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EDUCATION

Aristotle University of Thessaloniki, Greece

Diploma, 1982, Mechanical Engineering

Lehigh University,

Ph.D., 1986, Applied Mathematics

Cornell University and Max Planck Institute,

Postdoctoral Studies, 1986-88,

Applied Mathematics and Theoretical and Applied Physics/Mechanics

PROFESSIONAL EXPERIENCE

Texas A&M University, College Station TX 77843-3141

John and Bea Slattery Chair, September 2004 –

Director, Texas Institute for Intelligent Bio-Nano Materials and Structures for Aerospace Vehicles (TiIMS),
September 2002-present

Chair, Materials Science and Engineering, January 2001-August 2003

Associate Vice President for Research, May 2001-May 2004

Ford Professor of Aerospace Engineering, October 1999-August 2004

Director, TEES Center for Mechanics of Composites, September 1998-December 2001

Director, Active Materials and Intelligent Systems Laboratory, September 1997-present

Full Professor of Aerospace Engineering, September 1998 - present

Associate Professor of Aerospace Engineering, July 1992 – August 1998

NASA Langley Research Center, Hampton, VA

NASA Faculty Fellow, June 2004 – August 2004

ENSAM Metz, France

Visiting Professor, December 2000, May 2002

University of Texas at Austin, Austin, Texas

Visiting Scholar, Department of Aerospace and Engineering Mechanics, Fall 1998

University of Metz, Metz, France

Visiting Professor, CNRS Institute for Mechanics of Materials (LPMM), December 2003

Visiting Professor, CNRS Institute for Mechanics of Materials (LPMM), May-June, 1998

Rensselaer Polytechnic Institute, Troy NY 12180

Assistant Professor of Civil Engineering, September 1988 - June 1992

Adjunct Associate Professor of Civil and Environmental Engineering, July 1992-June 1993

Cornell University, Ithaca NY 14853

Postdoctoral Associate, Mathematical Sciences Institute, August 1986 - August 1988

Max-Planck Institute, Stuttgart, West Germany

Visiting Scientist, Max-Planck Institute for Metal Research and the Institute for Theoretical and Applied Physics of
the University of Stuttgart, September 1987 - November 1987

Lehigh University, Bethlehem PA 18015

Visiting Instructor, Department of Mechanical Engineering and Mechanics, Summer 1985

Teaching Assistant, Center for the Application of Mathematics, January 1983 - June 1986

Adra Sugar Factory, Damascus, Syria

Assistant Mechanical Engineer, Summer 1981

Langerer & Reich, Stuttgart, West Germany

Workstudent, Summer 1980

Aristotle University of Thessaloniki, Greece

Teaching Assistant in the Chair of Thermodynamics, September 1979 - June 1980

Bor Copper Mines, Bor, Yugoslavia

Assistant Mechanical Engineer, Summer 1979

HONORS AND AWARDS

1. Recipient of the ***Greek National Scholarship Foundation Award*** for outstanding performance in the entrance examinations (1977) and during the academic years 1977-80.
2. ***Graduate School Fellowship***, Lehigh University, academic year 1985-86.
3. ***Engineering Foundation Research Initiation Award***, 1990-91.
4. ***NSF Research Initiation Award***, 1991-93.
5. ***Lilly Teaching Fellowship***, 1991-92.
6. ***Who's Who in America***, 1995-
7. ***Who's Who in Science and Engineering***, 1996-
8. ***Adaptive Structures and Material Systems Best Paper Award***, presented by The American Society of Mechanical Engineers, 1995.
9. ***TEES Research Fellow***, 1995, 1996.
10. ***TEES Senior Research Fellow***, 1997.
11. ***Defense Science Study Group, Institute for Defense Analyses***, 1998-1999.
12. ***Neely '52 Dow Chemical Faculty Fellow Award***, 1998.
13. ***Lockheed Excellence in Engineering Teaching Award***, 1998.
14. ***Ford Professor of Aerospace Engineering, TAMU***, 1999-2004.
15. ***Associate Fellow, American Institute of Aeronautics and Astronautics***, 2000.
16. ***Fellow, American Society of Mechanical Engineers***, 2000.
17. ***Texas A&M University Faculty Fellow***, 2000-2005.
18. ***TEES Charles W. Crawford Service Award***, 2003.
19. ***NASA Faculty Fellowship***, NASA Langley, 2004
20. ***John and Bea Slattery Chair***, 2004
21. ***Adaptive Structures and Material Systems Best Paper Award***, presented by The American Society of Mechanical Engineers, 2005

