

CURRICULUM VITAE

NAME

Kamel Salama

EDUCATION

Ph.D.	Cairo University	1959	Physics
M.S.	Cairo University	1955	Physics
B.S. (Hons.)	Cairo University	1951	Physics & Mathematics

PROFESSIONAL EXPERIENCE

1978 - Present	Professor, University of Houston, Department of Mechanical Engineering
1978 - Present	Director, Materials Engineering Program, University of Houston
Jan '83-Aug '83	Distinguished Visiting Scientist, Materials Characterization Section, NASA Langley Research Center, Hampton, VA
1974 - 1978	Associate Professor, University of Houston, Department of Mechanical Engineering
1973 - 1974	Visiting Associate Professor, University of Houston, Department of Mechanical Engineering
1968 - 1973	Senior Research Scientist, Rice University, Materials Science Department
1966 - 1968	Research Consultant, Ford Scientific Laboratory, Dearborn, Michigan
1962 - 1964	Research Associate, Uppsala University, Sweden (On leave from Cairo University)
1960 - 1965	Lecturer, Faculty of Science, Cairo University, Cairo, Egypt

TEACHING (* Course Originator)

ENGI 2334	Thermodynamics
MECE 2336	Mechanics
MECE 3445	Materials Science
MECE 5339	Introduction to Engineering Alloys
MECE 5377*	Fundamentals Of Nondestructive Testing
MECE 6363*	Physical Metallurgy
MECE 6364*	Solidification and Heat Treatment
MECE 7373*	Mechanical Behavior of Metals
MECE 7370*	Flow and Fracture of Solids
MECE 7397*	Superconducting Ceramic Materials

SUPERVISION OF RESEARCH

Theses/Dissertations Supervised and Completed:

Velit Seyfettin, "A System to Study the Influence of Ultrasound on Mechanical Behavior," May 1976, M.S.

Anon Tulyanon, "Slip Line Characteristics of Insinuated Copper and Aluminum," December 1976, M.S.

Richard K. Lamerand, "The Use of Ultrasound in the Prediction of Fatigue Life in Brass and Aluminum," November 1977, M.S.

Rodolfo M. Ippolito, "The Effect of Prestrain on the Temperature Dependence of Ultrasonic Velocities in Pure Aluminum and Copper," May 1978, M.S.

Ching-Kai Ling, "The Effect of Elastic Stress on the Temperature Dependence of Ultrasonic Velocities in Aluminum and Copper," August 1979, M.S.

Mohammad M. Farahani, "Hydrogen Embrittlement in Single- and Poly-Crystal Niobium," May 1980, Ph.D.

Chi-Ren Clarence Ko, "Effects of Hydrogen on the Elastic Constants of Vanadium and Palladium Single Crystals," August 1980, Ph.D.

Sepher Fariabi, "Effects of Hydrogen on Near-Threshold Fatigue Crack Propagation in Niobium," August 1981, Ph.D.

Jen-Jo Wang, "The Use of the Temperature Dependence of Ultrasonic Velocity in the Measurements of Residual Stress in A 533 B Steel," November 1981, M.S.

Gary C. Barber, "Temperature and Stress Dependences of Ultrasonic Velocity in Aluminum," September 1982, M.S.

Farouk G. Attia, "Effects of Hydrogen on Strength and Ductility of Tantalum," April 1983, Ph.D.

N. Chandrasekaran, "Temperature and Stress Dependences of Ultrasonic Shear Velocity in Steel," June 1983, M.S.

Danesh Nikoonezhad, "Ultrasonic Fretting Wear of an Austenitic Stainless Steel", August 1984, M.S., with S. Soderberg.

Todd B. Colvin, "Ultrasonic Fretting Wear of a Ferritic Low Carbon Steel", August 1984, M.S., with S. Soderberg.

Nikom Polvanich, "Temperature Dependence of the Near-Threshold Fatigue Crack Growth in Niobium-Hydrogen Alloys", August 1985, Ph.D.

Shyr-Liang Chu, "Effects of Texture on the Temperature Dependence of Ultrasonic Wave Velocities and Their Variations with Stress in Aluminum Alloys," May 1986, Ph.D.

Yow-Hsing Wu, "The Use of Ultrasonic Velocity in the Determination of Stress Relief of Plastically Deformed Aluminum Alloys", May 1986, M.S.

Ching-Cheng Lin, "Fatigue Crack Growth in Niobium-Hydrogen Alloys", July 1986, M.S.

Shakeel Syed Razvi, "Acoustic Nonlinearity Parameter and Acoustoelastic Constant of Aluminum Alloys," December 1986, M.S.

Dominic Lee, "Ultrasonic Nondestructive Characterization of SiC-Reinforced Aluminum Metal-Matrix Components", December 1987, M.S.

Martin Spies, "Nondestructive Determination of Materials' Textures by Ultrasonic Techniques", December, 1988, M.S.

V. Selvamanickam, "Liquid Phase Processing of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductors", December, 1988, M.S.

Ching-Cheng Lin, "Effects of Crack Closure on Fatigue Crack Growth in NB-H Alloys", May 1989, Ph.D.

Sundeep Rele, "Effects of Processing Parameters and Doping on the Microstructural, Mechanical Properties and Superconducting Properties of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductors"; August 1989, M.S.

Bertil Grelsson, "Ultrasonic Determination and Modeling of Elastic Properties of Metal-Matrix Composites", August 1990, M.S.

Peter Berg, "Numerical Studies of Magnetization in High-Temperature Superconductors", August 1990, M.S.

S. Jayashankar, "Processing and Characterization of Aluminum/Silicon Carbide Composites", December 1990, M.S.

H. Mohrbacher, "Temperature Dependence of Nonlinear Ultrasonic Effects", February 1991, M.S.

Xavier Chaud, "Superconducting Properties of Oriented-Grained 123/25 wt% Ag Composites", December 1991, M.S.

Dag Willen, "Development of Methods to Control Grain Boundary Properties in YBCO Superconductor", December 1991, M.S.

D.F. Lee, "Effects of Normal-Phase Inclusions on the Processing and Properties of $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor", May 1992, Ph.D.

V. Selvamanickam, " Directional Solidification Processing of $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor: Grain Orientation, Defects and Critical Currents", August 1992, Ph.D.

P. Murthy, " The Effects of Processing on the Magnetic Force of YBCO Superconductors", Dec. 1992, M.S.

P. Foltyn, " Nondestructive Investigation of Thermal Stresses in Metal-Matrix Composites Using Ultrasonic Velocity Measurements", Dec. 1992, M.S., with Ravi-Chandar.

B.C. Meyer, "Study of Grain Boundary Misorientation in Melt-Textured YBCO superconductor", May 1993, M.S.

A. Parikh, "Processing of Grain Boundaries with High Current Carrying in Melt-Textured YBCO Superconductors", Aug. 93, M.S.

M. Nilsson, "Study of the Current-Voltage Characteristics of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors, Dec. 93, M.S.

M. Orrhede, "Elastic Constants and Thermal Expansion of Aluminum/Silicon Carbide Composites", Dec. 93, M.S.

A. Satpathy, "Hot Isostatic Pressing of Melt-Textured YBCO Superconductors", May 94, M.S.

Y. Zhang, "Deformation Processing of Melt-Textured YBCO Superconductors", May 94, M.S.

J. Wahnschaffe, "The Evaluation of Fatigue Behavior in Metal-Matrix Composites Using Ultrasonic Techniques", Aug. 94, M.S.

M. Mironova, "TEM study of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors", Aug 94, Ph.D.

S. P. Athur, "Study of Growth Kinetics in Melt-Textured YBCO", May 95, M. S.

R. Tolani, "Nondestructive Characterization of Interfacial Residual Stresses in Metal Matrix Composites", May 95, M. S.

A. Agarwal, "Processing and Characterization of Al/SiC Composites Manufactured by Isostatic Pressing", Aug. 95, M.S.

S. Sathyamurthy, "Processing of Bulk Polycrystalline YBCO Using Melt Texturing with Liquid Phase Removal Method", December 95, M. S.

S.P. Tirumala, "Reaction Kinetics and Thermomechanical Processing of Bi-2223 Tapes Fabricated Using Aerosol Precursors", May 96, M.S.

S. Kulkarni, "Hot Isostatic Processing and Characterization of Al/SiC Composites", Dec. 96, M.S.

N. Mourik, "Ultrasonic Characterization of Material States in Aluminum Alloy Welds", Dec. 97, M.S.

G. Du, "TEM Study of Grain Boundaries in Melt Textured $\text{Yb}_2\text{Cu}_3\text{O}_{7-x}$ Superconductors", May 98, Ph.D.

Md Rahman, "Densification and Ultrasonic Nondestructive Characterization of Al-SiC Metal Matrix Composites", Dec. 98, M.S.

K. Thangaraj "Heat Treatment Studies in BSCCO 2212/Ag Tape Fabricated By PIT Technique," Aug'99, M.S.

G. Majkic "Creep of Polycrystalline $\text{SrCo}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$ Mixed Ionic-Electronic Conductor Perovskite Oxide," Aug'99, M. S. (With L. T. Wheeler).

L. Zhang "Study of Ag/BSCCO Interface in Ag-Sheathed Multifilament Bi-2223 Tapes," Dec. 99, M. S.

J. Lobera Serrano, "Nondestructive Evaluation of Corrosion in Aluminum Plates Using SQUID", May 2000.

S. Sathyamurthy, "Application of Solution Deposition Technique to Coated Conductor Fabrication", May 2000, Ph.D.

S. Athur, "Phase-Formation and Melt-processing of Ag-Clad Yb-123 Tapes", May 2000, Ph.D.

T. Rizwan, "Texturing of Nickel Substrates for YBCO Coated Conductors", May 2002, M. S. (with L.T. Wheeler)

G. Majkic, "High Temperature Creep and Defect Chemistry of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$ In Oxygen Controlled Atmosphere", August 2002, Ph.D. (with L.T. Wheeler)

V. Bhosle, "Dehydrogenation of Titanium Hydride and its Applications", March 2003, M.S. (with E. Baburaj)
S.R. Bhuiyan, "Study of Chemically Deposited Buffer Layers for YBCO Coated Conductors", May 2004, Ph.D.

R.A. Nagib, "Development of Metallic Textured Substrates for Coated Conductors Using Powder Metallurgy", May 2005, M.S.

P. Gijavanekar, "Study of Cu-Sheathed MgB_2 Superconducting Wires", May 2005, M.S.

M. Hanna, "Electromechanical Properties of Superconducting MgB₂ Wires", Dec. 2005, M.S.

Steven Scruggs, "Hot Seeding of Y-123 using Large Y-123 Seeds ", Aug. 2006, M.S.

Students Enrolled Now Being Supervised:

Ph.D. - 3

M.S. - 3

SPECIAL HONORS FOR RESEARCH

Member, The International Seminar for Research and Education in Physics, Uppsala University, Sweden, 1962-1963.

The Jacob Wallenberg Foundation Award for Research in Materials Science, The Swedish Academy of Engineering, Stockholm, Sweden, 1982.

Associate Editor, Journal of Superconducting Science and Technology

Associate Editor, Journal of Research in NDE, 1989-Present.

Director, Executive Council, International Congress on Fracture, 1985-89.

Chairman, Seventh International Conference on Fracture, March 1989.

Co-Editor of Six Volumes on Advances in Fracture Research, Pergamon Press, 1989.

Co-Editor of a Volume on HTS Materials, Bulk Processing and Bulk Applications, World Scientific, 1992.

Co-Editor of Proceedings, "Processing and Applications of Large Grain High Temperature Superconductors"

Vice-President, Executive Council, International Congress on Fracture, 1989-1993.

Engineering Faculty Research Excellence Award, University of Houston 1990.

Honorary Fellowship, International Congress on Fracture, 1993.

Fellow, The Institute of Physics, United Kingdom

Co-Editor for PASREG Workshop, held in Seattle, WA, 2001.

Co-Editor of 3 Volume, Proceedings of 5th International Conference, Materials and Mechanisms of Superconductivity, 2002

Co-Editor for PASREG Workshop, held in Jena, Germany, 2003.

Co-Editor for PASREG Workshop, held in Tokyo, Japan, 2005.

PUBLICATIONS

Referred Journals:

- M. Mokhtar and K. Salama, "Ultrasonic Absorption in Mixtures of Organic Liquids," Proc. Math. Phys. Soc. Egypt **21**, p. 77, 1957.
- M. Mokhtar and K. Salama, "Effect of Dipole Moment and Temperature on the Ultrasonic Absorption in Mixtures of Organic Liquids," Proc. Math. Phys. Soc. Egypt **21** p. 83, 1957.
- M. Mokhtar and K. Salama, "Ultrasonic Absorption in Non-Associated Organic Liquids," Proc. Third International Congress on Acoustics, p. 573, 1960.
- M. Mokhtar and K. Salama, "On the Structural Absorption of Ultrasonic Waves in Toluene," Acoustica, **12** p.50, 1962.
- K. Salama, and H. Youssef, "Ultrasonic Absorption in Non-Associated Polar Liquids," Proc. Math. Phys. Soc. Egypt **27** p. 71, 1963.
- M. Mongy, K. Salama and O. Beckman, "Dislocation Relaxation in Aluminum," Solid State Communications **1**, p. 234, 1963.
- J. Vallin, O. Beckman and K. Salama, "Elastic Constants of CsBr and CsI from 4.2 K to Room Temperature," J. Appl. Phys. **35**, p. 1222, 1964.
- J. Vallin, M. Mongy, K. Salama and O. Beckman, "Elastic Constants of Aluminum," J. Appl. Phys. **35**, p. 1222, 1964.
- J. Vallin, M. Mongy, K. Salama and O. Beckman, "Elastic Constants of Aluminum," J. Appl. Phys. **35**, p. 1825, 1964.
- M. Mongy, K. Salama and O. Beckman, "Study of the Bordoni Peak in Single and Polycrystalline Copper," El Nuovo Cimento **34**, p. 869, 1964.
- M. Mongy, K. Salama and O. Beckman, "Study of the Bordoni Peak in Silver Single Crystal," El Nuovo Cimento **35**, p. 10, 1965.
- G.A. Alers and K. Salama, "Interaction of Dislocations with High Frequency Sound Waves," Dislocation Dynamics, McGraw-Hill Book Co., p. 211, 1967.
- K. Salama, and G.A. Alers, "Third Order Elastic Constants of Copper at Low Temperature," Phys. Rev. **161**, p. 673, 1967.
- K. Salama, and G.A. Alers, "Elastic Moduli Variations at the Martensitic Transformation of and Fe-Ni Alloy," J. Appl. Phys. **39**, p. 4856, 1968.
- M. Mokhtar, K. Salama and A. Abdel Fatah, "Threshold Cavitation Pressure in Liquids at Ultrasonic Frequencies," Proc. Math. Phys. Soc. Egypt **32**, p. 29, 1968.
- K. Salama, and G. A. Alers, "The Third Order Elastic Moduli of Pure Nickel and Some Dilute Cu-Ni Alloys," IEEE Trans., Sonics and Ultrasonics **SU-16**, p. 28, 1969.
- K. Salama, and J.M. Roberts, "Back Recovery Microstrains in Stage II Deformation of Copper," Scripta Metallurgica **4**, p. 749, 1970.

- K. Salama, and J.M. Roberts, "Nonelastic Microstrains and Damping Loops in the Easy Glide Region," Physica Status Solidi (a) **3**, p. 511, 1970.
- K. Salama, F. Shaikh and J.M. Roberts, "Microstrain and Electron Microscopic Slip Line Studies of Ordered and Disordered Cu₃Au," Acta Met. **19**, p. 393, 1971.
- K. Salama, and J.M. Roberts, "The Fine Structure of Slip Lines in Disordered Cu₃Au," Materials Science and Engineering **9**, p. 50, 1972.
- K. Salama, P.L. Donoho and F.R. Brotzen, "Effect of Magnetic Field on the Ultrasonic Propagation in terbium Single Crystals," IEEE Trans., Sonics and Ultrasonics, SU-19, p. 409, 1972.
- K. Salama, F.R. Brotzen and P.L. Donoho, "Elastic Constants of Terbium Between 78 and 300 K," J. Appl. Phys. **43** (8), p. 3254, 1972.
- K. Salama, P.L. Donoho and F.R. Brotzen, "Linear Magnetoacoustic Birefringence in Dysprosium," AIP Cong. Proc., Magnetism and Magnetic Materials **10** p. 764, 1972.
- K. Salama, F.R. Brotzen and P.L. Donoho, "Elastic Constants of Holmium Between 78 and 300 K," J. Appl. Phys. **44** (1), p. 180, 1973.
- K. Salama, C.L. Melcher and P.L. Donoho, "Magnetoelastic Coupling in Paramagnetic Terbium," Proc. of Ultrasonic Symposium, p. 309, 1973.
- W.C. Hubbell, K. Salama, C.L. Melcher and P.L. Donoho, "Magnetoplastic Effects in Erbium" AIP Conf. Proc., Magnetism and Magnetic Materials **18**, p. 1263, 1974.
- A. Tulyano and K. Salama, "Ultrasonic Fatigue in Copper and Aluminum," IEEE Proc. Ultrasonic Symposium, p. 644, 1976.
- W.L. Stewart, G. Alexandropolus, J.M. Roberts and K. Salama, "Effect of Hydrogen on the Temperature Dependence of the Elastic Constants of Tantalum Single Crystals," J. Appl. Physics, **48**, p. 75, 1977.
- K. Salama, and G.A. Alers, "The Composition Dependence of the Third Order Elastic Constants of the Cu-Ni System," Phys. Stat. Solid (a) **41**, p. 241, 1977.
- R.M. Ippolito, and K. Salama, "Evaluation of Residual Stresses by an Ultrasonic Method," Proc. 11th Symposium on Nondestructive Evaluation, p. 62, 1977.
- R.M. Ippolito, and K. Salama, "The Sensitivity of the Temperature Dependence of the Ultrasonic Velocity to Residual Stresses," Proc. ASNT Conference, p. 175, 1977.
- K. Salama, W.J. Arnoult and J.M. Roberts, "Internal Stress Field in the Easy Glide Region," Scripta Metallurgica **12**, p. 125, 1978.
- K. Salama, "Hydrogen Embrittlement in Hydride-Forming Materials," Proc. Mat. Chem. **78**, 1978.
- R.M. Ippolito, and K. Salama, "An Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses," Proc. 24th International Instrumentation Symposium, p. 403, 1978.
- K. Salama, and R.M. Ippolito, "The Use of Temperature Dependence of Ultrasonic Velocity to Evaluate Residual Stress," Proc. First International Symposium on Ultrasonic Materials Characterization, p. 201, 1978.
- K. Salama and C.K. Ling, "Nondestructive Determination of Bulk Stresses in Aluminum and Copper," Proc. ARPA/AFML Review of Progress in Quantitative NDE, p. 96, 1979.

