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Randy Groves
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Professional Profile

Dr. Groves holds academic degrees in Materials Science and Engineering and is an Expert Systems Engineer Professional.

Dr. Groves is a senior leader and materials scientist with over 30 years of experience in defense, semiconductors, and advanced manufacturing. He offers clients deep technical expertise in materials science, engineering, and innovation strategy. He serves defense agencies, semiconductor manufacturers, and technology startups, helping them develop cutting-edge solutions and navigate complex R&D challenges. Dr. Groves has a wide variety of industry experience from his work prior to joining Exponent, including founding and leading companies. This includes leading and driving materials innovation under the $1B EDITS contract, optimizing dielectric etch processes for high-volume analog ICs, and pioneering low-cost 3D metal printing.

Dr. Groves has extensive expertise in materials science and engineering, with a strong focus on thin film deposition, materials characterization, and vacuum system design. His work spans national laboratories, academic research, and startup environments, where he has applied advanced techniques such as ion beam assisted deposition (IBAD), sputtering (including magnetron and ion beam sputtering), electron beam evaporation, laser ablation, and chemical vapor deposition (CVD) methods including flash evaporation and solid/liquid source processing. He has characterized materials using a wide array of tools including X-ray diffraction (XRD), X-ray fluorescence (XRF), X-ray photoelectron spectroscopy (XPS), Rutherford backscattering spectrometry (RBS), secondary ion mass spectrometry (SIMS), scanning and transmission electron microscopy (SEM/TEM), mechanical profilometry, and reflection high-energy electron diffraction (RHEED). His engineering work includes designing and building custom deposition systems, rebuilding scientific equipment, and modifying vacuum chambers. He has also developed in-situ, thin film growth measurement devices integrating mass accumulation monitoring (Quartz-Crystal Microbalance) with RHEED imaging. His research has contributed to the development of high-temperature superconducting tapes, photovoltaic absorber layers, hydrogen storage nanoparticles, and wear-resistant coatings.

In addition to his science and engineering background, Dr. Groves is an Army Reserve Veteran with a 30-year career culminating in his role as Colonel and Director of Human Capital at the Army Reserve Innovation Command. He led strategic initiatives to identify and implement emerging technologies in support of Army Futures Command, overseeing a brigade-equivalent unit and coordinating innovation efforts across five city teams for the Army Reserve's 75th Innovation Command. His leadership extended to deployments in Iraq, Afghanistan, and Kuwait, where he managed engineering operations, including a $180M base construction project and the deconstruction of 17 forward operating bases. He has been an Engineer Brigade Commander and Engineer Battalion Commander; both as combat tours. His service earned him prestigious honors including the Legion of Merit and Bronze Star Medal. Throughout his military career, Randy demonstrated expertise in leadership, strategic planning, organizational

development, and engineering force integration, consistently driving mission success and modernization across the Army enterprise.

Academic Credentials & Professional Honors

Masters, Strategic Studies, US Army War College, 2017

Ph.D., Materials Science and Engineering, Stanford University, 2011

M.S., Materials Engineering, New Mexico Inst. of Mining and Technology, 1996

B.S., Materials Engineering, New Mexico Inst. of Mining and Technology, 1991

2003 R&D Award for Flexible Superconducting Tape, Los Alamos National Laboratory

1997 Los Alamos Award for Excellence in Technology Transfer for Partnership Development Activity, Los Alamos NationalLaboratory

1996 Award for Excellence in Industrial Partnerships, Los Alamos National Laboratory

1991 Ashman Award for Materials Science, New Mexico Institute of Mining and Technology

1989 Alpha Sigma Mu National Materials Science Honors Society

1988 Tau Beta Pi National Engineering Honor Society

Professional Affiliations

Member – ASTM International (2022)

Member – International Council on Systems Engineering (2022)

Member – American Society of Mechanical Engineers (ASME) (2012 – Present)

Member – Materials Research Society (MRS) (1996 – Present)

Patents

US Patent 10,807,162: System and Method for Additive Metal Manufacturing, 2020 (Connor ST, Sorom TC, GrovesJR)

US Patent 10,418,497: Silver-Bismuth Non-Contact Metallization Pastes for Silicon Solar Cells, 2019 (Hardin BE,Connor ST, Groves JR, Peters CH)

US Patent 10,087,332: Sinterable Metal Paste for Use in Additive Manufacturing, 2018 (Connor ST, Sorom TC,Groves JR)