I. TEACHING

I.1 Courses (Undergraduate (U); Graduate (G))

Lehigh University

Mechanics of Materials (U)

Rensselaer Polytechnic Institute

Mechanics I: Statics & Dynamics (U)

Mechanics II: Continuum Mechanics (U)

Introduction to Engineering Analysis (U)

Mechanics of Solids (G)

Advanced Mechanics of Materials (G)

Damage Mechanics (G)

Inelastic Behavior of Composites (G)

Micromechanics of Composite Materials (G)

Texas A&M University

Elements of Aerospace Structures (U)

Micromechanics (G)

Continuum Mechanics (G)

Conservation Principles and the Structure of Engineering (U)

Conservation Principles for Continuous Media (U)

Continuum Mechanics - Foundation Coalition (U)

Mechanics of Active Materials (G)

Theory of Elasticity (G)

II. RESEARCH

II.1 Refereed Journal Publications

1. LAGOUDAS, D.C., 1986, "Boundary Traction in the Gauge Theory of Dislocations and Disclinations," International Journal of Engineering Science 24, pp. 933-937.
2. EDELEN, D.G.B., and LAGOUDAS, D.C., 1986, "Null Lagrangians, Admissible Traction and Finite Element Methods," International Journal of Solids and Structures 22, pp. 659-672.
3. LAGOUDAS, D.C., 1986, "Toward a Self-Consistent Theory of Electromagnetic Boundary Value Problems," International Journal of Engineering Science 24, pp. 1629-1636.
4. LAGOUDAS, D.C., 1987, "Plane Harmonic Waves in the Linearized Gauge Theory of Dislocations," International Journal of Engineering Science 25, pp. 1323-1335.
5. EDELEN, D.G.B., and LAGOUDAS, D.C., 1988, "Dispersion Relations for the Linearized Field Equations of Dislocation Dynamics," International Journal of Engineering Science 26, pp. 837-846.
6. LAGOUDAS, D.C., 1989, "Gauge Theory of Defects in Media with Microstructure," International Journal of Engineering Science 27, pp. 237-249.
7. LAGOUDAS, D.C., and EDELEN, D.G.B., 1989, "Material and Spatial Gauge Theories of Solids - I: Gauge Constructs, Geometry and Kinematics," International Journal of Engineering Science 27, pp. 411-431.
8. LAGOUDAS, D.C., 1989, "On Equivalence Between the Classical Theory of Dislocations and the Gauge Theory of Defects," Letters in Applied and Engineering Sciences 27, pp. 737-738.
9. LAGOUDAS, D.C., HUI, C.-Y., and PHOENIX, S.L., 1989, "Time Evolution of Overstress Profiles Near Broken Fibers in a Composite with Viscoelastic Matrix," International Journal of Solids and Structures 25, pp. 45-66.
10. HUI, C.-Y., and LAGOUDAS, D.C., 1990, "Stress Fields of Interface Dislocations," ASME Journal of Applied Mechanics 57 No. 1, pp. 247-248 (Brief Note).
11. GAVAZZI, A.C., and LAGOUDAS, D.C., 1990, "On the Numerical Evaluation of Eshelby's Tensor and its Application to Elastoplastic Fibrous Composites," Computational Mechanics 7 No. 1, pp. 13-19.
12. AKSEL, B., LAGOUDAS, D.C., and HUI, C.-Y., 1991, "Effects of a Frictional Interface on the Load Diffusion from a Broken Filament Embedded in an Elastic Medium," International Journal of Solids and Structures 27 No. 7, pp. 833-847.
13. WANG, Y.C, HUI, C.-Y., LAGOUDAS, D.C., and PAPADOPOULOS, J., 1991, "Small-Scale Crack Blunting at a Bimaterial Interface with Coulomb Friction," International Journal of Fracture, pp. 293-306.
14. LAGOUDAS, D.C., GAVAZZI, A.C., and NIGAM, H., 1991, "Elastoplastic Behavior of Metal Matrix Composites Based on Incremental Plasticity and the Mori-Tanaka Averaging Scheme," Computational Mechanics 8 No. 3, pp. 193-204.
15. LAGOUDAS, D.C., TADJBAKHSI, I., and FARES, N., 1991, "A New Approach to Microbuckling of Fibrous Composites," ASME Journal of Applied Mechanics 58 No. 2, pp. 473-479.
16. LAGOUDAS, D.C., 1991, "A Gauge Theory of Damage," International Journal of Engineering Science 29 No. 5, pp. 597-606.

