Center for Superconductivity, University of Houston, Houston, Texas
- 05/2005 – 08/2005 **Visiting Assistant Professor**
Propulsion Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
(On leave of University of Houston)
- 05/2001 – 04/2004 **Post-Doctoral Researcher**
Department of Mechanical Engineering and Texas Center for Superconductivity and Advanced Materials, University of Houston, Houston, Texas
- 09/1996 – 05/2001 **Research Assistant**
Department of Mechanical Engineering, University of Houston, Houston, Texas
- 03/1993 – 08/1996 **Lecture/Research Associate**
Department of Physics, Zhejiang University, Hangzhou, China
- 09/1990 – 03/1993 **Research Assistant**
Department of Materials Science & Engineering, Zhejiang University, Hangzhou, China

Research Interests

High Temperature Superconducting Materials and Applications, Nanostructured Materials, Mechanical Alloys, Ceramic Synthesis, Far-Infrared Optical Materials

Teaching

- PHY 135: Fundamentals of Physics I
- PHY 138: General Physics I – Mechanics and Heat
- PHY 139: General Physics II – Sound, Electricity and Magnetism, Light
- PHY 141W: Introduction to Physics I – Mechanics
- PHY 142W: Introduction to Physics II – Electricity and Magnetism
- PHY 245W: Introduction to Physics III – Wave, Light, and Modern Physics
- PHY 467: Introduction to Solid State Physics
- MECE 3445: Introduction to Materials Science (University of Houston)

Professional Affiliations

- The Minerals, Metals and Materials Society (TMS)
- Materials Research Society (MRS)
- American Society of Metals, International (ASM International)
- American Physics Society (APS)
- The Electrochemical Society (ECS)

Reviewer

Metallurgical Transactions, Physica C, Superconductor Science and Technology, IEEE Transactions on Applied Superconductivity

Honors and Awards

- Recipient, US Air Force Summer Faculty Fellowship Program Award, 2006.
- Recipient, US Air Force Summer Faculty Fellowship Program Award, 2005.
- Third Prize, 21st TcSUH Student Symposium, May 2001.

University and College Services

- Curriculum Committee, College of Arts and Sciences, Sam Houston State University, since Spring 2009.
- Faculty Achievement Awards Committee, Sam Houston State University (2008 – 2010)
- Credit by Examination Committee, Sam Houston State University(2008 – 2011)

Professional Services

- Session Chair, Session Condense Matter Physics II, The 2009 Fall Meeting of the TSAPS/TSAAPT/SPS, San Marcos, Texas, October 22 - 24, 2009.
- Session Chair, Session M2-M, Cryogenic Engineering Conference and International Cryogenic Materials Conference, June 28-July 2, 2009, Tucson, Arizona.
- Session Chair, Session 2MP, Applied Superconductivity Conference 2008, August 17-22, Chicago, Illinois.
- Judge, Houston Science Fair, April 2008.
- Dissertation Defense Committee, Matteo Alessandrini, Department of Mechanical Engineering, University of Houston, December 2007.

- Co-advisor, Master Thesis, "Electromechanical Properties of Superconducting MgB₂ Wire", Mina Hanna, Department of Mechanical Engineering, University of Houston, December 2005.
- Co-advisor, Master Thesis, "Study of Cu-sheathed MgB₂ superconducting wires", Prashant Gijavanekar, Department of Mechanical Engineering, University of Houston, May 2005.
- Session Chair, Session 5ML, Applied Superconductivity Conference 2004, October 3-8, 2004, Jacksonville, Florida
- Judge, Houston Science Fair, March 2004.

Patent

- "Method of manufacturing Fe-sheathed MgB₂ wires and solenoids", H. Fang and K. Salama, US Patent No. 7,213,325.

Funded Research

1. "Experiment and modeling of the upper critical field of two band MgB₂", Enhancement Grant for Research, Sam Houston State University, \$18,000, 06/01/2009 – 05/31/2010.
2. "Exploring the two band superconductor MgB₂", Faculty Research Grant, Sam Houston State University, \$5000, 06/01/2008 – 08/31/2008.
3. "Study of flux pinning in rare earth doped TFA-MOD YBCO films", Faculty Research Grant, Sam Houston State University, \$5000, 06/01/2007 – 08/31/2007.