- C.R. Ko, K. Salama and J.M. Roberts, "Effect of Hydrogen on the Elastic Moduli of Vanadium," Proc. IEEE Ultrasonic Symposium, p. 466, 1979.
- K. Salama and C.K. Ling, "The Effect of Stress on the Temperature Dependence of Ultrasonic Velocity," J. Appl. Phys. 51, p. 1505, 1980.
- K. Salama, A.L. W. Collins and Jen-Jo Wang, "The Determination of Tensile Stresses Using the Temperature Dependence of Ultrasonic Velocity," Proc. DARPA/AF Review of Progress in Quantitative NDE, p. 265, 1980.
- C.R. Ko, K. Salama and J.M. Roberts, "Effect of Hydrogen on the Temperature Dependence of Elastic Constants of Vanadium Single Crystals," J. Appl. Phys. 51 p.1014, 1980.
- K. Salama, "New Developments in Measuring Residual Stresses Using Ultrasonic Techniques," Preprint of Technical Papers, SESA Fall Meeting, p. 56, 1980.
- K. Salama, C.K. Long and Jo-Jen Wang, "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity," Preprint of Technical Papers, SESA Fall Meeting, p. 16, 1980.
- K. Salama and C.R. Ko, "Effect of Hydrogen on the Temperature Dependence of the Elastic Constants of Palladium Single Crystals," J. Appl. Phys. 51, p. 6202, 1980.
- M.M. Farahani, F. Attia, and K. Salama, "Hydrogen Embrittlement in Single-and Poly-Crystal Niobium," Met. Trans. 12A, p. 631, 1981.
- K. Salama, C.K. Ling and J.J. Wang, "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity," Experimental Techniques Vol. 5, p. 14, 1981.
- K. Salama, J.J. Wang and A.L.W. Collins, "Nondestructive Evaluation of Bulk Residual Stresses in Steels," Proc. Thirteenth Symposium on NDE, 1981.
- K. Salama and R.K. Lamerand, "The Prediction of Fatigue Life Using Ultrasound Testing," Proc. of International Conf. on Fatigue and Corrosion Fatigue up to Ultrasonic Frequencies, p. 109, 1982.
- K. Salama, J.J. Wang and G.C. Barber, "The Use of the Temperature Dependence of Ultrasonic Velocity to Measure Residual Stress," Proc. Review of Progress in Quantitative NDE, Plenum, p. 1355, 1982.
- K. Salama and J.J. Wang, "The Use of the Temperature Dependence of Ultrasonic Velocity to Measure Applied and Residual Stresses," Proc. of the Germany-United States Workshop on Research and Development to New Procedures in NDT, Springer-Verlag, p. 539, 1982.
- K. Salama, G.C. Barber and N. Chandrasekaran, "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity," Proc. IEEE Ultrasonic Symposium, p. 877, 1982.
- S. Fariabi, A.L. W. Collins and K. Salama, "Effects of Hydrogen on Near-Threshold Crack Propagation in Niobium," Met. Trans. 14A, p. 701, 1983.
- N. Chandrasekaran and K. Salama, "Relationship Between Stress and Temperature Dependence of Ultrasonic Shear Velocity," Proc. Symposium on Nondestructive Methods for Material Property Determination, p. 393, 1983.
- K. Salama, G.C. Barber and N. Chandrasekaran, "Nondestructive Stress Measurements in Aluminum," Proc. 14th Symposium on NDE, p. 505, 1983.
- S.G. Allison, J.S. Heyman, and K. Salama, "Ultrasonic Measurement of Residual Deformation Stress in Thin Metal Plates Using Surface Acoustic Waves," Proc. IEEE Ultrasonic Symposium, p. 995, 1983.

- J.S. Heyman, S.G. Allison, K. Salama and S.L. Chu, "Effect of Carbon Content on Relationship Between Temperature Dependence of Ultrasonic Velocity and Applied Stress in Steels," Proc. of Symposium on Nondestructive Evaluation, Applications to Materials Processing, p. 177, 1984.
- N. Chandrasekaran, Y.H. Wu and K. Salama, "Determination of Stress Generated by Shrink Fit," Proc. of Symposium on Nondestructive Evaluation, Applications to Materials Processing, p. 147, 1984.
- E. Schneider, S.L. Chu and K. Salama, "Nondestructive Determination of Mechanical Properties," Annual Review of Progress in Quantitative NDE, p. 867, 1984.
- K. Salama, "Relationship Between Temperature Dependence of Ultrasonic Velocity and Stress," Annual Review of Progress in Quantitative NDE, D.O. Thompson and D.E. Chimenti, eds., p. 1109, 1984.
- S.G. Allison, J.S. Heyman and K. Salama, "Effect of Prestrain Upon Acoustoelastic Properties of Carbon Steel," Proc. IEEE Ultrasonic Symposium, p. 997, 1984.
- E. Schneider, S.L. Chu and K. Salama, "Influence of Texture on the Temperature Dependence of Ultrasonic Velocities," Proc. IEEE Ultrasonic Symposium, p. 994, 1984.
- F.G. Attia and K. Salama, "Effects of Hydrogen and Temperature on Yielding of Tantalum," Proc. Sixth International Conference on Fracture, Vol. 6, p. 4009, 1984.
- S. Fariabi, A.L.W. Collins and K. Salama, "Effects of Hydrogen on Plastic Zone in Near-Threshold Fatigue Crack Propagation," Proc. Sixth International Conference on Fracture, Vol. 6, p. 3997, 1984.
- K. Salama, E. Schneider and S.L. Chu, "Acoustoelastic Constants in Dilute Two-Phase Alloys," Proc. Review of Progress in Quantitative NDE, p. 1431, 1985.
- S.G. Allison, J.S. Heyman and K. Salama, "Ultrasonic Characterization of Plastic Deformation in Metals," Proc. Review of Progress in Quantitative NDE, p. 1565, 1985.
- E. Schneider, S.L. Chu and K. Salama, "Influence of Texture on the Variations of Temperature Dependence of Ultrasonic Wave Velocities with Stress," Proc. Ultrasonics International, London, England, p. 133, 1985.
- J.S. Heyman, S.G. Allison and K. Salama, "The Effect of Carbon Concentration and Plastic Deformation on Ultrasonic Higher Order Elastic Properties of Steel," Proc. Ultrasonics International, London, England, p. 786, 1985.
- S. Soderberg, T. Colvin, D. Nikoonezhad, O. Vingsbo and K. Salama, "Ultrasonic Fretting Wear in Steels," Proc. Ultrasonics International, London, England, p. 929, 1985.
- P. Li, W.T. Yost, J.H. Cantrell, and K. Salama, "Dependence of Acoustic Nonlinearity Parameter on Second Phase Precipitates of Aluminum Alloys," Proc. IEEE Ultrasonic Symposium, p. 1113, 1985.
- S. Soderberg, T.B. Colvin, K. Salama and O. Vingsbo, "Ultrasonic Fretting Wear of a Plain Carbon Steel," J. of Eng. Materials and Technology, Vol. 108, p. 153, 1986.
- S. Soderberg, S. Nikoonezhad, K. Salama and O. Vingsbo, "Accelerated Fretting Wear Testing Using Ultrasonics," J. of Ultrasonics, Vol. 24, p. 348, 1986.
- K. Salama, "Nondestructive Characterization of Materials Properties," Proceedings of the First OMAE Specialty Symposium on Offshore and Arctic Frontiers, ASME, p. 449, 1986.
- C.C. Lin, N. Polvanich, and K. Salama, "Fatigue Crack Growth in Nb-H Alloys," Proc. Sixth European Conference on Fracture, p. 1647, 1986.

- S. Razvi, P. Li, K. Salama, J.H. Cantrell and W.T. Yost, "Nondestructive Characterization of Aluminum Alloys," Proc. of Review of Progress in QNDE, p. 1403, 1986.
- J.H. Cantrell, W.T. Yost, S. Razvi, P. Li and K. Salama, "Effective Nonlinearity Parameters of Aluminum Alloys as a Function of Volume Fraction of Second Phase Precipitates," Proceedings IEEE Ultrasonic Symposium, p. 1075, 1986.
- C.C. Lin, N. Polvanich and K. Salama, "Effect of Temperature on the Plastic Zone in Near-Threshold Fatigue Crack Propagation in Nb-H Alloys," Proceedings of OMAE, p.97,1987.
- D. F. Lee, S. Razvi, K. Salama and E. Schneider, "Nondestructive Characterization of Metal-Matrix Composites," Proceedings 16th Symposium on Nondestructive Evaluation, p. 153, 1987.
- K. Salama Ravi-Chandar, V. Selvamanickam, D.F. Lee, P.K. Reddy and S.V. Rele, "The Influence of Fabricating Technologies on the Structure and Properties of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$," J. of Metals, vol. 40, p. 6, 1988.
- V. Selvamanickam and K. Salama, "Mechanical Properties of Partially Melttable Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$," Proc. 4th Annual Northeast Regional Meeting on 'Processing and Application of High T_C Superconductors TMS Publication', W.E. Mayo ed., p. 193, 1988.
- D.F. Lee and K. Salama, "Elastic Properties and Debye Temperature of Partially Melted $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductor," Modern Phys. Lett. B, Vol. 1, p. 1111,1988.
- M. Spies and K. Salama, "Ultrasonic Evaluation of Textures in Metal-Matrix Composites," Proceedings of QNDE Vol. 8B, p. 1871, 1988.
- D.F. Lee, K. Salama and E. Schneider, "Ultrasonic Characterization of Si-C Reinforced Aluminum," Proc. 3rd International Symposium on Nondestructive Characterization of Materials, p. 173,1988.
- V. Selvamanickam and D. Salama, "Characterization of Mechanical and Microstructural Properties of Copper- $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconducting Composites," Proc. ASME Winter Meeting, p. 35, 1988.
- S. Rele, K. Ravi-Chandar and K. Salama, "Effect of Raw Material Purity on the Superconducting and Mechanical Properties of $\text{Y}_1\text{Ba}_2\text{Cu}_3\text{O}_{7-x}$," Proc. ASME Winter Meeting, p. 47, 1988.
- N. Polvanich and K. Salama, "Temperature Dependence of Fatigue-Crack Propagation in Niobium-Hydrogen Alloy," Symposium on Test Method for Hydrogen Embrittlement, ASTM, STP, 962, p. 417, 1988.
- C.C. Lin and K. Salama, "Effect of Crack Closure in Niobium Hydrogen Alloys," Proc. Seventh International Conference on Fracture, K. Salama et. al. eds., p. 1783, 1989.
- K. Salama, V. Selvamanickam, L. Gao and K. Sun, "High Current Density in Bulk $\text{YBa}_2\text{Cu}_3\text{O}$ Superconductor," Appl. Phys. Let. Vol. 54, p. 2352, 1989.
- M. Spies and K. Salama, "Texture of Metal-Matrix Composites by Ultrasonic Velocity Measurements," Research in Nondestructive Evaluation, Vol. 1 , p. 99, 1989 .
- H. Kupfer, C. Keller, K. Salama and V. Selvamanickam, "Inductive Current Measurements in an Oriented $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Appl. Phys. Letters 55, p. 1903, 1989.
- K. K. Salama Ravi-Chandar, D.M.R. Taplin and P. Rama Rao, "Advances in Fracture Research," 6 Volumes, Pergamon Press Publisher, 1989.

- H. Kupfer, C. Keller, K. Salama and V. Selvamanickam, "Inductive Current Measurements in an Oriented $\text{YBa}_2\text{Cu}_3\text{O}_x$," Phys. Rev. B. (Rapid Comm.) Vol. 4, p. 839 1990.
- B. Grelsson and K. Salama, "Elastic Anisotropy in Particle/Fiber Reinforced Aluminum Metal-Matrix Composites," In Press Proc. ONDE Vol. 9B, p. 1441, 1990.
- M. Spies and K. Salama, "Relationship Between Elastic Anisotropy and Texture in Metal-Matrix Composites," J. of Ultrasonics Vol., 28, p. 370 1990.
- C. Keller, H. Kupfer, R. Meier-Hirmer, U. Wiech, V. Selvamanickam and K. Salama, "Critical Currents in Oriented Grained $\text{YBa}_2\text{Cu}_3\text{O}_x$ - Part I," Cryogenics, Vol. 30, p. 401, 1990.
- C. Keller, H. Kupfer, R. Meier-Hirmer, U. Wiech, V. Selvamanickam and K. Salama, "Irreversible Behavior of Oriented Grained $\text{YBa}_2\text{Cu}_3\text{O}_x$ - Part II," Cryogenics, Vol. 30, p. 410 1990.
- V. Selvamanickam and K. Salama, "Processing of High Current Density $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Proc. MRS Fall Mtg., 169, p. 279, 1990.
- T.L. Francavilla, V. Selvamanickam, K. Salama and D.H. Liebenberg, "The Effect of Magnetic Field on the dc Transport Critical Current Density in Oriented Grained Y-BA-Cu-O," Cryogenics, Vol. 30, p. 606, 1990.
- C. Meingast, B. Blank, H. Burkle, B. Obst, T. Wolf, H. Wuhl, V. Selvamanickam and K. Salama, "Anisotropic Pressure Dependence of T_c in Single Crystal $\text{YBa}_2\text{Cu}_3\text{O}_x$ Via Thermal Expansion," Phys. Rev. B., Vol. 41, p. 11299, 1990.
- R. Weinstein, In-Gann Chen, J. Liu, D. Parks, V. Selvamanickam, and K. Salama, "Persistent Magnetic Fields Trapped in High T_c Superconductor," Appl. Phys. Letters, Vol. 56, p. 1475, 1990.
- D. F. Lee and K. Salama, "Enhancements in Current Density and Mechanical Properties of Y-B-Cu-O/Ag Composites," Japanese Journal of Applied Physics, Vol. 29, p. 2017, 1990.
- B. Grelsson and K. Salama, "Elastic Constants of Particle and Fiber Reinforced Metal-Matrix Composites," Research in Nondestructive Evaluation, Vol. 2, p. 83, 1990.
- V. Selvamanickam and K. Salama, "Transport Current in Oriented Grained Bulk $\text{YBa}_2\text{Cu}_3\text{O}_7$ Superconductor," Proc. TMS Annual Meeting, High Temperature Superconductivity Compounds, Part II, p. 51, 1990 .
- V. Selvamanickam and K. Salama, "Anisotropy and Intergrain Current Density in Oriented Grained Bulk $\text{YBa}_2\text{Cu}_3\text{O}_x$," Appl. Phys. Letters, Vol. 57, p. 1575, 1990.
- C. Keller, H. Kupfer, A. Gurevich, R. Meir-Hirmer, T. Wolf, R. Flukinger, V. Selvamanickam and K. Salama, "Magnetic field and Temperature Dependence of Flux Creep in Oriented Grained and Single Crystalline $\text{YBa}_2\text{Cu}_3\text{O}_x$," J. Appl. Phys., Vol. 68, p. 3498, 1990.
- J. Wosik, R.A. Kranenburg, J.C. Wolf, V. Selvamanickam, and K. Salama, "Millimeter Wave Surface Resistance of Grain Oriented $\text{YBa}_2\text{Cu}_3\text{O}_x$ Bulk Material," J. Appl. Phys., Vol. 69, p. 874, 1991.
- G. Kozlowski, S. Rele, D. Lee and K. Salama, "Grain Growth Enhancement in Silver-Doped $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor," Journal of Materials Science, Vol. 26, p. 1056, 1991.