17. AHMAD, H., and LAGOUDAS, D.C., 1991, "Effective Elastic Properties of Fiber-Reinforced Concrete with Random Fibers," Journal of Engineering Mechanics 117, pp. 2931-2938.
18. KRÖNER, E., and LAGOUDAS, D.C., 1992, "Gauge Theory with Disclinations," International Journal of Engineering Science 30 No. 1, pp. 47-53.
19. LAGOUDAS, D.C., and TADJBAKHS, J.G., 1992, "Active Flexible Rods with Embedded SMA Fibers," Smart Materials and Structures 1, pp. 162-167.
20. LAGOUDAS, D.C., and SALEH, A.M., 1993, "Compressive Failure due to Kinking of Fibrous Composites," Journal of Composite Materials 27 No. 1, pp. 83-106.
21. LAGOUDAS, D.C., and SALEH, A.M., 1993, "Geometry and Loading Effects on the Compressive Strength of Fibrous Composites," Journal of Reinforced Plastics and Composites 12 No. 9, pp. 1016-1023.
22. LAGOUDAS, D.C., and TADJBAKHS, I.G., 1993, "Deformations of Active Flexible Rods with Embedded Line Actuators," Journal of Smart Materials and Structures 2, pp. 71-81.
23. TADJBAKHS, I.G., and LAGOUDAS, D.C., 1994, "Variational Theory of Motion of Curved, Twisted and Extensible Elastic Rods," International Journal of Engineering Science 32 No. 4, pp. 569-577.
24. BOYD, J.G., and LAGOUDAS, D.C., 1994, "Thermomechanical Response of Shape Memory Composites," Journal of Intelligent Material Systems and Structures 5, pp. 333-345.
25. LAGOUDAS, D.C., BOYD, J.G., and BO, Z., 1994, "Micromechanics of Active Composites with SMA Fibers," ASME Journal of Engineering Mechanics and Technology 116, pp. 337-347.
26. JEONG, G.S., ALLEN, D.H., and LAGOUDAS, D.C., 1994, "Residual Stress Evolution due to Cool-Down in Viscoplastic Metal Matrix Composites," International Journal of Solids and Structures 31 No. 19, pp. 2653-2677.
27. LAGOUDAS, D.C., and BO, Z., 1994, "The Cylindrical Bending of Composite Plates with Piezoelectric and SMA Layers," Journal of Smart Materials and Structures 3, pp. 309-317.
28. LAGOUDAS, D.C., and HUANG, C.-M., 1994, "Finite Element Implementation of the Gauge Theory of Damage," International Journal of Engineering Science 32, pp. 1877-1888.
29. DVORAK, G.J., LAGOUDAS, D.C., and HUANG, C.-M., 1994, "Fatigue Damage and Shakedown in Metal Matrix Composite Laminates," Mechanics of Composite Materials and Structures 1, pp. 171-202.
30. LAGOUDAS, D.C., and DING, Z., 1995, "Modeling of Thermoelectric Heat Transfer in Shape Memory Alloy Actuators: Transient and Multiple Cycle Solutions," International Journal of Engineering Science 33, pp. 2345-2364.
31. LAGOUDAS, D.C., MA, X., MILLER, D.A., and ALLEN, D.H., 1995, "Modeling of Oxidation in Metal Matrix Composites," International Journal of Engineering Science 33, pp. 2327-2343.
32. BHATTACHARYYA, A., LAGOUDAS, D.C., WANG, Y.C., and KINRA, V.K., 1995, "On the Role of Thermoelectric Heat Transfer in the Design of SMA Actuators: Theoretical Modeling and Experiment," Journal of Smart Materials and Structures 4, pp. 252-263.
33. BOYD, J.G., and LAGOUDAS, D.C., 1996, "A Thermodynamical Constitutive Model for Shape Memory Materials. Part I. The Monolithic Shape Memory Alloy," International Journal of Plasticity 12, No. 6, pp. 805-842.
34. BOYD, J.G., and LAGOUDAS, D.C., 1996, "A Thermodynamical Constitutive Model for Shape Memory Materials. Part II. The SMA Composite Material," International Journal of Plasticity 12, No. 6, 843-873.