Referred Journal Publications

1. "Effects on superconducting properties of Fe-sheathed MgB₂ tapes dual doped with nanosized C and nanosized TiC", H. Fang, and G. Liang, *Advances in Cryogenic Engineering* 56 (2010) 289.
2. "Effects of sintering temperature on superconductivity in Ti-sheathed MgB₂ wires", G. Liang, H. Fang, S. Guchhait, C. Hoyt, and J.T. Markert, *Advances in Cryogenic Engineering* 56 (2010) 281.
3. "In-field J_C enhancement on Ti-sheathed MgB₂ wires doped with TiC nano particles", H. Fang, M. Alessandrini, C. Hoyt, G. Liang, B. Lv, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 19 (2009) 2760.
4. "Effect of thermal neutron irradiation and oxygen on Ti-sheathed MgB₂ wires", H. Fang, M. Alessandrini, X.M. Wang, J.R. Liu, G. Liang, W-K. Chu, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 19 (2009) 3520.
5. "Winding and testing of large bore solenoids, and study of quench propagation in short coils made with multifilament MgB₂ tape", M. Alessandrini, P.T. Putman, G. Majkic, H. Fang, F.R. Chang-Diaz, G. Grasso, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 18 (2008) 945.
6. "Behavior of a 14 cm bore solenoid with multifilament MgB₂ tape", M. Alessandrini, R. Musenich, R. Penco, G. Grasso, D. Nardelli, R. Marabotto, M. Modica, M. Tassisto, H. Fang, G. Liang, F.R. Chang-Diaz, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 17 (2007) 2252.

7. "Negative effects of crystalline-SiC doping on the critical current density in Ti-sheathed $\text{MgB}_2(\text{SiC})_y$ superconducting wires", G. Liang, H. Fang, Z.P. Luo, C. Hoyt, F. Yen, S. Guchhait, B. Lv, and J. t. Markert, *Superconductor Science and Technology*, 20 (2007) 697.
8. "Effects of MgO impurities and micro-cracks on the critical current density of Ti-sheathed MgB_2 wires", G. Liang, M. Alessandrini, F. Yen, M. Hanna, H. Fang, C. Hoyt, B. Lv, J. Zeng, and K. Salama, *Physica C*, 457 (2007) 47.
9. "Mechanical property of superconducting MgB_2 wire", M. Hanna, H. Fang, Y.X. Zhou, M. Alessandrini, P.T. Putman, and K. Salama, *Journal of Materials Processing Technology*, 181 (2007) 44.
10. "Development of Ti-sheathed MgB_2 Wires with High Critical Current Density", G. Liang, H. Fang, M. Hanna, F. Yen, B. Lv, M. Alessandrini, S. Keith, C. Hoyt, Z. Tang, and K. Salama, *Superconductor Science and Technology*, 19 (2006) 1146.
11. "Growth techniques for monolithic YBCO solenoidal magnets", S.J. Scruggs, P.T. Putman, H. Fang, M. Alessandrini, and K. Salama, *Physica C*, 445-448 (2006) 312.
12. "Phase formation in Cu-sheathed MgB_2 wires", G. Liang, H. Fang, D. Katz, Z. Tang, and K. Salama, *Physica C*, 442 (2006) 113.
13. "Synthesis and X-ray diffraction pattern of MgB_2 ", G. Liang, Z. Tang, H. Fang, D. Katz, and K. Salama, *Journal of Alloys and Compounds*, 422 (2006) 73.
14. "The potential application of MgB_2 superconducting magnets in space", M. Alessandrini, H. Fang, M. Hanna, Y.X. Zhou, P.T. Putman, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 16 (2006) 1442.
15. "Hot seeding using large Y-123 seed", S.J. Scruggs, P.T. Putman, Y.X. Zhou, H. Fang, and K. Salama, *Superconductor Science and Technology*, 19 (2006) S451.
16. "Sm and Nd substitutions in YBCO films produced through metal-organic deposition", B.C. Harrison, H. Fang, J. Carpenter, P. Klenk, C.V. Varanasi, and P.N. Barnes, *Advances in Cryogenic Engineering*, 52 (2006) 771.
17. "High critical current of Ti-sheathed MgB_2 wire for AC and weight-critical applications", M. Alessandrini, H. Fang, M. Hanna, Y.X. Zhou, P.T. Putman, and K. Salama, *Superconductor Science and Technology*, 19 (2006) 129.
18. "Electromechanical Properties of superconducting MgB_2 wire", K. Salama, Y.X. Zhou, M. Hanna, M. Alessandrini, man, and K. SalamH. Fang, *Superconductor Science and Technology*, 18 (2005) S369.
19. "Development of Single Solution Buffer Layers on Textured Ni Substrate for HTS Coated Conductors", Y.X. Zhou, X. Zhang, H. Fang, P.T. Putman, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 15 (2005) 2711.
20. "High critical current of Cu-sheathed MgB_2 wire at 20 K", H. Fang, P. Gijavanekar, Y.X. Zhou, G. Liang, P.T. Putman, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 15 (2005) 3215.
21. "Development of Fe-sheathed MgB_2 wires and tapes for electric power applications", H. Fang, P. Gijavanekar, Y.X. Zhou, P.T. Putman, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 15 (2005) 3200.

