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EDUCATION:

MBA, 1998, Idaho State University

Ph.D., 1982, Metallurgical Engineering, Michigan Technological University

M.S., 1978, Metallurgical Engineering, Michigan Technological University

B.S., 1976, Metallurgical Engineering, Michigan Technological University

CLEARANCE:

DOE "Q"

EMPLOYMENT:

Distinguished Staff Scientist, Materials Science and Engineering Department,
07/2005 – present

High Temperature Materials Lead NGNP Technology Development Office
10/2007 - present
Idaho National Laboratory, Idaho Falls ID

Department Manager Materials Science Department, Idaho National Laboratory, Idaho Falls, ID
06/2000 – 06/2005.

Principal Scientist and Technical Leader for Physical Metallurgy, Materials Department, Idaho National Engineering and Environmental Laboratory
07/1993-06/2000

Scientific Specialist and Technical Leader for Physical Metallurgy, Materials Technology Group, Idaho National Engineering Laboratory, EG&G Idaho, Inc., Idaho Falls, ID.
03/1988-07/1993

Senior Scientist, Materials Technology Group, Idaho National Engineering Laboratory, EG&G Idaho, Inc.,
Idaho Falls, ID.
03/1985-03/1988

Visiting Instructor, Michigan Technological University, Houghton, MI.
08/1983-02/1985

Postdoctoral Research Associate, Department of Engineering Materials, University of Luleå, Luleå, Sweden.
08/1982-07/1983

SIGNIFICANT ACTIVITIES:

Technical Lead Next Generation Nuclear Plant High Temperature Metals Research and Development Program, 10/2007 – present

INL Laboratory Coordinator, DOE Office of Basic Energy Science, Division of Materials Science and Engineering
06/2007 – present

Principal Investigator, "Environmental and Aging Effects on Very High Temperature Reactor Materials", 10/2006-09/2007.

US Principal Investigator, "Elevated Temperature Mechanical Properties and Environmental Effects on VHTR Intermediate Heat Exchanger Alloys", US/France International Nuclear Energy Research Initiative (I-NERI), 10/2007-09/2009.

Principal Investigator, "Thermomechanical Processing of Iron Aluminides", funded through US Department of Energy Advanced Fossil Energy Materials Program, 10/1987 – 09/2007.

Part-time Detailee to DOE Office of Science, Division of Materials Science and Engineering, 04/2006-04/2007.

Co-Principal Investigator, "Design and Materials Demonstration for a Supercritical CO₂ Generation IV Reactor", funded through US Department of Energy Nuclear Energy Research Initiative, 11/2002 –09/2005.

Principal Investigator, "Influence of Impurities on Microstructural Evolution of Rapidly Solidified Materials", funded through US Department of Energy, Office of Basic Energy Sciences, Materials Science Division, 06/1988 – 09/1998.

Collaborator, Center for Synthesis and Processing Project, "Ultra-High Temperature Intermetallics", funded through US Department of Energy, Office of Basic Energy Sciences, Materials Science Division, 10/1997 – 9/2001.

Co-Principal Investigator, "Corrosion and Aging", funded through US Department of Energy, Environmental Systems Research Program, 02/1998-09/2001.

Principal Investigator, "Ceramic Coatings for Environmental Applications", funded through US Department of Energy, Environmental Systems Research Program, 02/1998-09/2001.

Principal Investigator, "Wear and Erosion Resistant Intermetallic Compounds", funded through US Department of Interior, Bureau of Mines Strategic and Critical Materials Program, 10/1988 - 04/1992.

PROFESSIONAL ACTIVITIES:

Member of the Materials Science Department Industrial Advisory Board (Chairman from 2006-2008), Boise State University

Member of the Colorado School of Mines Materials Science Visiting Committee

Affiliated Graduate Faculty Boise State University Materials Science and Engineering Department and Massachusetts Institute of Technology Nuclear Engineering Department

Member of the Scientific Advisory Board for OECD/NEA Workshop on Structural Materials for Innovative Nuclear Systems (SMINS), 31 Aug – 3 Sep 2010 Daejon, Korea

Member of Board of Directors of The Minerals, Metals and Materials Society (TMS) and Chair of the Programming Committee 2002-2006

Recipient of the 2007 Distinguished Service Award from TMS Materials Processing and Manufacturing Division

US Chairman and Co-Editor of Proceedings for the Forth Pacific Rim International Conference on Advanced Materials, 2001.