35. LAGOUDAS, D.C., BO, Z., and QIDWAI, M.A., 1996, "A Unified Thermodynamic Constitutive Model for SMA and Finite Element Analysis of Active Metal Matrix Composites," Mechanics of Composite Materials and Structures 4, pp. 153-179.
36. ENTCHEV, P.B., ILIEV, O.P., and LAGOUDAS, D.C., 1996, "Numerical Simulation of a 2-D Oxide Layer Growth in an Anisotropic Medium," Journal of Mechanical Behaviour 17, No. 1, pp. 67-84.
37. DING, Z., and LAGOUDAS, D.C., 1997, "Solution Behavior of the Transient Heat Transfer Problem in Thermoelectric Shape Memory Alloy Actuators," The SIAM Journal of Applied Mathematics 57, No. 1, pp. 34-52.
38. BHATTACHARYYA, A., and LAGOUDAS, D.C., 1997, "A Stochastic Thermodynamic Model for the Gradual Thermal Transformation of SMA Polycrystals," Journal of Smart Materials and Structures 6, No.3., pp. 235-250.
39. XU, G.-M., LAGOUDAS, D.C., HUGHES, D., and WEN, J.T., 1997, "Modeling of a Flexible Beam Actuated by Shape Memory Alloys Wires," Journal of Smart Materials and Structures 6, No.3., pp. 265-277.
40. LAGOUDAS, D.C., MOORTHY, D., QIDWAI, M.A., and REDDY, J.N., 1997, "Modeling of the Thermomechanical Response of Active Composite Laminates with SMA Layers," Journal of Intelligent Material Systems and Structures 8, pp. 476-488.
41. LAGOUDAS, D.C., and BHATTACHARYYA, A., 1997, "On the Correspondence Between Micromechanical Models for Shape Memory Alloys and the Preisach Model for Hysteresis," Mathematics and Mechanics of Solids Vol. 2, pp. 405-440.
42. BHATTACHARYYA, A., and LAGOUDAS, D.C., 1997, "Thermoelectric Shape Memory Alloy Actuators and the Issue of Thermomechanical Coupling," Journal of Physics IV France 7, C5, pp. 673-678.
43. DING, Z., and LAGOUDAS, D.C., 1998, "A Domain Transformation Technique in Oxygen Diffusion Problems with Moving Oxidation Fronts on Unbounded Domains," International Journal for Numerical Methods in Engineering, Vol. 42, pp. 361-384.
44. BHATTACHARYYA, A., and LAGOUDAS, D.C., 1998, "Modeling of Thin Layer Extensional Thermomechanical SMA Actuators," International Journal of Solids and Structures, Vol. 35, Nos. 3-4, pp. 331-362 .
45. LAGOUDAS, D.C. and DING, Z., 1998, "Numerical Computation of Metal Oxidation Problems on Bounded Domains," International Journal of Engineering Science, Vol. 36, pp. 367-381.
46. De BLONK, B.J. and LAGOUDAS, D.C., 1998, "Actuation of Elastomeric Rods with Embedded Two-Way Shape Memory Alloy Actuators," Journal of Smart Materials and Structures, Vol. 7, No. 6, pp. 771-783.
47. LAGOUDAS, D.C., MA, X., and XU, S., 1998, "Surface Damage Modeling of Metal Matrix Composite Laminates Under Transverse Tension," International Journal of Damage Mechanics, Vol. 7, No. 3, pp. 209-237.
48. JONNALAGADA, K.D., SOTTOS, N.R., QIDWAI, M.A., and LAGOUDAS, D.C., 1998, "Transformation of Embedded Shape Memory Alloy Ribbons," Journal of Intelligent Materials Systems and Structures, Vol. 9, No. 5, pp. 321-400.
49. WEBB, G.V., LAGOUDAS, D.C., and KURDILA, A.J., 1998, "Hysteresis Modeling of SMA Actuators for Control Applications," Journal of Intelligent Materials Systems and Structures, Vol. 9, No. 6, pp. 432-448.
50. BO, Z., LAGOUDAS, D.C., MILLER, D.A., 1999, "Material Characterization of SMA Actuators Under Non-Proportional Thermomechanical Loading," Journal of Engineering Materials and Technology, Vol.121, No. 1, pp. 75-85.