22. "Application of melt-textured YBCO to electromagnetic launchers", P.T. Putman, Y.X. Zhou, H. Fang, A. Klawitter, and K. Salama, *Superconductor Science and Technology*, 18 (2005) S6.
23. "The manufacturing of an electroplated Ni layer on textured Cu substrate for Cu-based HTS coated conductors", Y.X. Zhou, L. Sun, X. Chen, H. Fang, P.T. Putman, and K. Salama, *Superconductor Science and Technology*, 18 (2005) 107.
24. "Densification of MgB₂ cores in iron-clad tapes", H. Fang, Y.Y. Xue, Y.X. Zhou, A. Baikalow, and K. Salama, *Superconductor Science and Technology*, 17 (2004) L27.
25. "Transport critical current on Fe-sheathed MgB₂ coils", H. Fang, P.T. Putman, S. Padmanabhan, Y.X. Zhou, and K. Salama, *Superconductor Science and Technology*, 17 (2004) 717.
26. "On the study of the liquid infiltration and seeded growth process", H. Fang, Y.X. Zhou, K. Ravi-Chandar, and K. Salama, *Superconductor Science and Technology*, 17 (2004) 269.
27. "High transport properties in iron-clad MgB₂ wires and tapes", H. Fang, S. Padmanabhan, Y.X. Zhou, P.T. Putman, and K. Salama, *Ceramic Transactions*, 149 (2003) 75.
28. "Chemical coated buffer layers deposited on rolled Ni substrates for HTS coated conductors", Y.X. Zhou, S. Bhuiyan, H. Fang, and K. Salama, *Ceramic Transactions*, 149 (2003) 51.
29. "New seeding method for texturing YBCO bulk superconductor: multiple seeded melt growth", Y.X. Zhou, H. Fang, U. Balachandran, and K. Salama, *Ceramic Transactions*, 149 (2003) 103.
30. "Role of mechanical deformation in texturing of coated conductor composites", Y.X. Zhou, S. Bhuiyan, S. Scruggs, H. Fang, and K. Salama, *Superconductor Science and Technology*, 16 (2003) 1077.
31. "Strontium titanate buffer layers deposited on rolled Ni substrates with metal organic deposition", Y.X. Zhou, S. Bhuiyan, S. Scruggs, H. Fang, M. Mironova, and K. Salama, *Superconductor Science and Technology*, 16 (2003) 901.
32. "High I_c in iron-clad MgB₂ tape", H. Fang, S. Padmanabhan, Y.X. Zhou, P.T. Putman, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 13 (2003), 3207.
33. "Melt-textured YBCO superconducting tube for magnetic shielding", H. Fang, J.R. Claycomb, Y.X. Zhou, P.T. Putman, S. Padmanabhan, J.H. Miller, Jr., K. Ravi-Chandar, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 13 (2003) 3103.
34. "Enhancement of superconducting properties of textured YBCO using double seeded technique", Y.X. Zhou, H. Fang, U. Balachandran, and K. Salama, *IEEE Transactions on Applied Superconductivity*, 13 (2003) 3072.
35. "High critical current density in iron-clad MgB₂ tapes", H. Fang, S. Padmanabhan, Y. X. Zhou, and K. Salama, *Applied Physics Letters*, 82 (2003) 4113.
36. "Fabrication of Y123 disk by the seeded infiltration and growth method", H. Fang, and K. Ravi-Chandar, *Physica C* 340 (2000) 261.
37. "Liquid infiltration and growth process in fabrication of YBCO", H. Fang, and K. Ravi-Chandar, *Physica C* 341-348 (2000) 2427.