US Patent 9,873,938: Depositing Calcium Fluoride Template Layers for Solar Cells, 2018 (Hardin BE, Groves JR,Peters CH)

US Patent 9,331,216: Core-Shell Nickel Alloy Composite Particle Metallization Layers for Silicon Solar Cells, 2016(Hardin BE, Groves JR, Peters CH)

US Patent 9,070,811: Multi-crystalline II-VI based Multijunction Solar Cells and Modules, 2015 (Hardin BE, GrovesJR)

US Patent 6,933,065: High Temperature Superconducting Thick Films, 2005 (Arendt PN, Foltyn SR, Groves JR)

US Patent 6,921,741: Substrate Structure for Growth of Highly Oriented and/or Epitaxial Layers Thereon, 2005(Arendt PN, Groves JR)

US Patent 6,899,928: Dual Ion-beam Assisted Deposition of Biaxially Textured Cubic Magnesium Oxide TemplateLayers, 2005 (Arendt PN, Foltyn SR, Groves JR)

US Patent 6,884,527: Biaxially Textured Composite Substrates, 2005 (Arendt PN, Groves JR)

US Patent 6,843,898: High Temperature Superconducting Composite Conductors, 2005 (Foltyn SR, Groves JR)

US Patent 6,800,591: Buffer Layers on Metal Alloy Substrates for Superconducting Tapes, 2004 (Arendt PN, GrovesJR)

US Patent 6,756,139: Buffer Layers on Metal Alloy Substrates for Superconducting Tapes, 2004 (Arendt PN, GrovesJR)

US Patent 6,716,545: High Temperature Superconducting Composite Conductors, 2004 (Foltyn SR, Groves JR)

Publications

First Author Publications

Groves JR, Li J, Clemens BM, Branz HM, Lasalvia V, Hassoon F, Teplin CW. Biaxially-textured Silicon on Ion Beam Assisted Deposition CaF_2 Seed Layers on Glass for Photovoltaics. Energy Environ. Sci. 2012;5:6905–6908.

Groves JR, Hammond RH, Matias V, DePaula RF, Stan L, Clemens BM. Biaxial Texture Development in the IonBeam Assisted Deposition of Magnesium Oxide. Nucl. Instrum. Methods Phys. Res. B. 2012;272:28–32.

Groves JR, Matias V, DePaula RF, Stan L, Hammond RH, Clemens BM. The Role of Nucleation Surfaces in the Texture Development of Magnesium Oxide During Ion Beam Assisted Deposition. IEEE Trans. Appl. Supercond.2011;21(3).

Groves JR, Hayes GJ, Li JB, DePaula RF, Hammond RH, Salleo A, Clemens BM. Biaxial Texturing of Inorganic Photovoltaic Thin Films Using Low Energy Ion Beam Irradiation During Growth. MRS Proc. 2010;1245:A20-06.

Groves JR, Hammond RH, Matias V, Stan L, DePaula RF, Clemens BM. Optimization of Ion Assist Beam Deposition of Magnesium Oxide Template Films During Initial Nucleation and Growth. MRS Proc. 2010;1254E:L5.10.

Groves JR, DePaula RF, Stan L, Hammond RH, Clemens BM. Fundamental Aspects of Ion Beam Assisted Deposition of Magnesium Oxide Template Films. IEEE Trans. Appl. Supercond. 2009;19(3):3311–3314.

Groves JR, Hammond RH, DePaula RF, Stan L, Clemens BM. Ion-beam Texturing at Nucleation – Manipulation of Crystallographic Orientation in Cubic Materials at the Nanometer Scale. MRS Proc. 2009;1181.

Groves JR, Hammond RH, DePaula RF, Clemens BM. Investigation of Early Nucleation Events in Magnesium Oxide During Ion Beam Assisted Deposition. MRS Proc. 2009;1150E:RR02-02.

Groves JR, Arendt PN, Holesinger TG, DePaula RF, Stan L, Usov IO, Hammond RH. Dual Ion Assist Beam Processing of Magnesium Oxide Template Layers for 2nd Generation Coated Conductors. IEEE Trans. Appl.Supercond. 2007;17(2):3402–3405.

Groves JR, Arendt PN, Foltyn SR, Jia QX, Holesinger TG, Emmert LA, DePaula RF, Dowden PC, Stan L. Improvement of IBAD MgO Template Layers on Metallic Substrates for YBCO HTS Deposition. IEEE Trans. Appl.Supercond. 2003;13(2):2651–2654.