51. EDELEN, D.G.B and LAGOUDAS, D.C., 1999, "Matching the Inner and Outer Solutions in the Continuum Theory of Dislocations," International Journal of Engineering Science, Vol. 37, pp. 59-73.
52. DING, Z. and LAGOUDAS, D.C., 1999, "Transient Heat Transfer Behavior of One-Dimensional Symmetric Thermoelectric SMA Actuators," Journal of Mathematical and Computer Modeling, Vol. 29, pp. 33-55.
53. LAGOUDAS, D.C. and SHU, S.G., 1999, "Residual Deformation of Active Structures with Shape Memory Alloy Actuators," International Journal of Mechanical Sciences, Vol. 41, pp. 595-619.
54. LAGOUDAS, D.C., L.J. GARNER, REDINIOTIS, O.K., and WILSON, N., 1999, "Modeling and Experiments of the Hysteretic Response of an Active Hydrofoil Actuated by SMA Line Actuators," Smart Structures, 1999 Kluwer Academic Publishers, pp. 153-162.
55. BO, Z. and LAGOUDAS, D.C., 1999, "Thermomechanical Modeling of Polycrystalline SMAs Under Cyclic Loading, Part I: Theoretical Derivations," International Journal of Engineering Science, Vol. 37, pp. 1089-1140.
56. LAGOUDAS, D.C. and BO, Z., 1999, "Thermomechanical Modeling of Polycrystalline SMAs Under Cyclic Loading, Part II: Material Characterization and Experimental Results for a Specific Transformation Cycle," International Journal of Engineering Science, Vol. 37, pp. 1141-1173.
57. BO, Z. and LAGOUDAS, D.C., 1999, "Thermomechanical Modeling of Polycrystalline SMAs under Cyclic Loading, Part III: Evolution of Plastic Strains and Two-Way Shape Memory Effect," International Journal of Engineering Science, Vol. 37, pp. 1175-1203.
58. BO, Z. and LAGOUDAS, D.C., 1999, "Thermomechanical Modeling of Polycrystalline SMAs under Cyclic Loading, Part IV: Modeling of Minor Hysteresis Loops," International Journal of Engineering Science, Vol. 37, pp. 1205-1249.
59. MILLER, D.A. and LAGOUDAS, D.C., 2000, "Influence of Heat Treatment on the Mechanical Properties and Damage Development in a SiC/Ti-15-3 MMC," ASME Journal of Engineering Mechanics and Technology, Vol. 122, pp. 74-79.
60. LAGOUDAS, D.C., WHITCOMB, J.D., MILLER, D.A., LAGOUDAS, M.Z., SHRYOCK, K.J., 2000, "Continuum Mechanics in a Restructured Engineering Curriculum," International Journal of Engineering Education, Vol. 16, No 4, pp. 301-314.
61. QIDWAI, M.A., and LAGOUDAS, D.C., 2000, "Numerical Implementation of a Shape Memory Alloy Thermomechanical Constitutive Model Using Return Mapping Algorithms," International Journal for Numerical Methods in Engineering, Vol. 47, pp. 1123-1168.
62. LAGOUDAS, D.C., ENTCHEV, P., and TRIHARJANTO, R., 2000, "Modeling of Oxidation and its Effect on Crack Growth in Titanium Alloys," Journal of Computer Methods in Applied Mechanics and Engineering, Vol. 183, pp. 35-50.
63. CHEN, YI-CHAO, and LAGOUDAS, D.C., 2000, "Impact Induced Phase Transformation in Shape Memory Alloys," Journal of the Mechanics and Physics of Solids, Vol. 48, pp. 275-300.
64. McNEESE, M.D., LAGOUDAS, D.C., POLLOCK, T.C., 2000, "Processing of NiTi from Elemental Powders by Hot Isostatic Pressing," Materials Science and Engineering A, Vol. 280, pp. 334-348.
65. WEBB, G., KURDILA, A., and LAGOUDAS, D.C., 2000, "Adaptive Hysteresis Model for Model Reference Control with Actuator Hysteresis," AIAA Journal of Guidance, Control, and Dynamics, Vol. 23, No. 3, pp. 459-465.
66. WEBB, G., WILSON, L., LAGOUDAS, D., REDINIOTIS, O., 2000, "Adaptive Control of Shape Memory Alloy Actuators for Underwater Biomimetic Applications," AIAA Journal, Vol. 38, No. 2, pp. 325-334.