38. "Nanocrystalline Y-Ba-Cu-O powder", H. Fang, and K. Ravi-Chandar, *Journal of Superconductivity*, 11 (1998) 555.
39. "Dielectric characteristics in nanostructured Fe_2O_3 ", X. Ye, J. Sha, B. Chen, H. Fang, and Z. Jiao, *Nanostructured Materials* 8 (1997) 329.
40. "Quantum fluctuation of charge and current in a mesoscopic circuit", B. Chen, H. Fang, and Z. Jiao, *Chinese Science Bulletin*, 41 (1996) 729.
41. "Anomalous dielectric behaviors in nanostructured Fe_2O_3 ", H. Fang, B. Chen, K. Jiang, and Q. Zhang, *Physica Status Solidi (b)* 192 (1995) K11.
42. "Superconductivity mechanism of BaKBiO_3 ", B. Chen, C. Yu, H. Fang, and Q. Zhang, *Physica C* 250 (1995) 367.
43. "The quantum fluctuation of a domain wall system", B. Chen, H. Fang, and Q. Zhang, *Physica Status Solidi (b)* 190 (1995) K1.
44. "Magnetic excitation in Peierls-Hubbard model", B. Chen, and H. Fang, *Physica Status Solidi (b)* 192 (1995) 145.
45. "Quantum effects in a mesoscopic circuit", B. Chen, H. Fang, and Q. Zhang, *Physics Letters A* 205 (1995) 121.
46. "Interaction of hopping electrons with acoustic phonons", C. Yu, B. Chen, and H. Fang, *Comm. in Theoretical Physics* 24 (1995) 127.
47. "Study of far-IR transmitting Te-Se-X system glasses", Z. Wang, J. Xu, H. Fang, and Q. Chen, *Journal of Chinese Ceramic Society* 22 (1994) 211 (in Chinese).

Conference and Seminar Presentations

1. "In-field critical current density of MgB_2 wires doped with SiC and rare-earth oxide", H. Fang, B. Wiggins, T. Neeley, J. Hill, and G. Liang, *Applied Superconductivity Conference*, August 1 – 6, 2010, Washington D. C.
2. "Effect of the size of the doped SiC nanoparticles on the critical current density of the Ti-sheathed MgB_2 superconducting wires", G. Liang, H. Fang, S. Keith, and C. Hoyt, *Applied Superconductivity Conference*, August 1 – 6, 2010, Washington D. C.
3. "Preparation and characterization of $\text{Li}(1-3x)\text{Cr}(x)\text{FePO}_4$ cathode materials for lithium ion batteries", Jessica Burk, Kenneth Swatzel, Jacob Hill, Travis Neeley, Yamin Chowdhury, Hui Fang, and Gan Liang, *Joint Spring 2010 Meeting of the Texas Sections of the APS, AAPT, and SPS*, Austin, Texas, March 18 - 20, 2010.
4. "W doping effects on LiFePO_4 cathode materials with carbon coating for lithium-ion batteries", Jacob Hill, Travis Neeley, Jessica Burk, Kenneth Swatzel, Yamin Chowdhury, Hui Fang, and Gan Liang, *Joint Spring 2010 Meeting of the Texas Sections of the APS, AAPT, and SPS*, Austin, Texas, March 18 - 20, 2010.
5. "Zr doping effects on LiFePO_4 with carbon coating for lithium-ion batteries", Travis Neeley, Jacob Hill, Jessica Burk, Kenny Swatzel, Yamin Chowdhury, Gan Liang, and Hui Fang, *Joint Spring 2010 Meeting of the Texas Sections of the APS, AAPT, and SPS*, Austin, Texas, March 18 - 20, 2010.
6. "Cation doping effects on LiFePO_4 for lithium-ion batteries", H. Fang, T. Neeley, J. Hill, and G. Liang, *Materials Research Society Fall Meeting*, November 30 – December 4, 2009, Boston, MA.
7. "Introduction to physics and materials science of lithium ion batteries", Hui Fang, *Physics Colloquium*, Sam Houston State University, Huntsville, Texas, November 18, 2009.