Co-Chair of the Materials Science and Technology Conference 2004 and 2008

PUBLICATIONS:

1. "Cavitation-induced Erosion of Ordered and Disordered Cu₃Au", R. N. Wright and D. E. Mikkola, *Materials Science and Engineering*, vol. 26, p. 263, 1976.
2. "Deformation Twinning: Time Dependence and Associated Strengthening Effects in Shock Loaded Cu-8.7Ge", R. N. Wright and D. E. Mikkola, *Materials Science and Engineering*, vol. 53, p. 273, 1982.
3. "Influence of Crystallography Upon Critical Nucleus Shapes and Kinetics of Homogeneous FCC-FCC Nucleation V. The Origin of GP Zones in Al-Ag and Al-Cu Alloys", F. K. LeGoues, R. N. Wright, Y. W. Lee, and H. I. Aaronson, *Acta Metallurgica*, vol. 32, p. 1865, 1984.
4. "High Strain Rate Deformation of Mo and Mo-33Re by Shock Loading I. Substructure Development", R. N. Wright and D. E. Mikkola, *Metallurgical Transactions*, vol. 16A, p. 881, 1985.
5. "High Strain Rate Deformation of Mo and Mo-33Re by Shock Loading II. Rates of Defect Generation and Accumulation of Plastic Strain", R. N. Wright and D. E. Mikkola, *Metallurgical Transactions*, vol. 16A, p. 891, 1985.
6. "Substructural Strengthening in Mo and Mo-33Re", R. N. Wright, J. A. Brusso and D. E. Mikkola, *Materials Science and Engineering*, vol. 73, p. 151, 1985.
7. "Microstructure and Bonding of Dynamically Consolidated Al and Al-1.4Co Powders", R. N. Wright, T. E. Doyle, J. E. Flinn and G. E. Korth, *Materials Science and Engineering*, vol. 94, p. 225, 1987.
8. "Dynamic Consolidation of Stainless Steel Powder in Gas Gun Experiments", J. E. Flinn, R. L. Williamson, R. A. Berry, R. N. Wright and Y. Gupta, *Journal of Applied Physics*, vol. 64, p. 1446, 1988.
9. "Submicron Defects in Rapidly Solidified Type 304 Stainless Steel Powders Containing Noble Gases", J. C. Bae, T. F. Kelly, J. E. Flinn and R. N. Wright, *Scripta Metallurgica*, vol. 22, p. 691, 1988.
10. "Microstructure and Phase Relationships in Rapidly Solidified Type 304 Stainless Steel Powders", R. N. Wright, J. C. Bae, T. F. Kelly, J. E. Flinn and G. E. Korth, *Metallurgical Transactions*, vol. 19A, p. 2399, 1988.
11. "Elevated Temperature Tensile Properties of Powder Metallurgy Ni₃Al Alloyed With Cr and Zr", R. N. Wright and V. K. Sikka, *Journal of Materials Science*, vol. 23, p. 4315, 1988.
12. "A Study of the Several Contributions to Substructural Strengthening in Mo-33Re Rolled to Large Strains", R. N. Wright, J. A. Brusso and D. E. Mikkola, *Materials Science and Engineering*, vol. 104, p. 85, 1988.
13. "Consolidation of Ni₃Al Powders by Hot Isostatic Pressing", R. N. Wright, B. H. Rabin and J. R. Knibloe, *Advanced Materials and Manufacturing Processes*, vol. 4, p. 25, 1989.
14. "Particle Deformation, Bonding and Annealing Response of Explosively Consolidated Type 304 Stainless Steel Powders", R. N. Wright, G. E. Korth and J. E. Flinn, *Metallurgical Transactions*, vol. 20A, p. 2449, 1989.
15. "Age Hardening Behavior of Dynamically Consolidated Rapidly Solidified Cu-2%Zr", R. N. Wright and I. E. Anderson, *Materials Science and Engineering*, vol. 114A, p. 167, 1989.
16. "Numerical Simulation of Dynamic Consolidation of a SiC Fiber Reinforced Aluminum Composite", R. L. Williamson, R. N. Wright, B. H. Rabin and G. E. Korth, *Journal of Applied Physics*, vol. 66, p. 1826, 1989.
17. "TEM Observations on the Microstructure of an Atomized High Purity Aluminum Powder", B. H.