- H. Kupfer, C. Keller, R. Meier-Hirmer, K. Salama, V. Selvamanickam and G.P. Tartaglia, "Critical Current and Relaxation of Oriented $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ after Fast Neutron Irradiation," IEEE Trans. on Magnetics Vol. 27, p. 1369, 1991.
- H. Mohrbacher, D. Lee, E. Schneider and K. Salama, "Acoustic Nonlinearity in Metal-Matrix Composites," Proc. QNDE, Vol. 10B, p.1821, 1991.
- J.H. Cantrell and K. Salama, "Acoustoelastic Characterization of Materials," International Metals Reviews, Vol. 36, p. 125, 1991.
- J.W. Ekin, K. Salama and V. Selvamanickam, "Current Record in Superconductors," Nature Vol. 350, p. 26, 1991.
- J.C. Cohn, S. A. Wolf, V. Selvamanickam and K. Salama, "Thermoelectric Power of $\text{YBa}_2\text{Cu}_3\text{O}_x$: Phonon-drag and Multi-band Conduction", Phys. Rev. Letters Vol. 66, p. 1098, 1991.
- H. Kupfer, C. Keller, A. Gurevich, K. Salama, and V. Selvamanickam, "Critical current Characterization of Melt-Processed $\text{YBa}_2\text{Cu}_3\text{O}_x$," Proc. of 3rd Int. Symposium. on Supercond. ISS'90: Advances in Supercond. III edited by Kargemora and Hayakawa, p. 709, 1991.
- J. W. Ekin, K. Salama, V. Selvamanickam, "High Transport Current Density up to 30 T in bulk $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ and the critical angle effect," Appl. Phys. Lett. Vol. 59, p. 360, 1991.
- V. Selvamanickam, K. Forster, and K. Salama, "Critical Current Anisotropy in Liquid Phase Processed $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor," Physica C 178, p. 147, 1991.
- V. Selvamanickam and K. Salama, "Critical Current Anisotropy in Oriented-Grained $\text{YBa}_2\text{Cu}_3\text{O}_x$," High Tc Superconducting Compounds III, TMS, edited by Whang, DasGupta and Collings, p. 39 1991.
- M. Mohrbacher and K. Salama, "Elastic Nonlinearity in Metal-Matrix Composites," Res. NDE, Vol. 3, p. 159, 1991.
- S. Zannella, L. Jansak, D. Lee and K. Salama, "AC Losses of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ High Temperature Superconductors," Physica C Vol. 180, p. 373 ,1991.
- D. F. Lee, X. Chaud and K. Salama, "Transport Current Density in Bulk Oriented-Grained $\text{YBa}_2\text{Cu}_3\text{O}_x$ /Silver Composites," Physica C Vol. 181, p. 81 ,1991.
- A. Gurevich, H. Kupfer, B. Runtsh, R. Meier-Hirmer, D. Lee and K. Salama, "Transient Regimes of Flux Creep in High- T_c Superconductors," Phys. Rev. B. Vol. 44, p. 12090, 1991.
- J.C. Cohn, S.A. Wolf, V. Selvamanickam and K. Salama, "Normal-State Transport Properties of $\text{YBa}_2\text{Cu}_3\text{O}_x$: Conventional Metallic Picture," Proc of Univ. of Miami Workshop on Electronic Structure and Mechanisms of HTS, 1991 (in print).
- B. Grelsson and K. Salama, "Elastic Strength of Particle and fiber Reinforce Metal-Matrix Composites," Mechanical Behavior of Materials 6, N. Jon and T. Inoue eds., Vol. 3, p. 145, 1991.
- K. Salama and V. Selvamanickam, "Oriented Grain Growth in YBCO Superconductors," Supercond. Sci. and Technol Vol. 5, p. 585, 1992.
- K. Salama, X. Chaud and D.F. Lee, "High Critical Currents in YBCO/Ag Superconducting Composites," Proc. 7th US-Japan Workshop on High-Field Supercond. Mater., Wires and Conductors, Fukuoka, Japan, p. 231, 1992.

- K. Salama, D. F. Lee and X. Chaud, "Flux Pinning in Bulk Oriented-Grained $\text{YBa}_2\text{Cu}_3\text{O}_x/\text{Ag}$ Composites: Effects of Ag and Y_2BaCuO_5 Inclusions," Advances in Superconductivity IV, Hayakawa and Koshizuka Eds., p. 23, 1992.
- D.F. Lee, X. Chaud and K. Salama, "Effects of Silver and Y_2BaCuO_5 Inclusions on the Transport Current Density and its Anisotropy of Oriented $\text{YBa}_2\text{Cu}_3\text{O}_x/\text{Silver}$ Composites," Japanese Journal of Appl. Phys., Vol. 31, p. 2411, 1992.
- J. R. Hull, T. M. Mulcalf, K. Salama, V. Selvamanickam, B.P. Weinberger, L. Lynds, "Magnetic Levitation and Stiffness in Melt-Textured Y-Ba-Cu-O," J. Appl. Phys. Vol. 72, 2089, 1992.
- K. Salama and V. Selvamanickam, "Joining of High Current Y-Ba-Cu-O Superconductors," Appl. Phys. Lett. Vol. 60, p. 898, 1992.
- K. B. Alexander, A. Goyal, D. Kroeger, V. Selvamanickam and K. Salama, "The Microstructure within Domains of Melt-Processed $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Phys. Rev. B, Vol. 45, p. 5622, 1992.
- V. Selvamanickam, C. Partsinevelos, A. V. McGuire and K. Salama, "Control of Grain Alignment to Fabricate Long Y-Ba-Cu-O Superconductors with High Current Density," Appl. Phys. Lett. Vol. 60, p. 3313, 1992.
- J. L. Cohn, S. A. Wolf, T. A. Vanderah, V. Selvamanickam and K. Salama, "Lattice Thermal Conductivity of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$," Physica C, Vol. 192, p.435, 1992.
- V. Selvamanickam, C. Partsinevelos, A. V. McGuire and K. Salama, "Growth of Long YBCO Superconductors with High Current Density by a Modified Bridgman Method," Proc. ISTEC-MRS Conf. on Superconductivity, Honolulu, p. 265, 1992.
- J. Wosik, L. M. Xie, K. Chan, A. Samaan, J. C. Wolfe, V. Selvamanickam and K. Salama, "Effects of dc magnetic fields on the microwave properties of grain aligned YBCO Bulk Materials," Proc. TCSUH Workshop of HTS Materials, p. 181, 1992.
- P. C. Murthy, D. Rodgers, K. White and K. Salama, "Force Between YBCO Superconductors and a Permanent Magnet," Proc. TCSUH Workshop of HTS Materials, p. 464, 1992.
- V. Selvamanickam, C. Partsinevelos and K. Salama, "Influence of Processing Parameters on the microstructure of $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductor," Proc. TCSUH Workshop on HTS Material, p.264, 1992.
- D.W.A. Willen and K. Salama "A Method to Control Grain-Boundary Properties in Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductors," Physica C, 1992, Vol. 201, p.311.
- D. F. Lee, V. Selvamanickam and K. Salama, "Influence of Y_2BaCuO_5 particle size and content on the Transport Current Density of $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor," 1992 Physica C., Vol. 202, p. 83, 1992.
- K. Salama, V. Selvamanickam, and D. F. Lee, " Processing of Melt-Textured YBCO Superconductors to Enhance Critical Current," Proc. 5th U.S.-Japan Workshop on High T_C Superconductors, p. 90, 1992.
- D.F. Lee, X. Chaud and K. Salama, "Processing and Critical Current Density of Melt-Textured YBCO/Ag Composites," Proc. TCSUH Workshop on HTS Materials, p. 337, 1992.
- D. Rogers, K. White, V. Selvamanickam, A. McGuire and K. Salama, "Plastic Deformation of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Superconductor at Elevated Temperatures," Superconductor Science and Technology, Vol. 5, p. 640, 1992.

- H. Mohrbacher and K. Salama, "The Temperature Dependence of Elastic Nonlinearity in Metal-Matrix Composites," Research in Nondestructive Evaluation, Vol. 4, p. 139, 1992.
- J. Wosik, L.M. Xie, J. Hallbritter, R. Chau, A. Samaan, J.C. Wolfe, V. Selvamanickam and K. Salama, "Effect of Weak Links on the Surface Resistance of $\text{YBa}_2\text{Cu}_3\text{O}_x$ Bulk Material," Proceedings MRS Spring Meeting, p. 895, 1992.
- V. Selvamanickam, M. Mironova and K. Salama, "Enhancement of Critical Current Density on $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor by Mechanical Deformation," J. Materials Res., Vol. 8, p. 249, 1993.
- S. Zannella, L. Jansak, M. Majoros, V. Selvamanickam and K. Salama, "AC Energy Dissipation in High T_c Superconductors," Physica C, Vol. 205, p. 14, 1993.
- S. Zannella, L. Jansak, K. Salama and V. Selvamanickam, "50 H Self-Field Losses in Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Bars," Cryogenics, Vol. 33, p.31, 1993.
- V. Selvamanickam, M. Mironova, S. Son and K. Salama, "Flux Pinning by Dislocations in Deformed Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor," Physica C, Vol. 208, p. 238, 1993.
- H. Mohrbacher and K. Salama, "The Temperature Dependence of Third-Order Elastic Constants of Metal-Matrix Composites," Proc. QNDE, Vol. 12, 1992, p. 2091, 1993.
- P. Foltyn, K. Ravi-Chandar and K. Salama, "Study of Interfacial Stress in Metal-Matrix Composites Using Ultrasonic Velocity Measurements," Proc. QNDE, Vol. 12, p. 2009, 1993.
- M. Mironova, D.F. Lee and K. Salama, "TEM and Critical Current Density Studies of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ with Silver and Y_2BaCuO_5 Additions," Physica C. Vol. 211, p.188, 1993.
- T.L. Francalvilla, M. M. Miller, R.J. Soulen, Jr. V. Selvamanickam and K. Salama, "The Angular Dependence of the Critical Current Density of Textured YBaCuO ," IEEE Transactions on Applied Superconductivity, Vol. 3, p. 1487, 1993.
- S. Zanella, L. Jansak, M. Majors, K. Salama and J. Selvamanickam, "AC Energy Dissipation in High T_c Superconductors," Proc. of International Cryogenic Materials Conference, Kiev, Ukraine, 1992 (In Print)
- K. Salama, V. Selvamanickam and D. F. Lee, "Melt-Processing and Properties of Y-Ba-Cu-O," in Processing and Properties of High T_c Superconductors", S. Jin, Ed., World Scientific Publishing Co., NY, Ch. 4, p. 155, 1993.
- J. Wosik, L. M. Xie, R. Chau, A. Samaan, J. C. Wolfe, V. Selvamanickam and K. Salama, "Surface Resistance Measurements of Grain-Aligned $\text{YBa}_2\text{Cu}_3\text{O}_x$ Bulk in dc Magnetic Fields: Evidence of the Existence of Two Kinds of Weak Link," Physical Review B, Vol. 47, p. 8968, 1993.
- J. Wosik, L.M. Xie, J. Hallbritter, R. Chan, A. Samaan, J.C. Wolfe, V. Selvamanickam and K. Salama, "Measurement of Surface Resistance of Grain-Aligned Bulk Material as a Function of DC Magnetic Field; Weak Link Study," IEEE Transactions on Applied Superconductivity, Vol. 3, p. 1432, 1993.
- K. Salama, V. Selvamanickam and D.F. Lee, "Process-Induced Flux Pinning in Melt-Textured YBCO Superconductor," Physica C, vol. 209, p. 187, 1993.
- H. Kupfer, R. Kresse, R. Meier-Hirmer, K. Salama, D.F. Lee and V. Selvamanickam, "Investigation of Collective Creep in YBaCuO ," Physica C Vol. 209, p. 243, 1993.

- V. Selvamanickam, M. Mironova, S. Son, B.C. Meyer and K. Salama, "Formation and Phase Decomposition of Textured $\text{YBa}_2\text{Cu}_4\text{O}_8$ Superconductor," Physica C., Vol. 217 p. 113, 1993.
- M. Mironova, V. Selvamanickam, D. F. Lee and K. Salama, "TEM Studies of Dislocations in Deformed Melt-Textures $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," J. Mater. Res. Vol. 8, p. 2767, 1993.
- K. Salama, D.F. Lee and V. Lee and V. Selvamanickam, "Progress in Melt-Texturing of YBCO Superconductors," Proc. 1993 European Conf. on Appl. Superconductivity: Vol. I, H.C. Freyhardt, ed. (DGM Information-geellschaft mbH, Oberursel) p.261, 1993.
- M.D. Sumption, K. Salama, T.S. Luhman, M. Strasik and E. W. Collings, "Lower Critical Field Studies of Melt-Textured and Melt-Grown $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$," Adv. in Superconductivity IV, Fujita and Shiohara, eds., p. 597, 1994.
- D.F. Lee, M. Mironova, V. Selvamanicka, and K. Salama, "Structure and Defects at Y_2BaCuO_5 Interface in Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Interface Science I p. 381, 1994
- H. Kupfer, T. Wolfe, R. Kresse, R. Meire-Hirmaer, K. Salama, D.F. Lee and V. Selvamanickam, "Flux Creep and Fishtail in Melt-Textured and single Crystalline $\text{YBa}_2\text{Cu}_3\text{O}_7$," J. of Superconductivity, 7, p. 287, 1994.
- K. Salama and D.F. Lee, "Progress in Melt-Textured of $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor," Superconductor Sci. Tech. 7, p. 177, 1994.
- D.F. Lee, C.S. Partsinevelos, R. G. Presswood, Jr. and K. Salama, "Melt-Texturing of Referentially Aligned $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor by a Seeded Directional Solidification method," J. Appl. Phys. 76 p, 603, 1994.
- A.S. Parikh, B. Meyer and K. Salama, "A Method to Improve Grain Boundary Current Carrying Capability in Melt Textured YBCO," Superconductor Science and Technology, Vol. 7, p. 455, 1994.
- M. Nilsson-Melbin, A. Parikh and K. Salama, "I-V Characteristics of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7-8}$," Superconductors Containing Grain Boundaries, Physical C 223, p.19, 1994.
- Y.H. Zhang, V. Selvamanickam, D. F. Lee and K. Salama, "Critical Current Dependence on Deformation Kinetics in Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Japan J. Appl. Phys., 33, p. 3419, 1994 .
- M. Nilsson-Melbin and K. Salama, "Effect of Applied Magnetic field on the I-V Characteristics of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{7.5}$ Superconductors containing Grain Boundaries," Physica C, 227, p. 40, 1994.
- K. Salama, Y.H. Zhang, M. Mironova and D. F. Lee, "Flux Pinning Generated by High Temperature Deformation in YBCO," Proc. Sixth US-Japan Workshop on High T_c Superconductors, K. Salama, C. W. Chu, W. K. Chu eds., p. 221, 1994.
- H. Kupfer, S.N. Gordeev, W. John, R. Kresse, R. Meier-Hirmer, T. Wolf, A. A. Zhukow, K. Salama and D. Lee, "Phase Diagram of Flux Creep in Melt-Textured and Single Crystalline $\text{YBa}_2\text{Cu}_3\text{O}_{7.5}$," Phys. Rev. B, Vol. 50, p. 7016, 1994
- A. Satpathy, V. Selvamanickam, D.F. Lee, C. Partsinevelos and K. Salama, "Enhancement in Thermal Shock Resistance of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors by Hot Isostatic Pressing," Appl. Phys. Let., Vol. 65, p. 1958, 1994.
- A.A. Zhukov, H. Kupfer, S. N. Gordeev, W. John, T. Wolf, V.I. Voronkova, A. Erb, G. Muller-Vogt, H. Wahl, H.J. Bornerman, K. Salama and D. Lee, "Behavior of the Fish-Tail Effect in Single Crystalline and Melt Textured $\text{YBa}_2\text{Cu}_3\text{O}_y$ Samples," Proc. 7th International Workshop on Critical Currents in Superconductors, H. W. Weber ed., p. 229, 1995.