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Groves JR, Arendt PN, Foltyn SR, Jia QX, DePaula RF, Dowden PC, Kung H, Holesinger TG, Stan L, Emmert LA, Peterson EJ. Ion-beam Assisted Deposition of MgO with In Situ RHEED Monitoring to Control Bi-axial Texture. MRSProc. 2002;666:F10.6.1–F10.6.7.

Groves JR, Arendt PN, Foltyn SR, Jia QX, Holesinger TG, Kung H, Peterson EJ, DePaula RF, Dowden PC, Stan L, Emmert LA. High Critical Current Density $YBa_2Cu_3O_7$-δ Thick Films Using Ion Beam Assisted Deposition MgO Bi-axially Oriented Template Layers on Nickel-based Super Alloy Substrates. J. Mater. Res. 2001;16(8):2175–2181.

Groves JR, Yashar PC, Arendt PN, DePaula RF, Peterson EJ, Fitzsimmons MR. Ultra-thin Bi-axially Textured IBAD MgO Template Layers Resolved by Grazing Incidence X-ray Diffraction. Physica C. 2001;355(3–4):293–298.

Groves JR, Arendt PN, Kung H, Foltyn SR, DePaula RF, Emmert LA, Storer JG. Texture Development in IBAD MgO Films as a Function of Deposition Thickness and Rate. IEEE Trans. Appl. Supercond. 2001;11(1):2822–2825.

Groves JR, Arendt PN, Jia QX, Foltyn SR, DePaula RF, Dowden PC, Kinder LR, Fan Y, Peterson EJ. High Critical Current Density PLD YBCO Deposited on Highly Textured IBAD MgO Buffer Layers. Ceramic Trans. 2000;104:219–224.

Groves JR, Arendt PN, Foltyn SR, DePaula RF, Dowden PC, Peterson EJ, Peterson DE, Springer RW, Hammond RH, Wang CP. Ion-Beam Assisted Deposition of Biaxially Aligned Magnesium Oxide Template Films for Yttrium-Barium-Copper-Oxide Coated Conductors. IEEE Trans. Appl. Supercond. 1999;9(2):1964–1966.

Groves JR. Sputter Deposited Mo/MoN Microlaminate Composites. Master’s Thesis, New Mexico Institute of Miningand Technology, May 1996.

Co-authored Publications

Clemens BM, Kadis J, Clemens DM, Pollak EJ, Clark P, Groves JR. Effect of Vibration Treatment on Guitar Tone: A Comparative Study. Savart J. 2014;1(4).

Barnard ES, Hoke ET, Connor ST, Groves JR, Kuykendall T, Yan Z, Samulon EC, Bourret-Courchesne E, Aloni S, Schuck PJ, Peters CH, Hardin BE. Probing Carrier Lifetimes in Photovoltaic Materials Using Subsurface Two-PhotonMicroscopy. Sci. Rep. 2013;3:2098. doi:10.1038/srep02098.

Han SM, Feng G, Jung JY, Jung HJ, Groves JR, Nix WD, Cui Y. Critical-Temperature/Peierls-Stress Dependent Size Effects in Body Centered Cubic Nanopillars. Appl. Phys. Lett. 2013;102:041910.

Chung CJ, Lee SC, Groves JR, Brower EN, Sinclair R, Clemens BM. Interfacial Alloy Hydride Destabilization in Mg/Pd Thin Films. Phys. Rev. Lett. 2012;108:106102.

Cooke DW, Hellman F, Groves JR, Clemens BM, Moyerman S, Fullerton EE. Calorimetry of Epitaxial Thin Films. Rev. Sci. Instrum. 2011;82:023908

Han SM, Bozorg-Grayeli T, Groves JR, Nix WD. Size Effects on Strength and Plasticity of Vanadium Nanopillars. Scripta Mater. 2010;63(12):1153–1156.

Gsell S, Schreck M, Brescia R, Stritzker B, Arendt PN, Groves JR. Iridium on Biaxially Textured Oxide Templates: A Concept to Grow Single Crystals on Arbitrary Substrates. Jpn. J. Appl. Phys. 2008;47(12):8925–8927.

Stan L, Arendt PN, Wang HY, Foltyn SR, Holesinger TG, Maiorov B, Civale L, Usov IO, Groves JR, DePaula RF, Li YL. Study of $Sm_xZr_{1-x}O_\gamma$ Buffer Layer and Its Effects on YBCO Properties. IEEE Trans. Appl. Supercond.2007;17(2):3409–3412.