- Rabin, R. N. Wright, J. E. Flinn and J. B. Adams, *Journal of Materials Science Letters*, vol. 8, p. 1408, 1989.
- 18. "The Influence of Alloying on Microstructure and Mechanical Properties of P/M Ni₃Al", R. N. Wright and J. R. Knibloe, *Acta Metallurgica*, vol. 38, p. 1993, 1990.
 - 19. "Cavitation Erosion and Abrasive Wear Resistance of Nickel and Iron Aluminides", M. Johnson, D. E. Mikkola, P. A. March and R. N. Wright, *Wear*, vol. 140, p. 279, 1990.
 - 20. "Modeling of Hot Isostatic Pressing Applied to Ni₃Al Powder", R. N. Wright, R. L. Williamson and J. R. Knibloe, *Powder Metallurgy*, vol. 33, p. 253, 1990.
 - 21. "Synthesis of Iron Aluminides from Elemental Powders: Reaction Mechanisms and Densification Behavior", B. H. Rabin and R. N. Wright, *Metallurgical Transactions*, vol. 22A, p. 277, 1991.
 - 22. "A Containerless-Melting Twin Roller Melt Spinning System", R. N. Wright, G. E. Korth and C. H. Sellers, *Review of Scientific Instruments*, vol. 61, p. 3924, 1990.
 - 23. "Accelerated Helium Bubble Growth in Aluminum in the Presence of Lead", R. N. Wright, C. D. Van Siclen, M. E. Mossel and S. G. Usmar, *Journal of Nuclear Materials*, vol. 182, p. 281, 1991.
 - 24. "Consolidation of NiAl Powders Using Hot Isostatic Pressing", R. N. Wright, J. R. Knibloe and R. D. Noebe, *Materials Science and Engineering*, vol. 141A, p. 79, 1991.
 - 25. "Microstructure and Mechanical Properties of Fe₃Al Produced by Combustion Synthesis", B. H. Rabin and R. N. Wright, *Metallurgical Transactions*, vol. 23A, p. 35, 1992.
 - 26. "Particle-Level Investigation of Densification During Uniaxial Hot Pressing: Continuum Model and Experiments", R. L. Williamson, J. R. Knibloe and R. N. Wright, *Journal of Engineering Materials and Technology*, vol. 114, p. 105, 1992.
 - 27. "Positron Lifetime Measurements of Pure and Carbon Doped Melt-Spun Aluminum Ribbons", S. G. Usmar and R. N. Wright, *Materials Science Forum*, vol. 105, p. 1305, 1992.
 - 28. "A Positron Lifetime Study of Si-Doped Vacuum Melt-Spun Al", S. G. Usmar and R. N. Wright, *Materials Science Forum*, vol. 105, p. 1309, 1992.
 - 29. "Positron Annihilation and TEM Studies of the Influence of Lead on Helium Bubble Growth in High Purity Al", S. G. Usmar and R. N. Wright, *Physical Review B*, vol. 46, p. 69, 1992.
 - 30. "Submicrostructural and Microstructural Evolution of Pure and Oxygen Contaminated Vacuum Melt-Spun Al and Al Doped with Carbon", S. G. Usmar and R. N. Wright, *Journal of Materials Science*, vol. 27, p. 5916, 1992.
 - 31. "Reaction Processing of Iron Aluminides", B. H. Rabin, R. N. Wright, J. R. Knibloe, R. V. Raman and S. V. Rale, *Materials Science and Engineering*, vol. A152, p. 706, 1992.
 - 32. "Elevated Temperature Behavior of Fe₃Al with Cr Additions", J. R. Knibloe, R. N. Wright, V. K. Sikka, R. H. Baldwin and C. R. Howell, *Materials Science and Engineering*, vol. A153, p. 382, 1992.
 - 33. "Microstructure and Mechanical Properties of Fe₃Al Alloys with Cr", J. R. Knibloe, R. N. Wright and V. K. Sikka, *Journal of Materials Science*, vol. 28, p. 2040, 1993.
 - 34. "Combustion Synthesis of Cubic Al₃Ti", R. N. Wright, B. H. Rabin and W. H. McFerran, *Journal of Materials Research*, vol. 7, p. 1, 1992.
 - 35. "Anomalous Helium Bubble Diffusion in Aluminum Alloys", C. DeW. Van Siclen, R. N. Wright and S. G. Usmar, *Physical Review Letters*, vol. 68, p. 3892, 1992.
 - 36. "Enhanced Diffusion of Liquid-Coated Gas Bubbles in Solids", C. DeW. Van Siclen and R. N. Wright, *Philosophical Magazine*, vol. 67, p. 1, 1993.
 - 37. "Enhanced Helium Bubble Diffusion in Aluminum Containing a Liquid Metal Impurity", R. N. Wright, C. DeW. Van Siclen and S. G. Usmar, *Journal of Nuclear Materials*, vol. 200, p. 200, 1993.
 - 38. "Combustion Synthesized Iron Aluminide Coatings and Joints", J. K. Wright, R. N. Wright and G. A. Moore, *Scripta Metallurgica et Materialia*, vol. 28, p. 501, 1993.
 - 39. "Microstructure and Properties of Iron Aluminides Produced from Elemental Powders" B. H. Rabin and R. N. Wright, *International Journal of Self-Propagating High-Temperature Synthesis*, vol. 1, p. 305, 1992.
 - 40. "Characterization of Al₂Ti Precipitates in Cubic Al_{64.5}Ti_{27.5}Cr₈", R. N. Wright, A. E. Erickson, M. H. O'Brien and B. H. Rabin, *Scripta Metallurgica et Materialia*, vol. 28, p. 1293, 1993.