67. QIDWAI, M.A., and LAGOUDAS, D.C., 2000, "On Thermomechanics and Transformation Surfaces of Polycrystalline Shape Memory Alloy Materials," International Journal of Plasticity, Vol. 16, pp. 1309–1343.
68. MILLER, D.A., and LAGOUDAS, D.C., 2000, "Thermo-Mechanical Characterization of NiTiCu and NiTi SMA Actuators: Influence of Plastic Strains," Journal of Smart Materials and Structures, Vol. 9, No. 5, pp. 640-652.
69. GARNER, L.J., WILSON, L.N., LAGOUDAS, D.C., and REDINIOTIS, O.K., 2000, "Development of a Shape Memory Alloy Actuated Biomimetic Vehicle," Journal Smart Materials and Structures , Vol. 9, No. 5, pp. 673-683.
70. JONNALAGADDA, K.D., SOTTOS, N.R., QIDWAI, M.A., and LAGOUDAS, D.C., 2000, "Insitu-Displacement Measurements and Theoretical Prediction of Embedded SMA Actuation" Journal of Smart Materials and Structures, Vol. 9, No. 5, pp. 701-710.
71. WEBB, G., LAGOUDAS, D.C., and KURDILA, A., 2000, "Adaptive Hysteresis Compensation for SMA Actuators with Stress-Induced Variations in Hysteresis," Journal of Intelligent Materials Systems and Structures, Vol. 10, No. 11, pp. 845-854.
72. ENTCHEV, P.B, LAGOUDAS, D.C., and ILIEV, O.P., 2000, "Domain Transformation Problems in 2-D Oxidation," Journal of the Mechanical Behavior of Materials, Vol. 11, No. 4, pp. 275-293.
73. BHATTACHARYYA, A. and LAGOUDAS, D.C., 2000 "Effective Elastic Moduli of Two-Phase Transversely Isotropic Composites with Aligned Clustered Fibers," Acta Mechanica, Vol. 145, pp. 65-93.
74. ENTCHEV, P.B., LAGOUDAS, D.C., and SLATTERY, J.C., 2001, "Effects of Non-Planar Geometries and Volumetric Expansion in the Modeling of Oxidation in Titanium," International Journal of Engineering Science, Vol. 39, pp. 695-714.
75. MILLER, D.A. and LAGOUDAS, D.C., 2001, "Influence of Cold Work and Heat Treatment on the Shape Memory Effect and Plastic Strain Development of NiTi," Materials Science and Engineering A 308, pp. 161-175.
76. IMBRIE, P.K., and LAGOUDAS, D.C., 2001, "Morphological Evolution of TiO₂ Scale Formed on Various 1-D and 2-D Geometries of Titanium," Oxidation of Metals, Vol. 55, Nos.3/4, pp. 361-401.
77. QIDWAI, M. A., ENTCHEV, P. B., LAGOUDAS, D. C., and DeGIORGI, V. G., 2001, "Modeling of the Thermomechanical Behavior of Porous Shape Memory Alloys," International Journal of Solids and Structures, Vol. 38, pp. 8653-8671.
78. REDINIOTIS, O.K., and LAGOUDAS, D.C., 2002, "Shape Memory Alloy Actuators as Locomotor Muscles," Progress in Astronautics and Aeronautics, Vol. 195, pp. 483-500.
79. REDINIOTIS, O.K., WILSON, L.N., LAGOUDAS, D.C., and KHAN, M.M., January 2002, "Development of a Shape Memory Alloy Actuated Biomimetic Hydrofoil," Journal of Intelligent Material Systems and Structures, Vol. 13, pp. 35-49.
80. ENTCHEV, P. B., and LAGOUDAS, D. C., 2002, "Modeling Porous Shape Memory Alloys using Micromechanical Averaging Techniques," Mechanics of Materials, Vol. 34, pp. 1-24.
81. BEKKER, A., LAGOUDAS, D.C., and JIMENEZ-VICTORY, J.C., 2002, "Impact Induced Propagation of Phase Transformation in a Shape Memory Alloy Rod," International Journal of Plasticity, Vol. 18, pg. 1447-1479
82. LAGOUDAS, D.C., RAVI-CHANDRA, K., SARH, K., and POPOV, P., 2003, "Dynamic Loading of Polycrystalline Shape Memory Alloy Rods," Mechanics of Materials, Vol. 35, pp. 689-716.
83. LAGOUDAS, D.C., VANDYGRIFF, E.L., 2003, "Processing & Characterization of NiTi Porous SMA by Elevated Pressure Sintering," Special Issue, Journal of Intelligent Material Systems and Structures, Vol. 13, No. 12, pp. 837-850.