Stan L, Arendt PN, Usov IO, Wang HY, Foltyn SR, Holesinger TG, Maiorov B, Groves JR, DePaula RF, Li YL. Engineered Reactive Co-Sputtered $Sm_xZr_{1-x}O_\gamma$ Thin Films as Buffer Layers for $YBa_2Cu_3O_{7-\delta}$ Coated Conductors.J. Mater. Res. 2007;22(4):1082–1086.

Stan L, Arendt PN, DePaula RF, Groves JR. Effect of Substrate Temperature on the Texture of MgO Films Grown by Ion Beam Assisted Deposition. Supercond. Sci. Technol. 2006;19(4):365–367.

Cooke DW, Lee JK, Bennett BL, Groves JR, Jacobsohn LG, McKigney EA, Muenchausen RE, Nastasi M, Sickafus KE, Tang M, Valdez JA, Kim JY, Hong KS. Luminescent Properties and Reduced Dimensional Behavior ofHydrothermally Prepared Y_2SiO_5:Ce Nanophosphors. Appl. Phys. Lett. 2006;88(10):103108.

Usov IO, Arendt PN, Groves JR, Stan L, DePaula RF. Annealing of Radiation Damage in (100), (110), and (111) MgO Single Crystals Implanted with Ar^+ Ions. Nucl. Instrum. Methods Phys. Res. B. 2006;243(1):87–91.

Usov IO, Arendt PN, Groves JR, Stan L, DePaula RF. Crystallographic Orientation Dependence of Radiation Damage in Ar^+ Implanted YSZ and MgO Single Crystals. Nucl. Instrum. Methods Phys. Res. B. 2005;240(3):661–665.

Arendt PN, Foltyn SR, Civale L, DePaula RF, Dowden PC, Groves JR, Holesinger TG, Jia QX, Kreiskott S, Stan L, Usov IO, Wang H, Coulter JY. High Critical Current YBCO Coated Conductors Based on IBAD MgO. Physica C.2004;412–414:795–800.

Arendt PN, Foltyn SR, Civale L, DePaula RF, Dowden PC, Groves JR, Holesinger TG, Jia QX, Kreiskott S, Stan L, Coulter JY. IBAD MgO Templates for YBCO Coated Conductors. Proc. 11th Japan-US Workshop on High-TcSuperconductors. 2004;80.

Jia QX, Foltyn SR, Arendt PN, Holesinger T, Groves JR, Hawley M. Growth and Characterization of $SrRuO_3$ Buffer Layer on MgO Template for Coated Conductors. IEEE Trans. Appl. Supercond. 2003;13(2):2655–2657.

Paranthaman MP, Aytug T, Kang S, Feenstra RM, Budai JD, Christen DK, Arendt PN, Stan L, Groves JR, DePaula RF. Fabrication of High Jc $YBa_2Cu_3O_{7-\delta}$ Tapes Using Lanthanum Manganate Single Buffer Layers. IEEE Trans.Appl. Supercond. 2003;13(2):2481–2483.

Brewer RT, Atwater HA, Groves JR, Arendt PN. Reflection High-Energy Electron Diffraction Experimental Analysis of Polycrystalline MgO Films with Grain Size and Orientation Distributions. J. Appl. Phys. 2003;93(1):205–210.

Fitzsimmons MR, Leighton C, Nogues J, et al. Influence of In-Plane Crystalline Quality of an Antiferromagnet on Perpendicular Exchange Coupling and Exchange Bias. Phys. Rev. B. 2002;65(13):134436.

Brewer RT, Hartman JW, Groves JR, Arendt PN, Yashar PC, Atwater HA. RHEED In-Plane Rocking Curve Analysis of Biaxially-Textured Polycrystalline MgO Films on Amorphous Substrates Grown by Ion Beam-Assisted Deposition.Appl. Surf. Sci. 2001;175–176:691–696.

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Holesinger TG, Foltyn SR, Arendt PN, Jia QX, Dickerson RM, Dowden PC, DePaula RF, Groves JR, Coulter JY. Comparison of Buffer Layer Architectures on Continuously Processed YBCO Coated Conductors Based on IBADYSZ Process. IEEE Trans. Appl. Supercond. 2001;11(1):3359–3364.

Foltyn SR, Arendt PN, DePaula RF, Dowden PC, Coulter JY, Groves JR, Haussamen LN, Winston LP, Jia QX, Maley MP. Development of Meter-Long YBCO Coated Conductors Produced by IBAD and PLD. Physica C.2000;341(4):2305–2308.