41. "In Situ Observations of Helium Bubble Interactions with Dislocations", R. N. Wright and C. DeW. Van Siclen, *Journal of Nuclear Materials*, vol. 206, p. 87, 1993.
42. "Electrical Resistance Analysis of the DO₃ to B2 Transition in Alloys of Fe₃Al", T. G. Hyde, C. H. Sellers, J. K. Wright and R. N. Wright, *Scripta Metallurgica et Materialia*, vol. 30, p. 113, 1994.
43. "Phase Transformations in Fe₃Al + Ti Alloys", C. H. Sellers, T. G. Hyde, T. O'Brien and R. N. Wright, *Journal of the Physics and Chemistry of Solids*, vol. 55, p. 505, 1994.
44. "Grain Growth Behavior of Fe₃Al Fabricated by Different Methods", B. H. Rabin, R. N. Wright, J. K. Wright and C. H. Sellers, *Journal of Materials Research*, vol. 9, p. 1384, 1994.
45. "Cavitation Erosion and Abrasive Wear of Ni₃Al Alloys", M. L. Johnson, D. E. Mikkola and R. N. Wright, *Intermetallics*, vol. 3, p. 389, 1995.
46. "Microstructure and Elevated Temperature Mechanical Properties of Reaction Synthesized Fe₃Al", C. R. Clark, R. N. Wright, J. K. Wright and B. H. Rabin, *Scripta Metallurgica et Materialia*, vol. 32, p. 1883, 1995.
47. "The Influence of Helium on Grain Growth of High Purity Aluminum", R. N. Wright and S. G. Usmar, *Journal of Materials Science Letters*, vol. 15, p. 1400, 1996.
48. "Solute Redistribution by a Migrating Grain Boundary", T. M. Lillo, C. DeW. Van Siclen and R. N. Wright, *Scripta Metallurgica et Materillia*, vol. 38, p. 1659, 1998.
49. "Creep Behavior of an Oxide Dispersion Strengthened Iron Aluminide", R. N. Wright, M. T. Anderson, and J. K. Wright, *Materials Science and Engineering*, vol. A258, p. 285, 1998.
50. "Processing and Mechanical Properties of a Molybdenum Silicide with the Composition Mo-12Si-8.5B", J. H. Schneible, M. J. Kramer, O. Unal and R. N. Wright, *Intermetallics*, vol. 9, p. 25, 2001.
51. "Microstructure and Stresses in HVOF-Sprayed Iron Aluminide Coatings", T. C. Totemeier, R. N. Wright and W. D. Swank, *Journal of Thermal Spray Technology*, vol. 11, p. 400, 2002.
52. "Corrosion of Thermal Spray Hastelloy C-22 Coatings in Dilute HCl", T. E. Lister, R. N. Wright, P. J. Pinhero and W. D. Swank, *Journal of Thermal Spray Technology*, vol. 11, p. 530, 2002.
53. "Mechanical Properties of HVOF Sprayed Iron Aluminide Coatings", T. C. Totemeier, R. N. Wright and W. D. Swank, *Metallurgical and Materials Transactions A*, vol. 34A, p. 2223, 2003.
54. "FeAl and Mo-Si-B Coatings Prepared by Thermal Spraying", Terry C. Totemeier, Richard N. Wright and W. David Swank, *Intermetallics*, vol. 12, p. 1335, 2004.
55. "Measurement and Control of Residual Stresses in Metallic HVOF Coatings", Terry C. Totemeier and Richard N. Wright, *Metallurgical and Materials Transactions A*, vol. 35A, p. 1807, 2004.