- K. Salama and D.F. Lee, "Melt-Texturing Processes of HTS," Advances in Science and Technology 8, P. Vincenzin ed., p. 419, 1995.
- S. Zannella, M. Majoros, V. Ottoboni, D.F. Lee and K. Salama, "AC Losses in Single Domain Y-123 Bar," Superconductivity and Superconducting Materials Technologies, P. Vincenzin ed., p. 173, 1995.
- K. Salama, D. F. Lee, R.G. Presswood, Jr., T.L. Francavilla, "Seeded Directional Solidification of YBCO Superconductors," Proc. HTSC-Materials and Mechanisms Conf., Grenoble, July 1994, In Press.
- M. Mironova, D.F. Lee, V. Selvamanickam and K. Salama, "TEM study of Twins in Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Phil Ma., Vol 71, p. 855, 1995.
- D. F. Lee, A. Satpathy, V. Selvamanickam and K. Salama, "Effect of Hot Isostatic Pressing on the Microstructure and Critical Current Density of Directional Solidified $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors," Superconductor Science and Technology, Vol. 8, p. 423, 1995.
- Y.H. Zhang, M. Mironova, D.F. Lee and K. Salama, "Evidence of Enhanced Flux Pinning by Dislocations in Deformed Textured $\text{Yba}_2\text{Cu}_3\text{O}_x$ Superconductor," Superconductor Science and Technology, Vol. 8, p.423, 1995.
- Y.H. Zhang, M. Mironova, D. F. Lee and K. Salama, Japanese Journal of Applied Physics, "Evidence of Enhanced Flux Pinning by Dislocations in Deformed Textured $\text{Y}_1\text{Ba}_2\text{Cu}_3\text{O}_x$," Japanese Journal of Appl. Phys., Vol. 34, p. 3077, 1995
- K. Salama, A.S. Parikh, M.N. Kunchur and D.K. Christan, "Processing and Properties of High J_c Grain Boundaries in Melt Textured YBCO," International Cryogenic Materials Conf., Critical State in Superconductors, K. Techikawa, K. Kitazawa, H. Maeda, T. Matsushita, eds., p. 58, 1995..
- D. F. Lee, R.G. Presswood, Jr., K. Salama, T.L. Francavilla, M. Eisterer, W. Weber and S. Zannella, "Processing and Properties of Seeded Directional Solidified YBCO Superconductors for High Current Applications," International Cryogenic Materials Conf., Critical State in Superconductors, K. Tachikawa, K. Kitazawa, H. Maeda, T. Matsushita, eds., p. 229, 1995.
- M. Mironova, A. S. Parikh, S. Sathyamurthy, I. Rusakova, and K. Salama, " TEM studies of Grain Boundaries in Polycrystalline High Current YBCO Superconductor," Proc. International Workshop on Superconductivity, P. 306, 1995.
- M.B. Field, A. Pashitski, A. Polyanskii, D. Larbalestier, A.S. Parikh and K. Salama, "Experimental Evidence for Electromagnetic Coupling homogeneity Along Grain Boundary Plane in High-Angle Melt-Textured YBCO Bicrystals," IEEE Trans. on Appl. Superconductivity, Vol. 5, p. 1631, 1995.
- H. A. Mook, P. Dai, G. Aeppli, T. E. Mason, N. E. Hecker, J. A. Harvey, T. Armstrong, K. Salama and D. F. Lee, "Recent Neutron Scattering Results on High Temperature Superconductors," Proc. International Neutron Scattering Conf., Physica B, Vol. 213, p. 43, 1995.
- M. N. Kunchur, D. K. Christen, C. E. Klabunde and K. Salama, "Exploring the Dissipative Regime of Superconductors For Practical Current-Lead Applications," Appl. Phys. Letters 67, p. 848, 1995.
- H. Kupfer, A. A. Zhukov, R. Kresse, R. Meier-Hirmer, W. John, T. Wolf, T. Matshushita, K. Kimura, K. Salama, "Comparison of Pinning Parameters Between Low T_c Superconductors and $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$," Phys. Rev. B, Vol. 52, p. 7684, 1995.
- K. Salama and D.F. Lee, "Melt Texturing Processes of HTS," Ceramics International, Vol. 22, p.341, 1996.

- P. Dai, H.A. Mook, G. Aeppli, F. Dogan, K. Salama and D. Lee, "Incommensurate One-Dimensional Fluctuations in $\text{YB}_2\text{Cu}_3\text{O}_{6.93}$," Phys. Rev Letts, Vol. 77, p. 370, 1996.
- M. Orrhede, R. Tolani and K. Salama, "Elastic constants and Thermal Expansion of Aluminum-SiC Metal Matrix Composites," Research in Nondestructive Evaluation, Vol. 8, p. 23, 1996.
- V. Selvamanickam, K. Pfaffenbach, R.S. Sokolowski, Y. Zhang and K. Salama, "Development of YBa-Cu-O Superconductors for Magnetic Bearings," Proc. Third Int. Symposium on Magnetic Suspension Technology, N.J. Groom and C.P. Britcher, eds., p. 251, 1996.
- S.P. Athur, V. Selvamanickam, U. Balachandran and K. Salama, "Study of Growth Kinetics in Melt Textured Y-123," J. Mat. Res., Vol 11, p. 2976, 1996.
- K. Salama, A.D. Parikh and L. Woolf, "High Rate Melt Texturing of 123 Superconductors," Appl. Phys. Letters, Vol 68, p. 1993, 1996.
- M.K. Mironova, G.Du, I.A. Rusakocva and K. Salama, "Transmission Election Microscopy Studies of Low-Angle Grain Boundary Interactions," Physica C, Vol. 271, p. 15, 1996.
- S. Sathymurthy, A. Parikh and K. Salama, "Processing of Polycrystalline HTS For High Current Transport Application," Physica C, Vol. 271, p. 349, 1996.
- M.B. Field, A. Polyanskii, A. Pashiyski, D.C. Larbalestier, A.S. Parikh and K. Salama, "Magneto-Optic Imaging of Melt-Textured $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ Bicrystals," Proc. 10th Anniversary HTS Workshop on Phys., Materials and Application, Houston, p. 405, 1996.
- K. Salama, A.S. Parikh and P. Putman, "A novel Approach to High Rate Melt-Texturing in 123 Superconductors," Proc. 10th Anniversary MTS Workshop on Phys., Materials and Application, Houston, p. 155, 1996.
- M. Mironova, G. Du, S. Sathymurthy, I. Rusakova and K. Salama, "TEM Study of Low-Angle Grain Boundaries in Polycrystalline YBCO," 10th Anniversary HTS Workshop on Phys., Materials. and Application, Houston, p. 179, 1996.
- H.A. Mook, P. Dai, F. Dogan, K. Salama, G. Aeppli and M.E. Mostoller, "Neutron Scattering Measurements on $\text{YBa}_2\text{Cu}_3\text{O}_{7.8}$," 10th Anniversary HTS Workshop on Phys., Materials. and Application, Houston, p. 345, 1996.
- S. Salib, M.K. Mironova, C. Vipulanandan and K. Salama, "Mechanical Properties and TEM Studies on BPSCCO-2223/Ag composite tapes," Superconductor Science and Technology, Vol 9, p. 1071, 1996.
- M.B. Field, D.C. Larbalestier, A. Parkih, K. Salama, "Critical Current Properties and the Nature of The Electromagnetic Coupling in Melt Textured $\text{YBa}_2\text{Cu}_3\text{O}_{6+x}$ Bicrystals of General Misorientation," Physica C, Vol. 280, p. 221, 1997.
- N. Mourik, Y.C. Chen, K. Salama, "Ultrasonic Characterization of the Elastic Anisotropy in Al-SiC and Al_2O_3 Metal Matrix Composites," Proceedings QNDE, Vol. 16B, p. 1143, 1997.
- R. Nunez, J. Wahnschaffe, K. Salama, "Ultrasonic Characterization of Fatigue Behavior in Metal Matrix Composites," Proceedings QNDE, Vol. 16.B, p.1151, 1997.
- Y. Chen and K. Salama, "Determination of Extrusion Direction Using Ultrasonic Measurements," Proceedings of 2nd Conference on NDE Applied to Process Control, p.153, 1997.
- D. Ponnusamy, Y. Coulter, M. Daugherty, K. Ravi-Chandar, K. Salama, "Processing of BSCCO Superconducting Rods for Current Leads," J. Applied Superconductivity, Vol. 4, p. 247, 1997.

- D. Ponnusamy, N. Tralshawal, J.R. Claycomb, J.H. Miller, Jr., K. Ravi-Chandar, K. Salama, "Processing and Characterization of High T_c Magnetic Shield and Flux Transformers," IEEE, Applied Superconductivity, Vol. 7, p. 1418, 1997.
- K. Salama, S. Sathyamurthy and A.S. Parikh", A Novel Method for Processing High T_c Superconducting Current Leads," Critical Currents in Superconductors for Practical Applications, L. Zhou, H.W. Weber, E.W. Collings eds., p.7, 1997.
- Y.H. Zhang, A Parikh, K. Salama, "Study of Superconducting Properties in Melt-Textured YBCO Levitators," IEEE, Applied Superconductivity, Vol. 7, p. 1418, 1997.
- Y.C. Chen and K. Salama, "Determination of Extrusion Direction Using Ultrasonic Measurements," Proc. 2nd Conf. on NDE Applied to Process Control of Composite Fabrication, St. Louis, MS., p. 153, 1997.
- K. Salama, S. Sathyamurthy, A.S. Parikh, "High Current Polycrystal YBCO Superconductor", Advances in Superconductivity, R. Pinto, S.K. Malik, A.K. Grover, P. Ayyub, eds., p. 140, 1998.
- N. Mourik, Y.C. Chen and K. Salama, "Nondestructive Determination of the Elastic Anisotropy in Aluminum-SiC and Al_2O_3 Metal Matrix Composites," Research in Nondestructive Evaluation, Vol. 2, p.1, 1999.
- M.B. Field, D.C. Larbalrstier, A. Parkih, K. Salama, "Critical Current Properties and the Nature of The Electromagnetic Coupling in Melt Textured $YBa_2Cu_3O_{6+x}$ Bicrystals of General Misorientation," Physica C, Vol. 280, p. 221, 1997.
- S. Sathyamurthy, A. Parikh and K. Salama, "Grain Boundary Studies in YBCO Processed by Liquid Phase Removal Method," Superconductor Science and Technology, Vol. 10, p. 651, 1997.
- M.C. Lin and K. Salama, "Fatigue Crack Growth in Niobium-Hydrogen Alloys," Met. Trans., Vol. 28A, p. 2059, 1997.
- S. Tirumala, D.F. Lee, D.M. Kroeger and K. Salama, "Thermo-Mechanical Processing and Reaction Kinetics of Bi-2223 Powder-In-Tube Tapes Made from Aerosol Precursor," Superconductor Science and Technology, Vol. 10, p. 686, 1997.
- S. Tirumala, D.F. Lee, D.M. Kroeger and K. Salama, " Effects of Stoichiometric Variation and Cooling Rate on the Phase Formation and Critical Current Density of Bi-2223 Powder-In-Tube Tapes Made from Aerosol Precursor," Superconductor Science and Technology, Vol II, p. 496, 1998.
- N.M. Mourik, E. Schneider and K. Salama, "Ultrasonic Characterization of Microstructural States in Aluminum Welds Depending on the Welding Parameters," 8th International Symposium on Nondestructive Characterization, 1997, In Press.
- K. Salama and S. Sathyamurthy, "Melt Texturing of YBCO for High Current Applications," Applied Superconductivity, Special Issue, YBCO Conductor Development for Large Scale Applications, p. 32, 1998.
- G. Du, M. Mironova, S. Sathyamurthy and K. Salama "An Investigation on High-angle Grain Boundaries in Melt-Textured $Yb_a_2Cu_3O_{6+x}$ Superconductors," Physica C, Vol. 306, p. 199, 1998.
- K. Zhang, Y.L. Yang, A.J. Jacobson and K. Salama, "Effect of Microstructure on Oxygen Permeation in Some Perovskite Oxides," Proceedings of Symposium on Materials for Electrochemical Energy and Conversion II-Batteries, Capacitors and Fuel Cells, 1999, In Press.

- K. Salama, S. Sathyamurthy, G. Du and M. Mironova, "Processing and Characterization of YBCO Grain Boundaries Obtained by the Liquid Phase Removal Method," J. Materials Science and Engineering, B, Vol. 53, p. 32, 1998.
- S. Salib, A.N. Iyer, C. Vipulanandan, K. Salama and U. Balachandran, "Electromechanical Characterization of Silver-Clad BSCCO Tapes," Appl. Supercond. 6, p. 1, 1998.
- K. Salama and S. Sathyamurthy, "Recent Development in Melt Texturing of 123 Compounds," Supercond. Sci. Technol., Vol. 11, pp. 954-958, 1998.
- S. Sathyamurthy and K. Salama, "Processing of $Y_1Ba_2Cu_3O_x$ Films by Solution Technique Using Metal Organic Composition," J. Supercond., Vol. 11, no. 5 (1998), In Press.
- S.V. Stolbov, M.K. Mironova, and K. Salama, "Microscopic Description of Grain Boundaries in Superconducting Copper Oxides, I. Electron Structure in the Vicinity of Grain Boundaries," submitted to Phys. Rev. B, October 1998.
- S.V. Stolbov, M.K. Mironova, and K. Salama, "Microscopic Description of Grain Boundaries in Superconducting Copper Oxides, II. Method to Determine Superconducting Properties," submitted to Phys. Rev. B, October 1998.
- M. Mironova, G. Du, S. Sathyamurthy and K. Salama, "Determination of High-Angle Grain Boundary Misorientations in Melt-Textured Y-Ba-Cu-O Using Transmission Electron Microscopy Studies of Intragrain Structure," Phil. Mag. A (1999), In Press.
- G. Du, M. Mironova, S. Sathyamurthy and K. Salama, "An Investigation on High-Angle Grain Boundaries in Melt-Textured $Yba_2Cu_3O_{6+x}$ Superconductors," Physica C, Vol. 306, pp. 199-212, 1998.
- A.N. Iyer, M. Mironova, S. Stolbov, C. Vipulanandan, K. Salama and U. Balachandran, "Fabrication and Electromechanical Characterization of Silver-Clad BSCCO Tapes," J. Supercond., Vol. 11, no. 5, pp. 533-543, 1998.
- S.P. Athur, P. Putman, U. Balachandran and K. Salama, "Phase Formation and Melt-Processing of Yb-123," Balachandran and K. Salama, J. Supercond., Vol. 11, No. 5, 1998.
- A.N. Iyer, S. Salib, C. Vipulanandan, U. Balachandran and K. Salama, "Phase Development and Critical Current Density of Bi-2223 Tapes Fabricated by Groove Rolling, " Supercond. Sci. Technol., Vol. 12, p. 1999.
- S.P. Tirumala, D.F. Lee, D.M. Kroeger and K. Salama, "Effects of Stoichiometric Variation and Cooling Rate on the Phase Formation and Critical Current Density of Bi-2223 Powder-In-Tube Tapes Made from Aerosol Precursor, " Supercond. Sci. Technol., Vol. 11, no. 5, pp.946-504, 1998.
- S.P. Tirumala, D.F. Lee, D.M. Kroeger and K. Salama, "Melt Texturing of YBCO for High Current Applications, " Appl. Supercond., Vol. 53, p. 32, 1998.
- K. Zhang, Y.L. Yang, D. Ponnusamny, A.J. Jacobson and K. Salama, "Effects of Microstructure on Oxygen Permeation in $SrCo_{0.8}Fe_{0.2}O_{3-\delta}$, " J. Mat. Sci., In Press 1999.
- S. Sathyamurthy and K. Salama, "Processing of Y123 Coated Conductors using Metal Organic Decomposition, " submitted to IEEE Trans. On Appl. Supercond., 1998.
- M.K. Mironova, G. Du and K. Salama, "Measurements of Misorientaion Angles over a Large Distance in Strongly Coupled Grain Boundaries," submitted to IEEE Trans. Appl. Supercond., 1998.

- M.K. Mironova, S. Stolbov, G. Du and K. Salama, "Contribution of Grain Boundary Planes to Superconducting Coupling in YBCO," submitted to IEEE Trans. Appl. Supercond., 1998.
- K. Salama, S. Sathyamurthy, S.P. Athur and P. Putman, "Recent Developments in Melt Texturing of 123 Compounds," submitted to the Proc. Of the 9th Int. Conf. on Mod. Mater. & Technol., (CIMTEC'98), Florence, Italy, June 14-19, 1998.
- S. Sathyamurthy and K. Salama, "Processing of Y123 coated conductors using metal organic decomposition" IEEE Trans. Appl. Supercond., vol. 9, pp. 1971 (1999).
- S. V. Stolbov, M. K. Mironova, and K. Salama, "Microscopic Origins of the Grain Boundary Effects on the Critical Current in Superconducting Copper Oxides," Supercond. Sci. Technol., vol. 12, pp. 1071 1999.
- M. Mironova, G. Du, S. Sathyamurthy, and K. Salama, "Determination of High-Angle Grain Boundary Misorientations in Melt-Textured YBCO Using Transmission Electron Microscopy Studies of Intragrainstructure," Phil. Mag. A, vol. 79, pp. 1079 (1999).
- M. K. Mironova, G. P. Du, and K. Salama, "Measurements of Misorientation Angles Over a Large Distance in Strongly Coupled Grain Boundaries," IEEE Trans. On Applied Superconductivity, vol. 9, no. 2, pp. 1630 (1999).
- A.N. Iyer, W. Lu, M.K. Mironova, C. Vipulanandan, U. Balachandran and K. Salama, "Current Transport and Microstructural Development in BSCCO Tapes and Joints Fabricated By Groove Rolling", Superconductor Science and Technology, Vol 12, p. 1, 1999.
- A. N. Iyer, S. Salib, C. Vipulanandan, U. Balachandran, and K. Salama "Phase Development and Critical Current Density of Bi-2223 Tapes Fabricated by Groove Rolling," Supercond. Sci. Technol., vol. 12, pp. 436-441, (1999).
- M. K. Mironova, S. V. Stolbov, G. P. Du, and K. Salama, "Contribution of Grain Boundary Planes to Superconducting Coupling in YBCO," IEEE Trans. On Appl. Supercond., vol. 9, no. 2, pp. 1626 (1999).
- S. Athur, U. Balachandran, and K. Salama, "Application of Melt-texturing to HTS Conductors," Advances in Cryogenic Engineering, Vol 46B, p. 887, 2000.
- G. Majkic, L. Wheeler, and K. Salama, "Creep of Polycrystalline $\text{SrCo}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$," Acta. Materialia 48, p. 1907, 2000.
- W. Lo and K. Salama, "Orientation Control and Transport Properties of c-oriented NdBCO-Ag Large Grains Grown Using a Simple Processing System," Supercond. Sci. Technol., Vol. 13, p. 725, 2000.
- W. Lo and K. Salama, "Optimization of Seeding Conditions for the Fabrication of c-axis Oriented NdBCO-Ag large Grains," J. Mater. Res., Vol. 15, p. 2336, 2000.
- P.T. Putman and K. Salama, "Attractive Force Between a YBCO Ring and Rod", Physica C, Vol. 341-348, p. 2461, 2000.
- S.P. Athur, U. Balachandran and K. Salama, "Melt Processing of Yb-123 Tapes", Physica C, Vol. 341-348, p. 2421, 2000.
- K. Thangaraj, Y.C. Chen & K. Salama, "Fabrication of Porous NITI SHAPE Memory Alloy By Elemental Powder Sintering", ASME, Accepted.
- W. Lo and K. Salama, "Growth and Properties of NdBCO-Ag Large Grains for Device Applications", Physica C, Vol. 341-348, p. 2336, 2000.