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Jiang H, Hu W, Liang S, Fouflyguine V, Zhao J, Jia QX, Groves JR, Arendt P, Miranda F, Drehman A, Wang S, Yip P. High Quality $BaxSr_{1-x}TiO_3$ Films and Dual-Tuning Microwave Structures. Integr. Ferroelectr. 2000;29(1–2):63–79.

Selvamanickam V, Galinski GB, Carota G, DeFrank J, Trautwein C, Haldar P, Balachandran U, Chudzik M, Coulter JY, Arendt PN, Groves JR, DePaula RF, Newnam BE, Peterson DE. High-Current YBCO Films by MOCVD onFlexible Metal Substrates. Physica C. 2000;333(3–4):155–162.

Holesinger TG, Foltyn SR, Arendt PN, Kung H, Jia QX, Dickerson RM, Dowden PC, DePaula RF, Groves JR, Coulter JY. Microstructure of YBCO Coated Conductors with CeO_2 and IBAD YSZ Buffer Layers. J. Mater. Res.2000;15(5):1110–1119.

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Peterson EJ, Arendt PN, Coulter JY, Dowden PC, Foltyn SR, Groves JR, Hults WL, Smith JL, Willis JO. XRD Analysis of YBCO Superconducting Film. Impact of Recent Advances in Processing of Ceramic Superconductors.1998;83.

Jia QX, Groves JR, Arendt P, Fan Y, Findikoglu AT, Foltyn SR. Integration of Nonlinear Dielectric BST with Polycrystalline YIG for Dual-Tuning Microwave Devices. Appl. Phys. Lett. 1999;74(11):1564–1566.

Foltyn SR, Arendt PN, Dowden PC, DePaula RF, Groves JR, Coulter JY, Jia QX, Maley MP, Peterson DE. Performance of Meter-Long YBCO/IBAD Flexible Tapes. IEEE Trans. Appl. Supercond. 1999;9(2):1519–1522.

Jia QX, Arendt PN, Groves JR, Fan Y, Roper JM, Foltyn SR. Role of IBAD YSZ on Properties of RuO_2 and SiO_2/Si. J. Mater. Res. 1998;13(9):2461–2464.

Jia QX, Roper JM, Arendt PN, Foltyn SR, Fan Y, Groves JR. Oriented Conductive Oxide Electrodes on SiO_2/Si. Integr. Ferroelectr. 1998;21:397–406.

Jia QX, Findikoglu AT, Arendt PN, Foltyn SR, Roper JM, Groves JR, Coulter JY. Superconducting YBCO Thin Films on Polycrystalline Ferrite for Tunable Microwave Components. Appl. Phys. Lett. 1998;72(14):1763–1765.

Arendt PN, Foltyn SR, Groves JR, DePaula RF, Dowden PC, Roper JM, Coulter JY. YBCO/YSZ Coated Conductors on Flexible Ni Alloy Substrates. Appl. Supercond. 1998;4(10–11):429–434.

Jia QX, Arendt PN, Kwon C, Roper JM, Fan Y, Groves JR, Foltyn SR. Biaxially Oriented Conductive $La_{0.5}Sr_{0.5}CoO_3$ Thin Films on SiO_2/Si. J. Vac. Sci. Technol. A. 1998;16(3):1380–1383.

Findikoglu AT, Foltyn SR, Arendt PN, Groves JR, Jia QX, Peterson EJ, Maley MP, Reagor DW. Power-Dependent Microwave Properties of YBCO Films on Buffered Polycrystalline Substrates. Appl. Phys. Lett. 1997;70(24):3293–3295.

Foltyn SR, Arendt PN, Dowden PC, Groves JR, Coulter JY, Peterson EJ. Continuous Processing of YBCO/IBAD Coated Conductors on Flexible Substrates. Proc. Int. Workshop on Superconductivity. 1997.

Presentations

Invited Presentations

Groves JR, Hammond RH, DePaula RF, Clemens BM. Investigation of Early Nucleation Events in Magnesium Oxide During Ion Beam Assisted Deposition. Poster presentation, Symposium RR: Artificially Induced Grain Alignment inThin Films, MRS Fall Meeting, Boston, MA, December 1–5, 2008.

Groves JR, Arendt PN, Usov I, Stan L, DePaula RF. Ion Damage Anisotropy Investigations of MgO Crystals. Poster presentation, Symposium RR: Artificially Induced Grain Alignment in Thin Films, MRS Fall Meeting, Boston, MA,December 1–5, 2008.