CONFERENCE PROCEEDINGS AND NON-REVIEWED JOURNALS:

1. "Short Duration Shock Pulses as a Tool to Study the Time Dependence of Plastic Deformation", R. N. Wright, S. LaRouche and D. E. Mikkola, *Shock Waves and High-Strain-Rate Phenomena*, M. A. Meyers and L. E. Murr eds., Plenum Pub., New York, p. 703, 1981.
2. "Metallurgical Effects of Shock Loading", D. E. Mikkola and R. N. Wright, *Shock Waves in Condensed Matter*, W. J. Nellis, L. Seaman, and R. A. Graham, eds., American Institute of Physics, New York, p. 98, 1982.
3. "Hydrogen Embrittlement of Iron Alloys Containing an Oxide Dispersion", R. N. Wright and K. E. Easterling, *Proceedings 3rd Scandinavian Symposium on Materials Science*, Oulu University Press, Oulu, Finland, p. 259, 1983.
4. "Dislocation Generation and Its Relation to the Dynamic Plastic Response of Shock Loaded Metals", D. E. Mikkola and R. N. Wright, *Proceedings 3rd APS Topical Conference on Shock Waves in Condensed Matter*, North-Holland Pub., Amsterdam, 1983.
5. "Substructural Changes as a Function of Pulse Duration in Mo-33Re Shocked at Low Temperatures", J. A. Brusso, R. N. Wright and D. E. Mikkola, *Proceedings International Conference on Metallurgical Applications of Shock Waves and High-Strain-Rate Phenomena*, 1986, p. 403.
6. "Dynamic Consolidation of Aluminum Powders", J. E. Flinn, G. E. Korth, R. N. Wright and R. C. Green, *Proceedings 4th APS Topical Conference on Shock Waves in Condensed Matter*, 1986, p. 713.