- K. Thangaraj, A.N. Iyer, L. Zhang, K. Salama, "Heat Treatment Studies on Bi-2212/Ag Tapes Fabricated Using a PIT Technique", *Superconductor Science and Technology*, Vol. 13; p. 1035, 2000.
- S. Sathyamurthy and K. Salama, "Application of Metal Organic Decomposition Techniques for the Deposition of Buffer Layers and Y123 for Coated-Conductor-Fabrication", *Physica C*, Vol. 329, p. 58, 2000.
- S. Sathyamurthy and K. Salama, "Chemical Solution Deposition of Highly Oriented Strontium Titanate Buffer Layers for Coated Conductor", *Superconductor Science and Technology*, Rapid Communication, Vol. 13, L1-L3, 2000.
- S. Sathyamurthy and K. Salama, "Fabrication of Y123 Coated Conductors Using Metal Organic Decomposition Process", *Physica C*, Vol. 341-348, p. 2479, 2000.
- L. Zhang, M. Mironova and K. Salama, "Study of Ag/BSCCO Interface in Ag-Sheated Multifilament Bi-2223 Tapes", *Physica C*, Vol. 341-348, p. 1471, 2000.
- K. Salama, M. Mironova, S. Stolbov and S. Sathyamurthy, "Grain Boundaries in Bulk YBCO", *Physica C*, Vol. 341-348, p. 1401, 2000.
- K. Salama, "Recent Developments in Melt Textured Superconductors", *J. of Metals* Vol 52, p. 17, 2000.
- L. Zhang, M. Mironova and K. Salama, "The Alignment of BC(Pb)-Sr-Ca-Cu-O Near the Ag/Bi9Pb)-Sr-Ca-Cu-O Interface in Ag-Sheathed Multifilamentary Bi(ph)2223 Tapes", *Phil. Mag. Letters*, Vol. 81, p. 170, 2001..
- K. Thangaraj, Y.C. Chen and K. Salama, "Fabrication of Porous NITI Shape Memory Alloy by Elemental Powder Sintering", *ASMW Proceedings of Adaptive Structures and Materials Systems*, Vol. 60, p. 59, 2000.
- W. Lo, X.Y. Zhou, T.B. Tang and K. Salama, "Enhancement in the Trapped Fields of YBCO at 77 K by Cation Doping", *Physica C*, Vol. 354, p. 152, 2001.
- Y.X. Zhou, W. Lo, T.B. Tang and K. Salama, "Enhancing the Properties of YBCO by Non-Magnetic Cation Dopings", *IEEE Trans. Appl. Superconductivity*, Vol. 11, p.3700, 2001.
- C. George, G. Majkic, W. Lo and K. Salama, "Processing of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$ Oxygen Membranes", *Mat. Sci. Eng. B*, Vol. 83, p. 198, 2001.
- S. Sathyamurthy and K. Salama, "Chemical Cleaning Treatment of Textured Nickel For the Deposition of Epitaxial Thin Films", *Superconductor Science and Technology*, Vol. 14, p. 643, 2001.
- K. Salama, K. Thangaraj, S.P. Athur and A.N. Iyer, "Studies on Bi-2212 and Yb-123 Tapes Fabricated by PIT Technique", *Proc. Superconducting Materials for High Energy Colliders*, World Scientific Publisher, p. 160, 2001.
- A. Bradley, W. Lo, M. Mironova, N.H. Babu, D.A. Cardwell, A.M. Campbell and K. Salama, "Microstructure and Growth of Joins in Melt Textured YBCO", *J. Mat. Res.*, Vol. 16, p. 2298-2305, 2001.
- J.A. Lobera-Serrano, J.R. Claycomb, J.H. Miller and K. Salama, "Hybrid Double-D Sheet-Inducer for SQUID-Based NDT", *IEEE Trans. Appl. Superconductivity*, Vol. 11, p. 1283-1286, 2001.
- S. Athur, V. Balachandran and K. Salama, "Melt Processing of Yb-123 Tapes", *Physica C*, Vol. 357, p.11, 2001.
- S. Sathyamurthy and K. Salama, "Application of Solution Deposition to Fabricate YBCO Coated Conductors", *IEEE Trans. Appl. Superconductivity*, Vol. 11, p. 2935, 2001.

- K. Salama, S.P. Athur and U. Balachandran, "Texturing of REBCO Using Temperature Gradient", Physica C, Vol. 357, p. 11, 2001.
- K. Wang, R.R. Reeber and K.Salama, "Fourth-Order Elastic Constants of Magnesium Oxide", Phys. Stat. Sol., Vol. 228, p. 837-845, 2001.
- G. Majkic, M. Mironova and K. Salma, "A TEM Study of Polycrystalline $\text{SrCo}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ Crept in Diffusion to Power Law Transition Regime", Phil Mag. A, Vol. 81, p.2675, 2001.
- G. Majkic, L.T. Wheeler and K. Salama, "High-Temperature Deformation of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$ Mixed Ionic-Electronic Conductor", Solid State Ionics, Vol. 146, p. 393, 2002.
- W. A. C. Passos, P. N. Lisboa-Filho, R. de Andrade, Jr. , K. Salama and W. A. Ortiz, "Compiling some well-known anomalies of granular superconductors and recognizing their innate dependence on sample preparation and processing ", Physica B, Vol. 320, p. 330, 2002.
- S. Sathyamurthy and K. Salama, "Processing Aspects of MOD Strontium Titanate Buffer Layers for Coated Conductor Applications", Physica C, Vol. 377, pp. 208-216, 2002.
- P.T. Putman and K. Salama, "Energy Conversion in Electromagnetic Launchers Containing Monolithic $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ ", Advances in Cryogenic Engineering, Vol. 46 2002.
- P.T. Putman and K. Salama, "A Model for Calculating Magnetic Forces Between Monolithic $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ Magnets", IEEE Transactions on Applied Superconductivity, Vol. 12, pp. 1818, V1822, 2002.
- Y.X. Zhou, W. Lo, T.B. Tang and K. Salama, "Enhancement in transport properties of seeded melt-textured YBCO by Cu-site doping", Superconductor Science and Technology, Vol. 15, pp. 722-726, 2002.
- H. Fang, S. Padmanabhan, Y.X. Zhou, and K. Salama, "High critical current density in iron-clad MgB_2 tapes", Applied Physics Letters, Vol. 82, p. 4113, June 2003.
- Y.X. Zhou, S Bhuiyan, S Scruggs, H Fang, M Mironova and K Salama," Strontium titanate buffer layers deposited on rolled Ni substrates with metal organic deposition," Supercond. Sci. Technol., Vol. 16, p. 901, August 2003.
- Y.X. Zhou, H. Fang, U. Balachandran, and K. Salama, "Enhancement of superconducting properties of textured YBCO using double seeded technique," IEEE Trans. Appl. Superconductivity, Vol. 13, p. 3072, June 2003.
- Y.X. Zhou, T. Rizwan, and K. Salama, "Growth of Cube-Textured Nickel Substrates for HTS Coated Conductors," IEEE Trans. Appl. Superconductivity, Vol. 13, p. 2703, June 2003.
- P.T. Putman and K. Salama, "Optimization of Energy Conversion in Monolithic Superconducting Magnets," IEEE Trans. Appl. Superconductivity, Vol. 13, p. 2146, June 2003.
- H. Fang, J.R. Claycomb, Y.X. Zhou, P.T. Putman, S. Padmanabhan, J.H. Miller Jr., K. Ravi-Chandar, and K. Salama, "Melt-Textured YBCO Superconducting Tube for Magnetic Shielding." IEEE Trans. Appl. Superconductivity, Vol. 13, p. 3103, June 2003.
- H. Fang, S. Padmanabhan, Y.X. Zhou, P.T. Putman, and K. Salama, "High J_c in Iron-Clad MgB_2 Tape," IEEE Trans. Appl. Superconductivity, Vol. 13, p. 3207, June 2003.
- V. Bhosle, E.G. Baburaj, M. Miranova, and K. Salama, "Dehydrogenation of Nanocrystalline TiH_2 ," Materials Science & Engineering A, Vol. 356, p. 190, August 2003.

- Y.X. Zhou, S. Bhuiyan, S. Scruggs, H. Fang and K. Salama, "Role of Mechanical Deformation in Texturing of Coated Conductor Composites", *Supercond. Sci. Technol.* Vol. 16, p. 1077, September 2003.
- H. Fang, Y.X. Zhou, K. Ravi-Chandar, and K. Salama, "On the study of the liquid infiltration and seeded growth process", *Supercond. Sci. Technol.*, Vol. 17, p. 269, 2004.
- G. Majkic, L.T. Wheeler and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$; 1. - Creep In Controlled Oxygen Atmosphere", *Solid State Ionics*, Vol. 164, p. 137, November 2003.
- G. Majkic, M. Mironova, L.T. Wheeler and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$; 2. - Structural, Elemental and Chemical Analysis", *Solid State Ionics*, Vol. 167, p. 243, 2004.
- G. Majkic, A.J. Jacobson and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $\text{La}_{0.2}\text{Sr}_{0.8}\text{Fe}_{0.8}\text{Cr}_{0.2}\text{O}_{3-\delta}$; 3. - Defect Chemistry Based Modeling", *Solid State Ionics*, Vol. 167, p. 255, 2004.
- Y.X. Zhou, S. Bhuiyan, H. Fang and K. Salama, "Chemically Coated Buffer Layers Deposited on Rolled Ni Substrates for HTS Coated Conductors", In Press, *Ceramic Transactions*, 2004.
- Y.X. Zhou, H. Fang, Balu Balachandran and K. Salama, "New Seeding Method for Texturing Y-Ba-Cu-O Bulk Superconductor: Multiple Seeded Melt Growth", In Press, *Ceramic Transactions*, 2004.
- H. Fang, S. Padmanabhan, Y.X. Zhou, P.T. Putman, and K. Salama, "High transport properties in iron-clad MgB_2 wires and tapes", In Press, *Ceramic Transactions*, 2004.
- H. Fang, Y.Y. Xue, Y.X. Zhou, A. Baikalov, and K. Salama, "Densification of MgB_2 cores in iron-clad tapes", *Superconductor Science and Technology*, Vol. 17, 2004, L27.
- H. Fang, P.T. Putman, S. Padmanabhan, Y.X. Zhou, and K. Salama, "Transport critical current on Fe-sheathed MgB_2 solenoids", *Superconductor Science and Technology*, Vol. 17, p. 717, 2004.
- Y.X. Zhou, R. Naguib, H. Fang and K. Salama, "Development of Cube-Textured Ni-W alloy Tapes Using Powder Metallurgy Along with High Energy Ball Milling for HTS Coated Conductors", *Supercond. Sci. & Technol.* Vol. 17, p. 947, 2004.
- P.T. Putman, Y.X. Zhou, T. Robertson and K. Salama, "Superconductor Permanent Magnets for Advanced Propulsion Applications," submitted to Space Technology Applications International Forum 2005 Proceedings (American Institute of Physics) June, 2004.
- P. Putman, Y.X. Zhou, K. Salama, T. Robertson, and D. Bond, "Superconductor permanent magnets for advanced propulsion applications," to appear in Proceedings of the Space Technology and Applications International Forum (STAIF 2005), Albuquerque, NM, American Institute of Physics Press.
- P. Putman, Y.X. Zhou, H. Fang, and K. Salama, "A linear motor configuration for use with persistent current magnets," submitted to IEEE Transactions on Applied Superconductivity, Oct. 2004.
- H. Fang, P. Gijavanekar, Y. X. Zhou, P. T. Putman, and K. Salama, "High Critical Current of Cu-Sheathed MgB_2 Wire at 20 K", *IEEE Transactions on Applied Superconductivity*, Vol. 15, p. 3215, 2005.
- H. Fang, P. Gijavanekar, Y. X. Zhou, P. T. Putman, and K. Salama, "Development of Fe-Sheathed MgB_2 Wires and Tapes for Electric Power Applications", *IEEE Transactions on Applied Superconductivity*, Vol. 15, p. 3200, 2005.
- P.T. Putman, Y.X. Zhou, H. Fang, A. Klawitter, and K. Salama, "Application of melt-textured YBCO to

electromagnetic launchers," *Superconductor Science and Technology*, Vol. 18, p. S6, 2005.

Y.X.Zhou, L. Sun, X. Chen, P.T.Putman, H. Fang and K.Salama, "The Manufacturing of Electroplated Ni Layer on Textured Cu Substrate for Cu-based HTS Coated Conductors", *Supercond. Sci. & Technol.*, Vol. 18, p.107, 2005.

K Salama, Y X Zhou, M Hanna, M Alessandrini, P T Putman and H Fang, "Electromechanical properties of superconducting MgB₂ wire", *Supercond. Sci. & Technol.* Vol. 18, p.S369, 2005.

Q.Y. Hu., R.T. Lu, and Y.L Guo, Y. X. Zhou. and K. Salama, G. Li, X.T. Zhu and Y. Zhao, "Twenty Centimeter long Coated Conductors Prepared Using Thermal Co-evaporation and Its Microstructures", *Journal of Low Temperature Physics*, Vol. 27, p. 774, 2005.

Y.X. Zhou, X.Zhang, H. Fang, P.T. Putman and K. Salama, "Development of Single Solution Buffer Layers on Textured Ni Substrate for HTS Coated Conductors" *IEEE, Transactions on Applied Superconductivity*, vol. 15, p. 2711, 2005.

M.S. Bhuiyan, M. Paranthaman, S. Kang, D.F. Lee and K. Salama, "Growth of epitaxial Y₂O₃ buffer layers on biaxially textured Ni-W substrates for YBCO coated conductors by MOD approach", *Physica C*, Vol. 422, p. 95, 2005.

M. Paranthaman, M.S. Bhuiyan, S. Sathyamurthy, H.Y. Zhai, A. Goyal and K. Salama, "Epitaxial growth of solution-based rare-earth niobate, RE₃NbO₇, films on biaxially textured Ni-W substrates", *Journal of Materials Research*, Vol. 20, p. 6, 2005.

M.S. Bhuiyan, M. Paranthaman, S. Sathyamurthy, A. Goyal and K. Salama, "Growth of rare-earth niobate-based pyrochlores on textured Ni-W substrates with ionic radii dependency", *Journal of Materials Research*, Vol. 20, p. 904, 2005.

M. Murakami, D. Cardwell, K. Salama, G. Krabbes, T. Habisreuther and W. Gawalek, "PASREG 2003: International Workshop on Processing and Applications of Superconducting (RE)BCO large grain materials", *Supercond. Sci & Technol.*, Vol. 18, Special Issue SI, 2005.

Invited Paper: K. Salama, G. Majkic and U. Balachandran, "Review: Stress-induced diffusion and cation defect chemistry studies of perovskites", *Defect and Diffusion Forum*, Vol. 242-244, p. 43, 2005.

G. Majkic, U. (Balu) Balachandran and K. Salama, "Bending Creep of 3Y-TZP/50% vol. Pd Cermet Membranes Subjected to Oxygen Partial Pressure Gradients", *Solid State Ionics*, submitted, 2005.

G. Majkic, U. Balachandran and K. Salama, "The Role of Oxygen Partial Pressure Gradients on Stress-Induced Diffusion of La_{0.2}Sr_{0.8}Fe_{0.8}Cr_{0.2}O_{3-δ} Membranes", *Solid State Ionics*, submitted, 2005.

G. Majkic, S. Karajagi, U. Balachandran and K. Salama "The Effect of Hydrogen Partial Pressure on Uniaxial Creep of 3Y-TZP/50% vol. Pd Cermet Membranes", *Journal of the Electrochemical Society*, accepted, 2006.

Liang, G; Fang, H; Hanna, M; Yen, F; Lv, B; Alessandrini, M; Keith, S; Hoyt, C; Tang, Z; Salama, K. 2006. Development of Ti-sheathed MgB₂ wires with high critical current density. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (11): 1146-1151.

Hanna, A; Fang, H; Zhou, YX; Alessandrini, A; Putman, PT; Salama, K. 2007. Mechanical properties of superconducting MgB₂ wire. *JOURNAL OF MATERIALS PROCESSING TECHNOLOGY* 181 (1-3): 44-47.