8. "Synthesis and characterization of LiFePO₄ cathode with Fe:P deficiency for lithium ion batteries", H. Fang, T. Neeley, J. Hill, and G. Liang, The 2009 Fall Meeting of the TSAPS/TSAAPT/SPS, San Marcos, Texas, October 22 - 24, 2009.
9. "W doping effects of LiFePO₄ cathode materials for lithium-ion batteries", J. Hill, J. Sanchez Berlanga, T. Neeley, G. Liang, and H. Fang, The 2009 Fall Meeting of the TSAPS/TSAAPT/SPS, San Marcos, Texas, October 22 - 24, 2009.
10. "Zr doping effects on LiFePO₄ cathode materials for lithium-ion batteries", T. Neeley, J. Hill, J. Sanchez Berlanga, G. Liang, and H. Fang, The 2009 Fall Meeting of the TSAPS/TSAAPT/SPS, San Marcos, Texas, October 22 - 24, 2009.
11. "Effects of sintering temperature on superconductivity in Ti-sheathed MgB₂ wires", G. Liang, H. Fang, C. Hoyt, S. Guchait, and J.T. Markert, Cryogenic Engineering Conference and International Cryogenic Materials Conference, June 28-July 2, 2009, Tucson, Arizona.
12. "Effects on superconducting properties of Fe-sheathed MgB₂ tapes dual doped with nanosized C and nanosized TiC", H. Fang, and G. Liang, Cryogenic Engineering Conference and International Cryogenic Materials Conference, June 28-July 2, 2009, Tucson, Arizona.
13. "In-field J_c enhancement on Ti-sheathed MgB₂ wires doped with TiC nano particles", H. Fang, M. Alessandrini, C. Hoyt, G. Liang, B. Lv, and K. Salama, Applied Superconductivity Conference, August 17-22, 2008, Chicago, Illinois.
14. "Effect of thermal neutron irradiation and oxygen on Ti-sheathed MgB₂ wires", H. Fang, M. Alessandrini, X.M. Wang, J.R. Liu, G. Liang, W-K. Chu, and K. Salama, Applied Superconductivity Conference, August 17-22, 2008, Chicago, Illinois.
15. "Pinning enhancement of Tb doped TFA-MOD YBCO films", H. Fang, G. Liang, B.C. Harrison, J. Carpenter, and P. Barnes, The 2007 Fall Meeting of the TSASP/TSAAPT/SPS, College Station, Texas, October 18-20, 2007.
16. "Effects of sintering temperature on superconductivity in undoped and SiC-doped MgB₂/Ti wires", C. Hoyt, H. Fang, J. Douglas, K. West, and G. Liang, The 2007 Fall Meeting of the TSASP/TSAAPT/SPS, College Station, Texas, October 18-20, 2007.
17. "Study of large bore solenoids made with multifilament MgB₂", M. Alessandrini, P. Putman, K. Salama, H. Fang, F.R. Chang-Diaz, 20th International Conference on Magnet Technology, MT-20, August 27 - 31, 2007, Philadelphia, Pennsylvania.
18. "Study of the Physical Properties of Titanium Sheath in Ti-sheathed MgB₂ Superconducting Wires", C. Hoyt, J. P. Diehl, H. Fang, and G. Liang, The 2007 Spring Meeting of the TSAAPT/TSAPS/SPS, Abilene, Texas, March 22-24, 2007.
19. "Effects of Grain Size and Doping Level on the Critical Current Density of the Ti-sheathed MgB₂ Superconducting Wires with SiC Doping", G. Liang, H. Fang, C. Hoyt, Z. P. Luo, F. Yen, M. Hanna, A. Alessandrini, and K. Salama, The 2007 March Meeting of the American Physical Society, Denver, Colorado, March 5-9, 2007.
20. "Study of the Effect of the SiC Doping on the Critical Current Density of the Ti-sheathed MgB₂ Superconducting Wires", G. Liang, H. Fang, S. Keith, C. Hoyt, M. Hanna, F. Yen, B. Lv, M. Alessandrini, and K. Salama, The Joint Fall Meeting of the Texas Sections APS, AAPT, FIAP, and SPS, Arlington, Texas, October 5-7, 2006.
21. "Development of Ti-sheathed MgB₂ Superconducting Wires with Very High Current-carrying Capability", H. Fang, G. Liang, C. Hoyt, M. Hanna, M. Alessandrini, F. Yen, B. Lv, Z. Tang, and K. Salama, The Joint Fall Meeting of the Texas Sections APS, AAPT, FIAP, and SPS, Arlington, Texas, October 5-7, 2006.
22. "Behavior of small coils using mono/multifilamentary MgB₂ strands of various shapes, cross section and heat treatment", M. Alessandrini, H. Fang, K. Salama, G. Liang, and