7. "Microstructural Characterization of Rapidly Solidified Type 304 Stainless Steel Powder", R. N. Wright, J. E. Flinn and G. E. Korth, Proceedings MRS Symposia on Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties, 1986, p. 437.
8. "Consolidation Methods for Rapidly Solidified Type 304 Stainless Steel Powder", R. N. Wright, J. E. Flinn and G. E. Korth, Metal Powder Report, vol. 41, p. 281, 1986.
9. "Microstructures in Explosively Consolidated Rapidly Solidified Aluminum Powders", T. E. Doyle, R. N. Wright, J. Flinn and G. E. Korth, Proceedings 44th EMSA Meeting, p. 428, 1986.
10. "Thermal and Mechanical Behavior of a Rapidly Solidified 9%Cr Alternative to Type 304 Stainless Steel", G. E. Korth, R. N. Wright and J. E. Flinn, Enhanced Properties in Structural Metals via Rapid Solidification, ASM, p. 469, 1986.
11. "Tensile Properties of Extrusion Consolidated Type 304 Stainless Steel Powders", J. E. Flinn, G. E. Korth and R. N. Wright, Enhanced Properties in Structural Metals via Rapid Solidification, ASM, p. 459, 1986.
12. "Consolidation of Rapidly Solidified Nickel Aluminide Powders", R. N. Wright and J. E. Flinn, Proceedings Fossil Energy Materials Conference, Oak Ridge, TN, p. 734, 1987.
13. "Microstructure and Mechanical Properties of Hot Isostatically Pressed Nickel Aluminides", R. N. Wright and J. E. Flinn, Proceedings of the International Conference on Hot Isostatic Pressing, T. Garvare, ed., Lulea, Sweden, 1987, p. 225.
14. "Dynamic Consolidation of Rapidly Solidified Powders", R. N. Wright, G. E. Korth and J. E. Flinn, Advanced Materials and Processes, vol. 132, p. 56, 1987.
15. "The Influence of Consolidation Method on the Structure/Properties of Rapidly Solidified Type 304 Stainless Steel Powders", J. E. Flinn, G. E. Korth and R. N. Wright, Rapidly Solidified Materials: Processing and Properties, P. W. Lee and J. H. Moll, eds., ASM International, Metals Park OH, 1988, p. 156.
16. "Characterization of an Explosively Consolidated Rapidly Solidified Fe-16Ni-9Cr-5Mo-2Cu Alloy Powder", G. E. Korth, J. E. Flinn and R. N. Wright, Rapidly Solidified Materials: Processing and Properties, P. W. Lee and J. H. Moll, eds., ASM International, Metals Park OH, 1988, p. 177.
17. "Substructural Strengthening in Mo-33Re Rolled to Large Strain", J. A. Brusso, D. E. Mikkola and R. N. Wright, Proceedings of the 8th International Conference on the Strength of Metals and Alloys, P.O. Kettunen, T. K. Lepisto and M. E. Lehtonen, eds., p. 521, 1988.
18. "Thermal Spraying of Superconducting Ceramics", D. J. Varacalle, K. L. Telschow, R. N. Wright and J. C. Debsikdar, Thermal Spray Technology - Proceedings of the 1988 ASM National Thermal Spray Conference, p. 211, 1989. (Best Paper Award for session at Conference).
19. "A Particle Level Numerical Simulation of the Dynamic Consolidation of a Metal Matrix Composite Material", R. L. Williamson and R. N. Wright, Proceedings 1989 APS Topical Conference on Shock Waves in Condensed Matter.
20. "Microstructure and Mechanical Properties of P/M Fe₃Al Alloys", J. R. Knibloe, R. N. Wright and V. K. Sikka, Advances in Powder Metallurgy 1990 Vol. 2, MPIF, Pittsburgh, PA, 1990, p. 219.
21. "Powder Processing of Fe₃Al Based Iron Aluminide Alloys", V. K. Sikka, J. H. Reinshagen, J. R. Knibloe and R. N. Wright, High Temperature Intermetallics IV, Materials Research Society, 1991, p. 901.
22. "The Influence of Thermomechanical Processing on Microstructure and Properties of Fe₃Al Alloys" R. N. Wright, Proc. 4th Conference on Fossil Energy Materials, Oak Ridge, TN, 1990, p. 231.
23. "Dynamic Consolidation of Tungsten Wire Bundles", G. E. Korth, R. L. Williamson, R. N. Wright and B. H. Rabin, Proc. TMS Symposium Tungsten and Tungsten Alloys - Recent Advances, A. Crowson and E. S. Chen, eds., 1991, p. 61.
24. "Microstructure and Properties of Iron Aluminides", R. N. Wright, CIM Symposium on Advances in High Temperature Structural Materials and Protective Coatings, A. K. Koul, et al., eds., 1991, p. 296.
25. "The Influence of Processing Atmosphere on Twin-roll Melt-Spinning of Aluminum Alloys", C. H. Sellers, K. S. Aldrich, M. M. Cortez and R. N. Wright, Proceedings TMS Symposium on Melt-Spinning and Strip Casting: Research and Implementation, E. F. Matthys, ed., 1992, p. 213.