Scruggs, SJ; Putman, PT; Fang, H; Alessandrini, M; Salama, K. 2006. Growth techniques for monolithic YBCO solenoidal magnets. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS* 445: 312-316, Sp. Iss. SI.

Liang, G; Tang, Z; Fang, H; Katz, D; Salama, K. 2006. Synthesis and X-ray diffraction pattern for MgCu₂. *JOURNAL OF ALLOYS AND COMPOUNDS* 422 (1-2): 73-77.

Liang, G; Fang, H; Katz, D; Tang, Z; Salama, K. 2006. Phase formation in Cu-sheathed MgB₂ wires. *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS* 442 (2): 113-123.

Li, F; Vipulanandan, C; Zhou, YX; Salama, K. 2006. Nanoscale Y₂BaCuO₅ particles for producing melt-textured YBCO large grains. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (6): 589-595.

Scruggs, SJ; T Putman, P; Zhou, YX; Fang, H; Salama, K. 2006. Hot seeding using large Y-123 seeds. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (7): S451-S454, Sp. Iss. SI.

Zhou, YX; Scruggs, S; Salama, K. 2006. Effects of ionic doping on superconducting properties of melt textured YBa₂(Cu_{1-x}M_x)(₃)O_{7-delta} (M = Co, Ni, Zn or Ga) large grains. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (7): S556-S561, Sp. Iss. SI.

Zeng, JM; Ignatiev, A; Zhou, YX; Salama, K. 2006. A single oxide buffer layer on a cube-textured Ni substrate for the development of YBCO coated conductors by photo-assisted MOCVD. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (8): 772-776.

Bhuiyan, MS; Paranthaman, M; Salama, K. 2006. Solution-derived textured oxide thin films - a review. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (2): R1-R21.

Alessandrini, M; Fang, H; Hanna, M; Putman, P; Zhou, YX; Salama, K. 2006. High critical current of Ti-sheathed MgB₂ wires for AC and weight-critical applications. *SUPERCONDUCTOR SCIENCE & TECHNOLOGY* 19 (1): 129-132.

G. Majkic, N. Chennoufi, Y.C. Chen and K. Salama, "Synthesis of NiTi by Low Electro-Thermal Loss Spark Plasma Sintering", *Metallurgical and Materials Transactions A*, submitted, 2006.

Nonreferred Journals:

K. Salama, P.L. Donoho, F.T. , "Research on Rare-Earth Metals and Compounds and Development of Applications Based on Their Magnetic Properties," Semi-annual Technical Report covering research Supported by Advanced Research Projects Agency, U.S. Department of Defense, Contract No. DAAH01-71-C-0258, June 1971.

K. Salama, P.L. Donoho, F.R. Brotzen and L.V. Benningfield, Jr., "Research on Rare-Earth Metals and Compounds and Development of Applications Based on their Magnetic Properties," Final Technical Report - ARPA Contract No. DAAH01-71-C-0259, December 1971.

K. Salama, F.R. Brotzen, P.L. Donoho and L.V. Benningfield, Jr., "Magnetic and Magnetoelastic Properties of Rare-Earth Metals and Compounds," Semi-annual Technical Report covering research supported by Advanced Projects Agency, U.S. Department of Defense, Contract Number DAAH01-72-0285, June 1972.

K. Salama, F.R. Brotzen and P.L. Donoho, "The Elastic Constants of Terbium and Holmium," *Bulletin, American Phys. Soc.*, Series II, Vol. 17, 248, 1972.

K. Salama, P.L. Donoho and F.R. Brotzen, "Magnetoelastic Coupling in Terbium," *Bulletin, American Phys. Soc.*, Series II, Vol. 18, 469, 1973.

- K. Salama, P.L. Donoho and F.R. Brotzen, "Magnetoelastic Coupling in Terbium," Bulletin, American Phys. Soc., Series II, Vol. 18, 469, 1973.
- W.L. Stewart, J.M. Roberts, G. Alexandropolos and K. Salama, "Influence of Hydrogen on the Elastic Constants of Tantalum Single Crystals." Bulletin, American Phys. Soc., Series II, Vol. 21, 409, 1976.
- Lamerand, R.K., and K. Salama, "Use of Ultrasound in the Prediction of Fatigue Life," Journal of Acoustical Society of America, Vol. 63, 574, 1978.
- K. Salama, "Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses in Steels," EPRI NDE Program, Progress in 1980.
- K. Salama, "Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses in Steels," EPRI NDE Program, Progress in 1981.
- K. Salama, "Nondestructive Evaluation of Bulk Residual Stresses Using Ultrasonic Techniques," Proc. First Workshop on NDE of Titanium Alloys, p. 99, 1982.
- K. Salama, "Nondestructive Measurement of Bulk Residual Stresses," Annual Report, Office of Naval Research, Contract N00014-82-K-0496, Oct. 1983.
- K. Salama, "Development of an Ultrasonic Method for Nondestructive Evaluation of Residual Stresses in Steels," Final Report, Electric Power Research Institute, Contract T107-2, Nov. 1983.
- K. Salama, "Nondestructive Measurement of Bulk Residual Stresses", Final Report, ONR, Contract N00014-82-K-0496, Oct. 1984.
- K. Salama, "Nondestructive Evaluation of Residual Stress in Low-Carbon Steel", Final Report, Grant, NAG-1-388, Oct. 1984.
- K. Salama, "Nondestructive Evaluation of Residual Stress in Low-Carbon Steel", NASA Langley, Final Report, Grant NAG-1-388, October, 1985.
- K. Salama, "Nondestructive Ultrasonic Characterization of Engineering Materials", Final Report, Grant NCC1-88, Nov. 1985.
- K. Salama, "Fretting Wear of Metals at Ultrasonic Frequency", Final Report, Grant INT-8212438, Nov. 1985.
- K. Salama, "Nondestructive Ultrasonic Characterization of Two-Phase Materials", NASA Langley, Final Report, Grant NCC1-88, January 1987.
- M. Orrhede, R. Tolani and K. Salama, "Elastic Constants and Thermal Expansion of Aluminum-SiC Metal Matrix Composites", Research in Nondestructive Evaluation, 1995.
- K. Zhang, M. Mironova, Y. L. Yang, A. J. Jacobson, and K. Salama, "Effects of Microstructure on the Electronic Conductivity in $\text{SrCo}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$," Proc. Of the 1999 MRS Spring Meeting, San Francisco, CA, April 5-9, 1999.
- G. Majkic, L. Wheeler, K. Salama, "Characterization of Creep Behavior of $\text{SrCo}_{0.8}\text{Fe}_{0.2}\text{O}_{3-x}$ ", Materials Research Society Spring Meeting 1999 April 5-9, San Francisco, CA.
- K. Salama, K. Thangaraj, S. Athur, and A. N. Iyer, "Studies on Bi-2212 and Yb-123 Tapes Fabricated by PIT Technique," Proceedings INFN Workshop on Superconducting Materials For High Energy Colliders, 1999, Oct 19-25, Erice, Italy.

S. V. Stolbov, M. K. Mironova, and K. Salama, "Origins of the Grain Boundary Effect on the Critical Current in Superconducting Copper Oxides," 1999 July 7-10, Madison, WI.

K. Salama, S. Sathyamurthy and M. Mironova, "Microstructural Analysis of the Compatibility of Solution Deposited Buffer Layers with the TFA Process for YBCO", Proc. Of the 2000 MRS Fall Meeting, Boston, MA, Nov. 27 – Dec. 1, 2000.

Y.X. Zhou, W. Lo, B. Tong and K. Salama, "High Levitation Force and Trapped Field of Large Grain YBCO at 77K by Ga Doping", Proc. Of the 2000 MRS Fall Meeting, Boston, MA, Nov. 27 – Dec. 1, 2000.

Y.X. Zhou, H. Fang, Balu Balachandran and K. Salama, "New Seeding Method for Texturing Y-Ba-Cu-O Bulk Superconductor: Multiple Seeded Melt Growth," *Proceedings of Am. Ceram. Soc.*, August 2003.

Y.X. Zhou, S. Bhuiyan, H. Fang, and K. Salama, "Chemically Coated Buffer Layers Deposited on Rolled Ni Substrates for HTS Coated Conductors," *Proceedings of Am. Ceram. Soc.*, August 2003.

H. Fang, S. Padmanabhan, Y.X. Zhou, P.T. Putman, and K. Salama, "High transport properties in iron-clad MgB₂ wires and tapes," *Proceedings of Am. Ceram. Soc.*, August 2003.

G. Majkic and K. Salama, "Anomalous Stress-Induced Diffusion in Perovskites: Defect Chemistry and Potential Applications", Fuel Cell Seminar Proceedings, San Antonio, TX, November 2-5, 2004.

Y. X. Zhou, R. A. Naguib, S. Ghalsasi and K. Salama, "Development of metallic textured substrates for coated conductors using powder metallurgy", Proceeding of International Workshop on Coated Conductors Applications, CCA2005.

Y. X. Zhou, S. Ghalsasi, S. Scruggs, X. Zhang, H. Fang, P. T. Putman and K. Salama, "Simplify Coated Conductors Architecture by Exploring Multi-Functional Buffer Materials using MOD Process", Proceeding of International Workshop on Coated Conductors Applications-CCA2005.

Y. X. Zhou, S. Ghalsasi, K. Salama, Z. J. Tang, "Development of Textured Ni-9at% Alloy Substrates for Second Generation Superconducting Tapes", Applied Superconductivity Conference, August 27th – September 1st, Seattle, WA, 2006.

S.V. Ghalsasi, Y.X. Zhou, K. Salama, I. Rusakova and Y.Y. Sun, "Enhancement of Current Carrying Capability of Superconducting YBCO Films using Chemical Doping", Applied Superconductivity Conference, August 27th – September 1st, Seattle, WA, 2006.

Q.Y. Hu, R.T. Lu, Y.L. Guo, Y.X. Zhou and K. Salama, "Coated Conductors Prepared Using Thermal Co-evaporation and Its Microstructures", Applied Superconductivity Conference, August 27th – September 1st, Seattle, WA, 2006.

RESEARCH PRESENTATIONS

Papers at Technical Meetings:

Fysikerkonferensen I, Goteborg, Sweden, June 1963; "Elastic Constants of CsBr and CsI from 4.2K to Room Temperature" with J. Vallin and O. Beckman. IEEE Ultrasonic Symposium, October 1966; "Measurement of the Third Order Elastic Constants of Copper" with G.A. Alers.

IEEE Ultrasonic Symposium, September 1968; "The Third-Order Elastic Moduli of Pure Nickel and Some Dilute Copper-Nickel Alloys" with G.A. Alers.

ASM Materials Engineering Congress, October 1969; "Microstrain and Electron Micrographic Slip Line Studies of Ordered and Disordered Cu₃Au" with F. Shaika and J.M. Roberts.

AIME Spring Meeting, May 1970; "Nonelastic Microstrains and Damping Loops in the Easy Glide Region" with J.M. Roberts.

ASM Materials Engineering Congress, October 1970; "Back Recovery Microstrain in Stage II Deformation of Copper" with J.M. Roberts.

ASME Materials Engineering Congress, October 1970; "The Fine Structure of Slip Lines in Disordered Cu₃Au" with J.M. Roberts.

TMS Spring Meeting, May 1971; "On the Elastic Approximation to the Vacancy Formation Energy in Metals" with W.J. Arnoult and J.M. Roberts.

TMS Spring Meeting, May 1971; "Back Recovery Microstrains in Magnesium Deformed in Easy Glide" with W.J. Arnoult and J.M. Roberts.

The Ultrasonic Symposium, December 1971; "Effect of Magnetic Field on the Ultrasonic Propagation in Terbium Single Crystal" with P.I. Donoho and F.R. Brotzen.

IEEE Ultrasonic Symposium, September 1976; "Ultrasonic Fatigue in Copper and Aluminum" with A. Tylyanon.

AIME Annual Meeting, March 1977; "Influence of High Power Ultrasound on the Yielding of Hydrogenated Niobium" with M.M. Farahani and F. Attia.

ASNT Fall Conference, October 1977; "The Sensitivity of the Temperature Dependence of the Ultrasonic Velocity to Residual Stresses" with R.M. Ippolito.

NSF Meeting on Hydrogen Embrittlement, Leigh University, January 1977; "Influence of High-Power Ultrasound on the Hydrogen Embrittlement of Group VA Metals".

AIME Annual Meeting, February-March, 1978; "The Sensitivity of Ultrasonic Fatigue to Strain Hardening" with R.K. Lamerand.

Acoustical Society of America, May 1978; "The Use of Ultrasound in the Prediction of Fatigue Life" with R.K. Lamerand.

International Instrumentation Symposium, May 1978; "An Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses" with R.M. Ippolito.

First International Symposium on Ultrasonic Materials Characterization, June 1978, "The Use of Temperature Dependence of Ultrasonic Velocity to Evaluate Residual Stress" with R.M. Ippolito.

SESA Fall Meeting, Oct. 1978; "Ultrasonic Methods for the Nondestructive Evaluation of Residual Stresses."

AIME Fall Meeting, Oct. 1978; "Low Temperature Hydrogen Embrittlement of Single Crystals of Niobium and Tantalum," with M.M. Farahani and F. Attia.

ARPA/ AFML Review of Progress in Qualitative NDE, July 1979; "Non-destructive Evaluation of Bulk Stresses in Aluminum and Copper," with C.K. Ling.

AIME Fall Meeting, Sept. 1979; "Hydrogen Embrittlement in Single- and Poly-Crystals of Tantalum," with F. Attia and M.M. Farahani.

AIME Fall Meeting, Sept. 1979; "Effect of Ultrasound on the Hydrogen Embrittlement of Tantalum," with F. Attia and M.M. Farahani.

IEEE Ultrasonic Symposium, Sept. 1979; "Effect of Hydrogen on the Elastic Moduli of Vanadium," with C.K. Ko and J.M. Roberts.

DARPA/AFML Review of Progress in Quantitative NDE, July 1980; "The Determination of Tensile Stresses Using the Temperature Dependence of Ultrasonic Velocity," with A.L.W. Collins and Jen-Jo Wang.

ASNT Fall Meeting, Oct. 1980; "NDE of Residual Stresses Using Ultrasonic Techniques," with A.L.W. Collins.

SESA Fall Meeting, Oct. 1980; "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity," with C.K. Ling and Jo-Jen Wang.

SESA Fall Meeting, Oct. 1980; "New Developments in Measuring Residual Stresses Using Ultrasonic Techniques.

Workshop on NDE of Titanium Alloys, Dec. 1980; "Nondestructive Evaluation to Bulk Residual Stresses Using Ultrasonic Techniques."

13th Symposium on Nondestructive Evaluation, April 1981, "Nondestructive Evaluation of Bulk Residual Stresses in Steels," with J.J. Wang and A.L.W. Collins.

AF/DARPA Review of Progress in NDE, August 1981, "Nondestructive Evaluation of Bulk Residual Stresses in Steels," with J.J. Wang and A.L.W. Collins.

AIME Fall Meeting, Oct. 1981, "Effects of Hydrogen on Fatigue Crack Growth and Plastic Zone Formation in Niobium," with S. Fariabi.

Fatigue and Corrosion Fatigue up to Ultrasonic Frequencies, Oct. 1981, "The Prediction of Fatigue Life Using Ultrasound Testing," with R.K. Lamerand.

Third Annual EPRI NDE Meeting, Nov. 1981, "Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses.

AIME Annual Meeting, Feb. 1982, "Hydrogen Embrittlement in Single- and Poly-Crystals of Tantalum," with F. Attia and M.M. Farahani.

AF/DARPA Review of Progress in Quantitative NDE, August 1982, "The Use of the Temperature Dependence to Measure Residual Stress," with J.J. Wang and C.G. Barber.

Germany-United States Workshop on Research and Development to New Procedures in NDT, August 1982, "The Use of the Temperature Dependence of Ultrasonic Velocity to Measure Applied and Residual Stresses", with J.J. Wang.

IEEE Ultrasonic Symposium, Oct. 1982, "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity," with G.C. Barber and N. Chandrasekaran.

Symposium on Nondestructive Methods for Material Property Determination, April, 1983, "Relationship Between Stress and Temperature Dependence of Ultrasonic Shear Velocity," with N. Chandrasekaran.

14th Symposium on NDE, April 1983, "Nondestructive Stress Measurements in Aluminum" with G.C. Barber and N. Chandrasekaran.

American Society of Lubrication Engineers Annual Meeting, April 1983, "Relations Between Contact Geometry and Testing Parameters During Fretting Wear," with S. Soderberg and O. Vingsbo.

Annual Review of Progress in Quantitative NDE, August 1983, "The Temperature Dependence of Shear Velocity in Aluminum," with S.L. Chu.

TMS-AIME Fall Meeting, Oct. 1983, "Effect of Carbon Content on Relationship Between Temperature Dependence of Ultrasonic Velocity and Applied Stress in Steels," with J.S. Heyman and S.G. Allison.

TMS-AIME Fall Meeting, Oct. 1983, "Determination of Stress Generated by Shrink Fit," with N. Chandrasekaran and Y.H. Wu.

IEEE Ultrasonic Symposium, Oct. 1983, "Ultrasonic Measurement of Residual Deformation Stress in Thin Metal Plates Using Surface Acoustic Waves," with S.G. Allison and J.S. Heyman.