- F.R. Chang-Diaz, Invited Talk, Applied Superconductivity Conference 2006, August 27 – September 1, 2006, Seattle, Washington.
23. “Development of Superconducting Wires for Electric Power Applications”, H. Fang, Invited Seminar, Zhejiang University, Hangzhou, China, May 22, 2006.
 24. “Development of Superconducting Wires for Electric Power Applications”, H. Fang, Invited Seminar, Hangzhou Teachers College, Hangzhou, China, May 21, 2006.
 25. “Sm and Nd Doped YBCO Films Produced Through Metal Organic Deposition”, Craig Harrison, Hui Fang, Jason Carpenter, Patrick Klenk, Chakrapani V. Varanasi, and Paul N. Barnes, The MRS Spring Meeting, April 17 – 21, 2006, San Francisco, California.
 26. “Some XRD and SEM results on Cu-sheathed MgB₂ superconducting wires”, S. Keith, G. Liang, H. Fang, and K. Salama, TSAPS/TSAAPT/SPS Joint Spring Meeting, March 23 – 25, 2006, San Angelo, Texas.
 27. “Growth techniques for monolithic YBCO solenoidal magnets”, S. J. Scruggs, P. T. Putman, Y. X. Zhou, H. Fang, and K. Salama, 18th International Symposium on Superconductivity, October 24 – 26, 2005, Tsukuba, Japan.
 28. “Use of a hot-seeded melt texturing technique with large Y123 seeds”, S. J. Scruggs, P. T. Putman, Y. X. Zhou, H. Fang, and K. Salama, 5th International Workshop on Processing and Applications of Superconducting (RE)BCO Large Grain Materials (PASREG), October 21 – 23, 2005, Tokyo, Japan.
 29. “Quantitative analysis of the MgB₂ phase in Cu-sheathed superconducting MgB₂ wires”, S. Keith, G. Liang, H. Fang, and K. Salama, TSAPS/TSAAPT/SPS Joint Fall Meeting, October 20 – 22, 2005, Houston, Texas.
 30. “The potential application of MgB₂ superconducting magnets in space”, M. Alessandrini, H. Fang, and K. Salama, 19th International Conference on magnet Technology, September 18 – 23, 2005, Genova, Italy.
 31. “Mechanical properties of superconducting MgB₂ wire”, M. Hanna, H. Fang, and K. Salama, 4th Japanese-Mediterranean Workshop On Applied Electromagnetic Engineering For Magnetic, Superconducting and Nano Materials, September 17 – 20, 2005, Cairo, Egypt.
 32. “Sm and Nd substitutions in YBCO films produced through metal-organic deposition”, B.C. Harrison, H. Fang, J. Carpenter, P. Klenk, C.V. Varanasi, and P.N. Barnes, International Cryogenic Materials Conference (ICMC), August 29 –September 2, 2005, Keystone, Colorado.
 33. “Study on the formation of MgB₂ and other phases in Cu-sheathed MgB₂ wires”, G. Liang, H. Fang, D. Katz, K. Salama, and Z. Tang, 2005 APS March Meeting, March 21-25, 2005, Los Angeles, California.
 34. “Phase identification of Cu-sheathed MgB₂ superconducting wires”, G. Liang, D. Katz, H. Fang, K. Salama, and Z. Tang, APS/AAPT/SPS Spring Meeting 2005, March 3-5, 2005, Nacogdoches, Texas.
 35. “A linear motor configuration for use with persistent current magnets”, P.T. Putman, Y.X. Zhou, H. Fang, and K. Salama, Applied Superconductivity Conference 2004, October 3-8, 2004, Jacksonville, Florida.