26. "Elemental Powder Processing of Iron Aluminides", R. N. Wright and B. H. Rabin, to be published in Proceeding 1992 International Powder Metallurgy Congress, San Francisco, CA, 1992.
27. "Combustion Synthesis of Cubic Cr-Modified Al_3Ti ", R. N. Wright and B. H. Rabin, Proceedings International Conference on Advanced Synthesis of Engineered Structural Materials, J. J. Moore et al., eds, 1992, p. 37.
28. "Influences of Alloying on Abrasive Wear and Cavitation Erosion Behavior of Fe_3Al Based Alloys", M. L. Johnson, D. E. Mikkola and R. N. Wright, Proceedings TMS Symposium on Processing and Properties of Iron Aluminides, J. H. Schneibel and M. A. Crimp, eds., 1994, p. 311.
29. "Processing Iron Aluminides by Reaction Synthesis", J. K. Wright and R. N. Wright, Pro. TMS Symposium on Processing and Properties of Iron Aluminides, J. H. Schneibel and M. A. Crimp, eds., 1994, p. 47.
30. "The Influence of Processing Parameters on Microstructure and Properties of Fe_3Al Based Coatings", R. N. Wright, J. R. Fincke, D. W. Swank, D. C. Haggard and C. R. Clark, Elevated Temperature Coatings: Science and Technology, N.B. Dahotre et al., eds., 1995, p. 157.
31. "Phase Transformations in Fe_3Al Alloyed with Ti and Cr", R. N. Wright, J. K. Wright, C. H. Sellers, T. A. Hyde and T. K. O'Brien, Proceedings TMS Symposium on Mechanical Properties and Phase Transformations in Mult-Component Intermetallics, A. F. Giamei, et al., eds, 1995, p. 49.
32. "Processing Influences on Elevated Temperature Properties of Reaction Synthesized Fe_3Al ", T. M. Lillo, R. N. Wright, J. K. Wright and B. H. Rabin, Proceedings of the International Conference on Heat Resistant Materials, 1995, p. 579.
33. "Experimental and Finite Element Modeling Investigation of Residual Stresses Resulting from the Thermal Spray Process", J. K. Wright, J. R. Fincke, R. N. Wright, W. D. Swank and D. C. Haggard, Proceedings National Thermal Spray Conference, 1995, p. 187.
34. "Plasma Processing of Functionally Graded Materials: Diagnostics and Characterization", W. Smith, T. J. Jewett, S. Sampath, C.C. Berndt, H. Herman, J. R. Fincke, and R. N. Wright, Proceedings National Thermal Spray Conference, C. C. Berndt, ed., 1996, p. 317.
35. "Particle Velocity and Temperature Influences on the Microstructure of Plasma Sprayed Nickel", R. N. Wright, J. R. Fincke, W. D. Swank, and D. C. Haggard, Proceedings National Thermal Spray Conference, C. C. Berndt, ed., 1996, p. 511.
36. "Microstructure and Properties of an ODS Iron Aluminide", R. N. Wright and M. T. Anderson, Proceedings Iron Aluminides: Alloy Design, Processing, Properties and Applications, S.C. Deevi et al., eds., 1998.
37. "Irradiation of Microbes from Spent Nuclear Fuel Storage Pool Environments", D. F. Bruhn, C. R. Breckenridge, M. N. Tsang, C. S. Watkins, W. E. Windes, R. N. Wright and P. J. Pinhero, Proceedings of the ANS Global '99 Conference.
38. "Microstructure Effects in Stainless Steel Substrates from Deposition of Plasma Spray Ceramic Coatings", R. N. Wright and W. D. Swank, Proceedings of the International Thermal Spray Conference, ASM International, p. 363, 2000.
39. "Residual Stress Measurement from a Laser-Based Curvature Measurement", W. D. Swank, R. A. Gavalya, J. K. Wright and R. N. Wright, Proceedings of the International Thermal Spray Conference, ASM International, p. 423, 2000.
40. "FeAl and Mo-Si-B Intermetallic Coatings Prepared by Thermal Spraying", 18th Annual Fossil Energy Materials Conference, National Energy Technology Laboratory, Pittsburgh, PA, 2004.
41. "Coating Microstructure-Property-Performance Issues", 19th Annual Fossil Energy Materials Conference, National Energy Technology Laboratory, Pittsburgh, PA, 2005.
42. "Microstructure and Properties of HVOF Sprayed Ni-50Cr Coatings" 20th Annual Fossil Energy Materials Conference, National Energy Technology Laboratory, Pittsburgh, PA, 2006.
43. "Environmental Effects of VHTR Helium on Intermediate Heat Exchanger Materials", ANS Annual Meeting, Reno NV, 2006.
44. "High Temperature Materials Engineering Issues for Very high Temperature Reactors", Proceedings of High Temperature Reactors 2008, Washington. DC, 2008.