IEEE Ultrasonic Symposium, Oct. 1983, "Influence of Carbon Content on Higher-Order Ultrasonic Properties in Steels," with J.S. Heyman and S.G. Allison.

Annual Review Progress in Quantitative NDE, July 1984, "Relationship Between Temperature Dependence of Ultrasonic Velocity and Stress".

Annual Review Progress in Quantitative NDE, July 1984, "Nondestructive Determination of Mechanical Properties", with E. Schneider and S.L. Chu

International Symposium on Strength of Materials and Structural Components at Sonic and Ultrasonic Loading Frequencies, Kiev, USSR, Sept. 1984, "Fretting Wear at Ultrasonic Frequencies", with S. Soderberg, T. Colvin, D. Nikoonezhad and O. Vingsbo.

IEEE Ultrasonic Symposium, Nov. 1984, "Effect of Prestrain Upon Acoustoelastic Properties of Carbon Steel", with S.G. Allison and J.S. Heyman.

IEEE Ultrasonic Symposium, Nov. 1984, "Influence of Texture on the Temperature Dependence of Ultrasonic Velocities", with E. Schneider and S.L. Chu

International Congress on Fracture, Dec. 1984, "Effects of Hydrogen and Temperature on Yielding of Tantalum", with F.G. Attia.

International Congress on Fracture, Dec. 1984, "Effects of Hydrogen on Plastic Zone in Near-Threshold Fatigue Crack Propagation", with S. Fariabi and A.L.W. Collins.

American Physical Society Meeting, March 1985, "Dependence of Higher-Order Elastic Constants on Microstructure", with E. Schneider and S.L. Chu.

ASTM Symposium on Test Method for Hydrogen Embrittlement, May 1985, "Temperature Dependence of Fatigue-Crack Propagation in Niobium-Hydrogen Alloys", with N. Polvanich. Review of Progress in Quantitative NDE, June 1985, "Acoustoelastic Constants in Dilute Two-Phase Alloys", with E. Schneider and S.L. Chu.

Ultrasonic International, London, England, July 1985, "Ultrasonic Fretting in Steels, with S. Soderberg, T. Colvin, D. Nikoonezhad, O. Vingsbo.

CEC/ICMC 99, July 11-15, Montreal, Canada., "Application of Melt-texturing to HTS Conductors", K. Salama, S. Athur, and U. Balachandran

1999 July 7-10, Madison, WI., "Origins of the Grain Boundary Effect on the Critical Current in Superconducting Copper Oxides," S. V. Stolbov, M. K. Mironova, and K. Salama

1999 July 7-10, Madison, WI., "Origins of the Grain Boundary Effect on the Critical Current in Superconducting Copper Oxides," with S.V. Stolbov and M.K. Mironova.

Apr. 16-20, 2001, MRS Spring Meeting, "Growth of Carbon Nanotubes from Liquid Precursors", With W. Lo.

July 16-20, 2001, International Cryogenic Materials Conference, "Energy Conversion in Electromagnetic Launchers Containing Monolithic YBCO", with P.T. Putman.

AFOSR, "Buffer Layers and Biaxial Texturing of Nickel Substrates", University of Wisconsin, May 22, 2002

"Enhancement of Superconducting Properties of Textured YBCO Using Double Seeded Technique", with Y.X. Zhou, H. Fang and U. Balachandran, Applied Superconductivity Conference, Houston, TX, August 4-10, 2002

"Superconductivity of Iron-clad Nanocrystalline MgB₂ Wires", with H. Fang and Y.X. Zhou, Applied Superconductivity Conference, Houston, TX, August 4-10, 2002

"Optimization of Energy Conversion in Monolithic Superconducting Magnets", with P. T. Putman, Applied Superconductivity Conference, Houston, TX, August 4-10, 2002

"Melt-textured YBCO Superconducting Tube for Magnetic Shielding", with H. Fang, J. Claycomb, Y.X. Zhou, P. Putman and Ravi-Chandar, Applied Superconductivity Conference, Houston, TX, August 4-10, 2002

"Biaxial Texturing of Nickel Substrates for HTS Coated Conductors", with T. Rizwan and Y.X. Zhou, Applied Superconductivity Conference, Houston, TX, August 4-10, 2002

K. Salama, Plenary Talk, JAPMED 03, May 19-21, 2003, Athens, Greece.

K. Salama, MURI-CC-03 Workshop, June 11-13, 2003, Madison, Wisconsin.

K. Salama, 2003 DOE Annual Peer Review, Coated Conductor Wire Development, July 23-25, 2003, Washington, D. C.

K. Salama, Coated Conductor Technology Development Roadmap II, July 28, 2003, Washington, D. C.

E.G. Baburaj, K. Salama, "Synthesis and consolidation of nanocrystalline TiC based carbides", NanoSummit, Houston, July 30-August 1, 2003

E.G. Baburaj, V. Bhosle, M. Mironova, F. Attia*, K. Salama, "Dehydrogenation assisted bonding of nanocrystalline TiH₂", NanoSummit, Houston, July30-August 1, 2003

Invited Seminars:

Institute of Physics, University of Campinas, Brazil, July 1974; "The Third-Order Elastic Constants"

Instituto Militar de Engenharia, Rio de Janeiro, Brazil, August 1974; "The Early Stages of Deformations"

Federal Universitat, Sao Carlos, Brazil, August 1974; "The Elastic and The Anelastic Deformations" Rice University, Houston, Texas, July 1975; "The Use of Ultrasound to Study Hydrogen Embrittlement"

The Johns Hopkins University, August 1977; "Nondestructive Evaluation of Residual Stresses"

University of Texas at Austin, October 1977; "Nondestructive Evaluation of Residual Stresses"

MICON/MATCHEM CONF 78, April 1978; "New Developments in Hydride-Forming Alloys"

University of Texas at El Paso, May 1978; "The Use of Ultrasound in Prediction of Fatigue Life"

SESA Fall Meeting, Oct. 1980; "New Developments in Measuring Residual Stresses Using Ultrasonic Techniques."

NASA Langley, June 1981; "The Use of the Temperature Dependence of Ultrasonic Velocity to Determine Residual Stresses"

Symposium on Nondestructive Measurement of Wheel/Axle Residual Stress, June 1981, "The Use of the Temperature Dependence of Ultrasonic Velocity in the Nondestructive Measurement of Residual Stress."

IEEE Ultrasonic Symposium, October 1982, "Measurement of Residual Stress Using the Temperature Dependence of Ultrasonic Velocity."

Energy Laboratory, University of Houston, October 1982, "Nondestructive Measurement of Residual Stresses in Nuclear Energy Materials."

Rice University ASM Chapter, February 1983, "Nondestructive Evaluation of Residual Stresses."

Energy Laboratory, University of Houston, November 1983, "Residual Stress Evaluation in Energy Related Materials".

La Jolla Institute - Center for Studies of Nonlinear Dynamics, Dec. 1983, "New Developments in Nondestructive Measurements of Bulk Residual Stresses".

The American Society for Nondestructive Testing, South Texas Section, March 1984, "Ultrasonic Residual Stress Measurements"

Society for Experimental Mechanics - Residual Stress Seminar, April 1984, "Measuring Residual Stress Using Ultrasonic Methods".

Royal Institute of Technology, Stockholm, Sweden, June 1984, "Hydrogen Embrittlement in Group VA Metals".

Volve Technological Development Laboratory for Metallic Materials, Gotenberg, Sweden, June 1984, "Hydrogen Embrittlement in Group VA Metals".

Department of Mechanical Engineering, University of Linkoping, Linkoping, Sweden, June 1984, "Nondestructive Measurements of Residual Stresses by Ultrasonic Methods".

Institute of Technology, Uppsala University, Uppsala, Sweden, June 1984, "Hydrogen Embrittlement in Group VA Metals"

Nondestructive Testing Centre, Harwell, Oxfordshire, England, June 1984, "Use of Temperature Dependence Method in Residual Stress Measurements".

Wallenberg Foundation Seminar, Utrecht, Netherland, Dec. 1984, "New Developments in Nondestructive Measurements of Bulk Residual Stress".

Rice University, Materials Science Department, February 1985, "Nondestructive Characterization of Materials".

Dow Chemical, Texas Operations, Freeport, Tx, June 1985, "Nondestructive Measurement of Residual Stress".

Naval Surface Weapons Center, Materials Evaluation Branch, Dahlgren, VA, June 1985, "The Use of Higher-Order Elastic Properties in the Nondestructive Characterization of Solids".

Fraunhofer-Institut für Zerstorungsfreie Prüfverfahren, Saarbrücken, Germany, July 1985, "The Use of Higher-Order Elastic Properties in the Nondestructive Characterization of Solids".

Texas A&M University, College Station, TX, September 1985, "Temperature Dependence of Crack Propagation Profile in Hydrogenated Group VA Metals".

Rice University, ASM Chapter, November 1985, "Nondestructive Characterization of Materials".

NASA Langley Research Center, Hampton, VA, March 1986, "Hydrogen Embrittlement in Hydride Forming Metals".

Fraunhofer-Institut für Zerstorungsfreie Prüfverfahren, Saarbrücken, Germany, June 1986, "Nondestructive Characterization of Engineering Materials, Part I".

Fraunhofer-Institut für Zerstorungsfreie Prüfverfahren, Saarbrücken, Germany, June 1986, "Nondestructive Characterization of Engineering Materials, Part II".

Gordon Research Conference on Nondestructive Evaluation, Meriden, N.H., August 1986, "Ultrasonic Characterization of Two-Phase Materials".

Energy Laboratory, University of Houston, December 1986, "Nondestructive Characterization of Metal Matrix Composites."

Institute for Nondestructive Testing, Saarbrücken, FRG, 21 July 1987, Ultrasonic Characterization of Metal-Matrix Composites.

ASME, South Texas Section, 17 Sept. 1987, An Overview of Current Superconductivity Research

Rice University, 5 October 1987, High Temperature Superconductivity of Metal Matrix Composites

Energy Laboratory, University of Houston, 19 October 1987, Metal-Matrix Composites - Nondestructive Characterization.

Texas Society of Professional Engineers (Northwest Chapter), 21 October 1987, Current Research in Superconductivity with Emphasis on Engineering Applications

ASME, University of Houston Student Chapter, 18 November 1987, Superconductivity

Third International Symposium on Nondestructive Characterization of Materials, 4 October 1988, The Use of AEC and Acoustic Nonlinearity Parameter in the Characterization of Two-Phase Materials

Energy Laboratory, University of Houston, 31 October 1988, Nondestructive Characterization of Metal-Matrix Composites

National Research Council, Washington, D.C., 10 January 1989, Intelligent Process Control Systems
TMS Annual Meeting, Las Vegas, Calif, 28 February 1989, Processing of Oriented Grained Superconductors

Houston Materials Conference, Houston, TX, 4 April 1989, Processing and Mechanical Properties of High T_c Superconductors

Institute for Nondestructive Testing, Saarbrücken, FRG, 23 May 1989, Processing of High Current Superconductors

Max-Planck Institute for Metallurgy, Stuttgart, FRG, 26 May 1989, Processing of High Current Superconductors

Institute of Applied Physics, KFK, Karlsruhe, FRG, 30 May 1989, Processing of High Current Superconductors

Army Research Office Workshop, Raleigh, N.C., 17 July 1989, The Use of High-Power Ultrasound to Study Mechanical Properties.

Conference on Quantitative NDE, Bowdoin College, Maine, 26 July 1989, Acoustic Nonlinearity Parameter in Two-Phase Materials.

TMS Annual Meeting, Anaheim, Calif., 21 February 1990, Transport and Inductive Current Measurements in Oriented Grained 1-2-3 Superconductors.

Houston Society Manufacturing Engineers, Houston, Tx, 31 March 1990, Manufacturing and Application of High Temperature Superconductors

Army Benet Laboratories, Watervliet, N.Y., March 30, 1990, Nondestructive Characterization of Two-Phase Metal-Matrix Composites.

University of Texas, Austin, Texas, April 3, 1990, Processing of High Current Density YBa_2CuO_x Superconductors

Materials Research Society, San Francisco, California, April 19, 1990, Magnetic Field Dependence of Critical Current Densities in Oriented Grained $\text{YBa}_2\text{Cu}_3\text{O}_x$.

Third Canadian Conference on High T_c Superconductors, Montreal, Canada, May 4, 1990, Processing of High Current $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductors.

Institute of Applied Physics, KFR, Karlsruhe, FRG, 23 May 1990, High Current Density Process Grain Boundaries in 1-2-3 Superconductors.

American Institute of Chemical Engineers, Chicago, 15 November 1990, Processing of Oriented Grained YBa_2CuO_x Superconductors.

ASM International, Houston Chapter, 8 January 1991, Superconductivity.

TMS Annual Meeting, New Orleans, LA, Feb. 1991, Large Transport Current Density in Bulk Oriented-Grained 123/Ag Composites.

Twelfth Conference on Crystal Growth, Standard Sierra Camp, CA, May 1991, Oriented Grain Growth in YBCO Superconductors.

Fourth International Symposium on Superconductivity, ISS 91, Tokyo, Japan, Oct. 1991, Flux Pinning in Bulk Oriented-Grained YBCO/Ag Composites.

Seventh US-Japan Workshop on High-Field Superconductors, Fukoka, Japan, Oct. 1991, High Critical Currents in YBCO/Ag Superconducting Composites.

WASEDA Int. Symposium on Superconducting Materials, Tokyo, Japan, Oct. 1991, The Role of Silver and 211 Inclusions on the Transport Anisotropy in 123/Ag Composites.

MRS, Symposium on Superconductivity, Dec. 1991, Control of Flux Pinning Anisotropy in Oriented-Grained YBCO Superconductor.

TMS Spring Meeting, March 1992, Influence of Y_2BaCuO_5 Precipitates on the Current Density of Melt Processed $\text{YBa}_2\text{Cu}_3\text{O}_x$ Superconductor.

QNDE Conference, August 1992, Study of Interfacial Stress in Metal-Matrix Composites Using Ultrasonic Velocity Measurements.

Sixth Annual Conference on Superconductivity and Applications, Sept. 1992, Effects of Y_2BaCuO on Critical Current Enhancement.

Fifth US-Japan workshop on High TC Superconductors, Nov. 1992, Melt Processing and Properties of YBCO Superconductors.

Second International Israeli Conference on High TC Superconductors, Jan. 1993, Process-Induced Pinning in Melt-Textured YBCO Superconductors.

Rice University, Department of Mechanical Engineering and Materials Science, Feb. 1993, Processing and Properties of High TC Superconductors.

Civil Engineering Department, University of Houston, April 1993, Nondestructive Characterization of Internal Stresses in Metal-Matrix Composites.

QNDE Conference, August 1993, Acoustic Nonlinearity in Metal-Matrix composites

QNDE Conference, August 1993, Nondestructive Characterization of Interfacial Stresses in Metal-Matrix Composites.

First European Conf. on Applied Superconductivity, Oct. 1993, Progress in Melt-Texturing of YBCO Superconductors.

American Physical Society, March 1994, Lattice Defects and Their Effect on Superconductivity in Melt-Textured YBa_2CuO_x .

CISE, Milan, Italy, June 1994, Melt Texturing Growth of YBCO Superconductors.

Topical Symposium. IV, CIMETIC 8, July 1994, Melt-Textured Superconductors Using Seeded Directional Solidification.

M²S-HTSC IV, Grenoble, France, July 1994, Processing of Melt-Textured Superconductors Using Seeded Directional Solidification.

QNDE, Snowmass, Colorado, Aug. 1994, The Evaluation of Fatigue Behavior in Metal-Matrix Composites Using Ultrasonic Measurements.

International Cryogenic Materials Conf., Oct. 1994, Processing and Properties of High J_c Grain Boundaries in Melt-Textured YBCO.

Texas A&M University, Aerospace Engineering Dept., Nov. 1994, Nondestructive Characterization of Metal-Matrix Composites.

The Metallurgical Society Spring Meeting, Feb. 1995, Processing of YBCO for High Current Applications.

U. S.-Japan Workshop, Oct. 1995, "High Current Polycrystal YBCO Superconductor.

JIM'95 Fall Annual Meeting, Dec. 1995, "Processing and TEM Characterization of Grain Boundaries in YBCO."

10th Anniversary HTS Workshop on Physics, Materials and Applications, March 1996, "A Novel Approach to High Rate Melt-Texturing in 123 Superconductors."

Army Advanced Composites Conference, March 1996, "Nondestructive Characterization of Two-Phase Metal-Matrix Composites."

Applied Superconductivity Conference, August 1996, "Study of Superconducting Properties of Melt-Textured YBCO Levitators."

International Symposium on Advances in Superconductivity Bombay, India, Sept. 1996, "High Current Polycrystal YBCO Superconductor".

2nd Conference of NDE Applied to Process Control, St. Louis, MO, October 1996, "The Application of Elastic Anisotropy to the Process Control of Texture in Metal Matrix Composites".

The Metallurgical Society Annual Meeting, Orlando, FL, February 1997, "High Critical Currents in High-Angle Grain Boundaries in YBCO Superconductor".

Workshop on Research Needs and Opportunities, Monterey, CA, February 1997, "Grain Boundaries".