Groves JR, Arendt PN, Foltyn SR, DePaula RF, Dowden PC, Stan L. IBAD Template Layers for HTS Coated Conductors: Issues and Current Status at LANL. Oral presentation, MRS International Workshop on Processing andApplications of Superconductors, Gatlinburg, TN, July 31–August 2, 2002.

Groves JR, Arendt PN, Foltyn SR, Jia QX, Holesinger TG, Kung H, DePaula RF, Dowden PC, Peterson EJ, Stan L, Emmert LA. Recent Progress in IBAD MgO Template Meter HTS Performance at LANL. Oral presentation, 10thAnnual US-Japan Workshop on High-Tc Superconductors, Santa Fe, NM, December 2–5, 2001.

Groves JR, Arendt PN, Foltyn SR, Jia QX, Holesinger TG, Kung H, DePaula RF, Dowden PC, Peterson EJ, Stan L, Emmert LA. Development of the IBAD MgO Process for HTS Coated Conductors. Oral presentation, InternationalWorkshop on Superconductivity, Honolulu, HI, June 24–27, 2001.

Conference Presentations

Groves JR, Hammond RH, Matias V, DePaula RF, Stan L, Clemens BM. The Effect of Nucleation Layers on Biaxial Texture Development in IBAD MgO. Oral presentation, Symposium DD: Artificially Induced Crystalline Alignment,Thin Films and Nanostructures, MRS Fall Meeting, Boston, MA, November 30–December 1, 2010.

Groves JR, Matias V, DePaula RF, Stan L, Hammond RH, Clemens BM. Optimization of Ion Assist Beam Deposition of Magnesium Oxide Template Films During Initial Nucleation and Growth. Oral presentation, Symposium L: RecentAdvances in High-Temperature Superconductivity, MRS Spring Meeting, San Francisco, CA, April 6–9, 2010.

Groves JR, Hayes GJ, Li JB, DePaula RF, Hammond RH, Salleo A, Clemens BM. Biaxial Texturing of Inorganic Photovoltaic Thin Films Using Low Energy Ion Beam Irradiation During Growth. Oral

presentation, Symposium A:Amorphous and Polycrystalline Thin-Film Silicon Science and Technology, MRS Spring Meeting, San Francisco, CA,April 6–9, 2010.

Clemens BM, Groves JR, Hayes GJ. Thin Film Seed Layer Deposition for Photovoltaic Materials. Oral presentation, Stanford Photonics Research Center Workshop: Inorganic Thin Film PV Materials Toward Grid Parity, StanfordUniversity, CA, March 14, 2009.

Groves JR, Hammond RH, DePaula RF, Stan L, Clemens BM. Ion-Beam Texturing at Nucleation – Manipulation of Crystallographic Orientation in Cubic Materials at the Nanometer Scale. Oral presentation, Symposium DD: IonBeams and Nano-Engineering, MRS Spring Meeting, San Francisco, CA, April 14–17, 2009.

Groves JR, Clemens BM, Holesinger TG, Stan L, DePaula RF, Hammond RH. Fundamental Aspects of Ion Beam Assisted Deposition of Magnesium Oxide Template Films. Oral presentation, Applied Superconductivity Conference,Chicago, IL, August 17–22, 2008.

Groves JR, Arendt PN, Foltyn SR, DePaula RF, Dowden PC, Peterson EJ, Kung H, Smith JF, Jia QX, Holesinger TG. Analysis and Performance of IBAD MgO Template Films Used for Second Generation YBCO CoatedConductors. Oral presentation, Applied Superconductivity Conference, Virginia Beach, VA, September 2000.

Groves JR, Arendt PN, Foltyn SR, DePaula RF, Dowden PC, Peterson EJ, Peterson DE, Springer RW, Hammond RH, Wang CP. Ion-Beam Assisted Deposition of Biaxially Aligned Magnesium Oxide Template Films for Yttrium-Barium-Copper-Oxide Coated Conductors. Oral presentation, Applied Superconductivity Conference, Palm Desert,CA, September 1998.

Groves JR, Arendt PN, DePaula RF, Peterson EJ. LANL Progress on IBAD MgO for 3M CRADA. Oral presentation, 3M CRADA Quarterly Meeting, Los Alamos, NM, September 28, 1998.

Advisory Appointments

Member of Advisory Board, Department of Materials Science and Engineering, New Mexico Tech

Editorships & Editorial Review Boards

Editor, IEEE Transactions on Applied Superconductivity, 2001

Peer Reviews

IEEE Transactions on Applied Superconductivity

MRS Proceedings