45. "Elevated Temperature Aging and Environmental Effects – Results of a US/France INERI Study", C. Cabet and R. N. Wright, Proceedings of the 2009 International Congress on Advances in Nuclear Power Plants (ICAPP '09), Shinjuku Tokyo, Japan, 2009.

PATENTS:

1. "Dissolution of Inert Gas in a Metal Alloy", J. E. Flinn, G. E. Korth, R. N. Wright, D. E. Clark and R. B. Loop, U.S. Patent No. 4,768,577.
2. "Fabrication of High Temperature Materials by Exothermic Synthesis and Subsequent Dynamic Consolidation", B. H. Rabin, G. E. Korth, R. N. Wright and R. L. Williamson, U.S. Patent No. 5,129,801.
3. "Process for Synthesizing Compounds from Elemental Powders and Product", B. H. Rabin and R. N. Wright, U.S. Patent No. 5,269,830.
4. "A Method of Coating and Joining Iron Aluminides by Reaction Synthesis", R. N. Wright, J. K. Wright and G. A. Moore, U.S. Patent No. 5,350,107.
5. "A Method for Control of Gas Bubbles and Voids in Materials", R. N. Wright and C. DeW. Van Siclen, U.S. Patent No. 5,490,187.
6. "A Method for Incorporating Neutron Poisons into Corrosion Resistant Coatings", R. N. Wright, R. A. Mizia and W. D. Swank, Patent No. 6,919,526 B2.
7. "Neutron Absorbing Coating for Nuclear Criticality Control", R. N. Wright, R. A. Mizia and W. D. Swank, Patent No. 7,286,626 B2.

INVITED PRESENTATIONS:

1. "Characterization and Consolidation of RSP Type 304 Stainless Steel Powders", Materials Science Department, University of Wisconsin-Madison, November, 1985.
2. "Modeling Hot Isostatic Pressing of Ni₃Al Powders", ASM International Conference on High Temperature Intermetallic Compounds, Los Angeles, CA, 1989.
3. "Consolidation of Fiber Reinforced Intermetallic Matrix Composites", NASA Lewis Research Center, Cleveland, OH, 1989.
4. "Dynamic Consolidation of Rapidly Solidified Alloy Powders", University of Utah, Department of Metallurgical Engineering, Salt Lake City, UT, 1989.
5. "Dynamic Consolidation of Powders", University of Wyoming Engineering Seminar Series, Larime, WY, 1989.
6. "Application of Hot Isostatic Pressing for Near Net Shape Fabrication of Aluminides", ASM International, Conference on Near Net Shape Manufacturing for Automotive Applications, Detroit, MI, 1990, with J. R. Knibloe and R. L. Williamson.
7. "Structure/Property Relationships in Iron Aluminides", International Conference on High Temperature Materials, CIM, Ottawa, Canada, 1991.
8. "Elemental Powder Processing of Iron Aluminides", APMI Annual Meeting, San Francisco, CA, 1992.
9. "Enhanced Inert Gas Bubble Migration in Al Containing a Liquid Metal Impurity", Argonne National Laboratory, Metals and Ceramics Division, Chicago, IL, 1992.
10. "Synthesis and Processing of Particulate Materials at the INEL", International Conference on Powder Metallurgy and Particulate Materials, Nashville, TN, 1993.
11. "Processing Aluminides by Combustion Synthesis", ASM Symposium on High Temperature Intermetallics, Pittsburgh, PA, 1993.
12. "Microstructure/Property Relationships in Intermetallics", Argonne National Laboratory, Advanced Technology Division, Chicago, IL 1996.
13. "Particulate Materials Processing at the INEEL", International Conference on Powder Metallurgy and Particulate Materials, New Orleans, LA, 2001.
14. "Control of Microstructure/Properties and Residual Stress in Thermal Spray Coatings", Tohoku

- University, Sendai, Japan, 2001.
- 15. "Toward a Scientific Understanding of Thermal Spray Processing", Lehigh University, Bethlehem, PA, 2002.
 - 16. "Materials Engineering Issues for the Next Generation Nuclear Plant", Massachusetts Institute of Technology, Cambridge, MA 2007.
 - 17. "Materials Engineering Issues for the Next Generation Nuclear Plant", Colorado School of Mines, Golden, CO. 2008.