International Workshop on Critical Currents in Superconductors, Xian, China, February 1997, "A Novel Method for Processing High Tc Superconducting Current Leads".

International Workshop on Superconductivity, June 1997, Big Island, Hawaii, "Recent Developments in Melt Texturing of 123 Superconductors".

International Workshop on Processing and Engineering of Large Grain Superconductors, Cambridge, England, July 1997, "Processing and Characterization of YBCO Grain Boundaries Obtained by the Liquid Phase Removal Method".

Workshop on Flux, Quantum and Mesoscopic Effects in Superconducting Materials and Devices, Santa Fe, NM, August 1997, "Recent Developments in Melt Texturing for HTS Application".

Argonne National Laboratory, Chicago, IL, October 1997, "Recent Developments in Melt Texturing for High Current Applications".

ISTEC, Japan, January 1998, "High Currents in High-Angle Grain Boundaries of YBCO."

Tohoku University, Sendai, Japan, January 1998, "High Temperature Superconducting Materials."

TMS Annual Meeting, San Antonio, TX, February 1998, "Phase Formation and Melt Processing of Yb-123 Superconductor."

International Symposium on Processing and Critical Currents of HTS, Wagga Wagga, Australia, February 1998, "Recent Developments in Melt Texturing of 123 Compounds."

TCSUH Tenth Anniversary, Houston, TX, April 1998, "A Novel Approach to High Rate Melt Texturing in 123 Superconductors."

9th International Conference on Modern Materials and Technology, Florence, Italy, June 1998, "Recent Developments in Melt Texturing of 123 Compounds."

TMS Spring Meeting, San Diego, CA, Feb. 28, 1999, "The use of Powder-in-tube Method to Fabricate Yb-123 tapes."

Workshop on Bulk High Temperature Superconductors, May 17-18, 1999, Argonne National Lab, Argonne, IL., "Powder Synthesis and Conductor Fabrication."

Annual Int. Space Development Meeting, Houston, TX 30 May 1999, "The Role of High Temperature Superconductors in Space Applications."

2nd Int. Conference on New Theories, Discoveries, and Applications of Superconductors, Las Vegas, May 31 - June 4, 1999 "Application of Metal Organic Decomposition For the Fabrication of Coated Conductors."

Taiwan International Conference on Superconductivity and 6th Workshop on Low Temperature Physics, Kenting, Taiwan, 1999 Aug. 17-20, "Development of NdBCO Superconductors for Large Scale Applications."

5th International Summer School, Eger, Hungary, 21st July, 1999, "New Developments in Processing Methods and Techniques of Bulk Superconductors."

5th International Summer School, Eger, Hungary, 21st July, 1999, "Application of Melt Texturing to HTS Conductors."

The Second International Workshop on the Processing and Applications of Superconducting (RE)BCO Large Grain Materials, Morioka, Japan, Oct. 19-22, 1999 "Growth Process and Flux Pinning Mechanisms in NdBCO Large Grains Explored by Microstructural Analysis and Transport Current Measurements."

INFN Workshop on Superconducting Materials For High Energy Colliders, 1999 Oct 19-25, Erice, Italy., "Studies on Bi-2212 and Yb-123 Tapes Fabricated by PIT Technique."

Materials and Mechanisms of Superconductivity, Houston TX, Feb. 20-25, 2000, "Grain Boundaries in Bulk YBCO".

Journal of Metals, June 2000, "Recent Developments in Melt-Textured Superconductors".

6th International Workshop on Chemical Designing and Processing of HTS, Tokyo, Japan, Oct, 12-13, 2000, "Cation Doping in Melt Textured YBCO Superconductor"

13th International Symposium on Superconductivity, Tokyo, Japan, Oct. 14-16, 2000, "Texturing of REBCO Using Temperature Gradient".

MRS Fall Meeting, Boston, MA, Nov. 27 – Dec. 1, 2000, "Application of Solution Deposition Techniques to Coated Conductors".

International Conference on Processing and Manufacturing of Advanced Materials, Las Vegas, Dec. 4-8, 2000, "Melt-Processing of Yb-123 Tapes".

June 24-30, 2001, 6th International Workshop on "High Temperature Superconductors and Novel Inorganic Materials Engineering", Invited talk, Int. Advisory Board, Int. Scientific Program

July 11-13, 2001, 3rd International Workshop on Processing and Application of Superconducting Large Grain Materials, Invited Talk.

Invited paper, "Doping of YBCO Grain Boundaries", American Ceramic Society, April 28, 2002

Invited paper, "Fundamentals and Recent Achievements in Superconductivity Technology", Euro Summer School on Advanced Studies on Superconducting Engineering, August 22-30, 2002

K, Salama, Invited Talk, "Application of Melt-Textured YBCO to Electromagnetic Launchers", 4th International Workshop on Processing and Application of Superconducting Large Grain Materials, June 30 – July 2, 2003.

K. Salama, Invited Talk, "Fundamentals and Recent Achievements in Superconductivity Technology", Advanced Studies on Superconducting Engineering Euro Summer School, July 7-16, 2004 Budapest, Hungary.

K. Salama, Invited Talk, "Electromechanical Properties of Superconducting MgB₂ Wire", Workshop on Electromechanical Properties, Kyoto, Japan, 2005.

K. Salama, Invited Talk, "Effects of Ionic Doping on Superconducting Properties of Melt Textured YBCO", PASREG Workshop, Tokyo, Japan, October 21, 2005.

K. Salama, Plenary Talk, "The Promise of HTS for Electric Power Applications", JAPMED-4 Workshop, Kairo, Egypt, September 17-20, 2005.

K. Salama, Invited Talk, "Simplify Coated Conductors Architecture by Exploring Multi-Functional Buffer Materials using MOD Process", International Workshop on Coated Conductors, Santa Fe, NM, December 4-7 2005.

K. Salama, Invited Talk, "Electromechanical Properties of IBAD-YBCO Coated Conductor", International Workshop on the Mechanical and Electromagnetic properties of Superconductors, July 2nd – 5th, 2006, Durham, UK

K. Salama, Invited Talk, "Promise of MgB₂ SC Magnets", High Power Electric Propulsion Workshop, Liberia, Costa Rica, July 17th, 2006.

M. Alessandrini, H. Fang and K. Salama, Invited Talk, "Behavior of small coils using mono/multifilamentary MgB₂ strands of various shapes, cross section and heat treatment", Applied Superconductivity Conference, August 27th – September 1st, Seattle, WA, 2006.

FUNDED RESEARCH

Grants:

"Purchase of Equipment and Initial Research in Refractory Materials," University of Houston, 1974, \$4,500.

"Influence of High-Power Ultrasound on the Yielding and the Ductility of Hydrogenated Group VA Metals," National Science Foundation Grant Number DMR75-20362, 1974, 1978, \$59,200.

"Degradation of Cover Materials for Flat-Plate Collectors," Solar Energy Laboratory, University of Houston, 1976, \$13,858. (with R.B. Bannerot, and J.E. Cox)

"Degradation of Cover Materials for Flat-Plate Collectors," Solar Energy Laboratory, University of Houston, 1977, \$10,385. (with R.B. Bannerot and J.E. Cox)

"Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses," Air Force Office of Scientific Research Grant Number 77-3457, 1977-1979, \$58,456.

"The Use of High-Power Ultrasound to Study the Mechanisms of Hydrogen Embrittlement in Group VA Metals," National Science Foundation Grant Number DMR77-22503, 1978-1980, \$75,756.

"Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses," Electric Power Research Institute, Contract T 107-2, 1981, \$57,478.

"Nondestructive Evaluation of Energy Related Structures", Energy Laboratory, University of Houston, 1981, \$11,791 (with S.A. Long and B.D. Cook).

"Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses," Electric Power Research Institute, Contract T107-2, 1982, \$58,166.

"Purchase of Pulsed Ultrasonic Interferometer," Energy Laboratory, University of Houston, 1982, \$4,500.

"Nondestructive Evaluation of Energy Related Structures," Energy Laboratory, University of Houston, 1982, \$4,316.

"Research in Materials Science," The Jacob Wallenberg Foundation, December 1982, \$40,000 Sw. Cr.

"Fretting Wear of Metals at Ultrasonic Frequency," National Science Foundation, Division of International Programs, Dec. 1982, \$20,210.

"Intergovernmental Personnel Act - Residual Stress Measurements," NASA Langley, January 1983, \$25,000.

"Nondestructive Evaluation of Residual Stress in Low-Carbon Steels," NASA Langley, Sept. 1983, \$32,817.

"Development of an Ultrasonic Method for the Nondestructive Evaluation of Residual Stresses", Office of Naval Research, N00014-83-0496, 1983, \$66,174.

"Nondestructive Evaluation of Energy Related Structures and Materials", Energy Laboratory, University of Houston, 1983, \$12,000.

"Nondestructive Ultrasonic Characterization of Engineering Materials", NASA-Langley, NCC1-88, 1984-86, \$100,480.

"Materials Evaluation Research", Flopetrol Johnson Company, 1985, \$19,025.

"Nondestructive Characterization of Metal-Matrix Composites", Energy Laboratory, University of Houston, 1986, \$9,189.

"Nondestructive Characterization of Two-Phase Materials", National Science Foundation, MSM-8521830, 1986-88, \$75,839.

U.S.-FRG Cooperative Research, Nondestructive Characterization of Two-Phase Materials", National Science Foundation, INT 8521370, \$12,460, 1985.

"Fretting Wear in Heat Exchanger Materials", Energy Laboratory, University of Houston, 1987, \$9,398.

"Superconducting: Materials Engineering", Texas Center for Superconductivity at the University of Houston, 1987-88, \$110,380.

"Superconductivity: Materials Engineering", Texas Center for Superconductivity at University of Houston, 1988-89, \$303,046.

"Nondestructive Characterization of Metal-Matrix Composites", Energy Laboratory, University of Houston, 1988, \$9,529.

"Nondestructive Characterization of Two-Phase Metal-Matrix Materials, Army Research Office, 1988-91, \$267,353.

"The Seventh International Conference on Fracture", National Science Foundation, MSM-8817905, 1988, \$15,600.

"The Seventh International Conference on Fracture", Army Research Office, 1988, \$6,450.00.

"The Seventh International Conference on Fracture", Office of Naval Research, 1988, \$6,450.00.

"Superconductivity-Materials Engineering", Texas Center for Superconductivity at the University of Houston, 1989-1990, "\$260,000.

"Superconductivity - Materials Engineering", Texas Center for Superconductivity at the University of Houston, 1990, \$198,500.

"Superconductivity - Materials Engineering", Texas Center for Superconductivity at the University of Houston, 1990, \$300,000.

"Nondestructive Characterization of Interfacial Bonding In Metal-Matrix Composites", The National Science Foundation, 1990-92, \$80,003.

"Superconductivity: Materials Engineering", Texas Center for Superconductivity at University of Houston, 1991, \$550,000.

"Superconductivity: Materials Engineering", Texas Center for Superconductivity at University of Houston, 1992, \$341,000.

"Superconductivity: Materials Engineering", Texas Center for Superconductivity at University of Houston, 1992, \$450,000.

"Nondestructive Characterization of Interfacial Bonding in Two-Phase Metal-Matrix Materials", Army Research Office, DAAL03-92-G-0039, 1992-1995, \$238,642.

"The Eighth International Conference on Fracture ICF8", Army Research Office, DEEHO4-93-G-0235, 1993, \$4,000.

"Travel Support to Eighth International Conference on Fracture, ICF8", National Science Foundation, MSS-93-11547m, 1993, \$15,000.

"Superconductivity: Manufacturing", Texas Center for Superconductivity at University of Houston 1993-94, \$250,000.

"Superconductivity: Manufacturing", Texas Center for Superconductivity at University of Houston, 1994-95, \$120,000.

"Superconductivity: Processing and Mechanical Properties", Texas Center for Superconductivity at University of Houston, 1994-95, \$220,000.

"Nondestructive Characterization Applied to Process Control of Metal Matrix Composites", Army Office of Research 1995-98, \$248,958.

"Laboratory Expenses for R. Nunez", University of Wisconsin 1995-96, \$6,000.

"Processing of YBCO Superconductors", Argonne National Lab, 1995-96, \$24,249.

"Processing of YBCO and BSCCO Superconductors for High Current Levels and Conductors", Oak Ridge National Lab, 1995-96, \$47,406.

"HTS Manufacturing Processes", Texas Center for Superconductivity, 1995-96, \$120,000.

"HTS Bulk Processing and Mechanical Properties", Texas Center for Superconductivity, 1995-96, \$169,384.

Argonne National Lab, Division of Educational Programs, S.P. Athur and K. Salama; Mat. Sci.-Appl. Superconductivity, 1998-1999, \$103,047.

Oak Ridge National Lab, Appl. Superconductivity Program, S. Sathyamurthy and K. Salama; Multigrain YBCO Leads, 1997, \$98,011.

“Development of SQUID Based Technologies for the Detection of Corrosion,” Texas Advanced Technology Program, with J. Miller, Jr., 1998, \$143,840.

“Nondestructive Characterization Applied to process Control of Metal-Matrix Compounds,” Army Research Office, 1995. \$252,670.

“Processing and Mechanical Properties of High Temperature Superconductors,” Texas Center for Superconductivity, \$280,000, 1999.

Argonne National Lab, Division of Educational Programs, S. P. Athur and K.Salama; Mat. Sci.-Appl. Superconductivity, \$130,199 1994-99.

“Development of SQUID Based Technologies for the Detection of Corrosion,” Texas Advanced Technology Program, with J. Miller, Jr., 1998, \$143,840, 1998.

“Nondestructive Characterization Applied to process Control of Metal-Matrix Compounds,” Army Research Office, 1995. \$252,670, 1996-1999.

“Processing and Mechanical Properties of High Temperature Superconductors,” Texas Center for Superconductivity, \$280,000, 1998.

Processing of Oxide Powder and Bulk Material NSF-MRSEC,” \$55,000, 1998.

“Nondestructive Characterization Applied to Process Control of Metal-Matrix Compounds”, Army Research Office, 1996-2000, \$133,119.

Processing of YBCO Superconductor, Argonne National Laboratory, 1996-2001, \$121,475.

Processing and Mechanical Properties of High Temperature Superconductors, Texas Center for Superconductivity, \$250,000, with Ravi-Chandar and Vipulanandan.

Processing of Oxide Powder and Bulk Material, NSF-MRSEC, 2000-2001, \$60,000.

Processing of Coated Conductors, Air Force of Scientific Research, AFOSR, 2001-2003, \$50,000.

Challenges in High Speed Processing of Coated Conductors, AFOSR, \$60,000, 2002.

Processing and Mechanical Properties of High Temperature Superconductors, Texas Center for Superconductivity and Advanced Materials, \$187,500, 2002-2003.

HTS Processing and Mechanical Properties, Texas Center for Superconductivity and Advanced Materials, \$45,000, May 2003.

Epitaxial Growth of Solution Based Buffer Layers on Biaxially Textured Metal Substrates, AFOSR, \$50,000, 2002-2004.

HTS Processing and Mechanical Properties, Texas Center for Superconductivity and Advanced Materials, \$184,875, 2003-2004.

Study of Mechanical Properties of Ceramic Membranes in Controlled Atmosphere and Atmosphere Gradients, Department of Energy, Subcontracted from Argonne National Laboratory, \$59,393, 2004-2005.

HTS processing and mechanical properties, Texas Center for Superconductivity, \$218,250.00, 2004-2005.

Development of HTS Coils, Naval Surface Warfare Center, \$51,252, 2005.

Fabrication and Test of Low AC Loss YBCO Coated Conductor Wire, Department of Defence, Subcontracted from Sierra Lobo, \$29,870, 2005.

“Characterization Testing of Second Generation High Temperature Superconducting (HTS) Wire Samples”, Superpower Inc., June 1, 2006 – May 31, 2007, \$59,898, 100%.

“HTS processing and mechanical properties”, Texas Center for Superconductivity, September 1, 2005 – August 31, 2006, \$230,000, 100%.

“Study of the Development of the VASIMR”, Ad Astra Rocket Co., May 1, 2006 – April 30, 2007, \$35,993, 100%.

SERVICE ACTIVITIES

University Service - Department Level:

1974-Present	Graduate Affairs Committee
1975-1978	Lab and Shop Committee
1978-1982	Director of Graduate Studies

University Service - College Level:

1974-Present	Mechanics/Materials Advisory Committee
1975 - Present	Planning and Development Committee
1976 - 1977	Graduate Standard Committee
1977-Present	Director, Interdisciplinary Program in Materials Engineering
1991	Member, LGIA Committee
1998-present	Member, Intellectual Property Committee
1997-present	Deputy Director, Texas Center For Superconductivity, University of Houston
1999-present	Member, Promotion and Tenure Committee, Cullen College of Engineering

Professional Organizations:

American Institute of Metallurgical Engineering

American Society of Metals

American Physical Society

Sigma Xi

The American Society for Nondestructive Testing

Director, International Congress on Fracture, 1984-Present

Co-Chairman, 6th International Conference on Materials & Mechanisms of High Temperature Superconductivity

Co-Chairman, Program Committee, Applied Superconductivity Conference, Sept. 2002.

Member, International Advisory Committee, International Symposium on Superconductivity, Yokohama, Japan, November 11-13, 2002.