36. "High critical current of Cu-sheathed MgB₂ wire at 20 K", H. Fang, P. Gijavanekar, Y.X. Zhou, G. Liang, P.T. Putman, and K. Salama, Applied Superconductivity Conference 2004, October 3-8, 2004, Jacksonville, Florida.
37. "Development of Single Solution Buffer Layers on Textured Ni Substrate for HTS Coated Conductors", Y.X. Zhou, X. Zhang, H. Fang, P.T. Putman, and K. Salama, Applied Superconductivity Conference 2004, October 3-8, 2004, Jacksonville, Florida.
38. "Development of Fe-sheathed MgB₂ wires and tapes for electric power applications", H. Fang, P. Gijavanekar, Y.X. Zhou, P.T. Putman, and K. Salama, Applied Superconductivity Conference 2004, October 3-8, 2004, Jacksonville, Florida.
39. "Development of MgB₂ superconducting wires for electric power applications", K. Salama, and H. Fang, Invited Talk, 106th Annual Meeting & Exposition of the American Ceramic Society, April 18-21, 2005, Indianapolis, Indiana.
40. "High critical current density in iron-clad MgB₂ tape", H. Fang, and K. Salama, Invited Talk, 105th Annual Meeting & Exposition of the American Ceramic Society, April 27-30, 2003, Nashville, Tennessee.
41. "High I_c in iron-clad MgB₂
and K. Salama, Applied Superconductivity Conference 2002, August 4-9, 2002, Houston, Texas.
42. "Superconductivity of iron-clad nanocrystalline MgB₂ wires", H. Fang, Y.X. Zhou, and K. Salama, Applied Superconductivity Conference 2002, August 4-9, 2002, Houston, Texas.
43. "Melt-textured YBCO superconducting tube for magnetic shielding", H. Fang, J. Claycomb, Y.X. Zhou, P.T. Putman, K. Ravi-Chandar, and K. Salama, Applied Superconductivity Conference 2002, August 4-9, 2002, Houston, Texas.
44. "Enhancement of superconducting properties of textured YBCO using double seeded technique", Y.X. Zhou, H. Fang, U. Balachandran, and K. Salama, Applied Superconductivity Conference 2002, August 4-9, 2002, Houston, Texas.
45. "The beauty of SIG process", H. Fang, 21st
May 1, 2001, Houston, Texas
46. "Photo-assisted processing of nano-particles for the fabrication of high performance YBCO large grain materials", H. Lu, H. Fang, W. Lo, and K. Ravi-Chandar, Applied Superconductivity Conference 2000, September 17-22, 2000, Virginia Beach, Virginia
47. "Fabrication of Y123 disk by seeded infiltration and growth method", H. Fang, and K. Ravi-Chandar, 6th International Conference on Materials and Mechanisms of Superconductivity and High Temperature Superconductors, February 20-25, 2000, Houston, Texas.
48. "Processing YBCO with superior transport properties using nanocrystalline precursor", H. Fang, 14th
49. "Preparation and characterization of high energy ball milled YBCO nanosized powders", H. Fang, and K. Ravi-Chandar, The 1998 TMS Annual Meeting, February 15-19, 1998, San Antonio, Texas

50. "Superconductivity mechanism of BaKBiO_3 ", B. Chen, H. Fang, and Q. Zhang, 3rd National Conference Superconductivity of China, November 4-10, 1995, Hangzhou, China
51. "Anomalous dielectric behaviors in Nanostructured Fe_2O_3 ", H. Fang, B. Chen and Q. Zhang, 3rd International Conference on Nanocrystalline Materials, February 19-24, 1995, Hefei, China

Technical Reports

1. "Experiment and modeling of two-band MgB_2 ", H. Fang, Final Report of Faculty Research Grant, 2008.
2. "Study of flux pinning in rare earth doped TFA-MOD YBCO films", H. Fang, Final Report of Faculty Research Grant, 2007.