84. STRELEC, J.K., LAGOUDAS, D.C., KHAN, M.A., and YEN, J., 2003, "Design and Implementation of a Shape Memory Alloy Actuated Reconfigurable Wing," Special Issue, Journal of Intelligent Material Systems and Structures, Vol. 14, pp. 257-273.
85. KARACA, H.E., KARAMAN, I., LAGOUDAS, D.C., MAIER, H.J. and CHUMLYAKOV, Y.I., 2003, "Recoverable stress-induced martensitic transformation in a ferromagnetic CoNiAl alloy," Scripta Materialia, Vol. 49, pp 831-836.
86. LAGOUDAS, D.C. and ENTCHEV, P., 2004, "Modeling of Transformation-induced Plasticity and its Effect on the Behavior of Porous Shape Memory Alloys. Part I: Constitutive Model for Fully Dense SMAs," Mechanics of Materials, Vol. 36, pp. 865-892.
87. ENTCHEV, P. and LAGOUDAS, D.C., 2004, "Modeling of Transformation-induced Plasticity and its Effect on the Behavior of Porous Shape Memory Alloys. Part II: Porous SMA Response," Mechanics of Materials, Vol. 36, pp. 893-913.
88. KHAN, M. M., LAGOUDAS, D.C., MAYES, J.J., HENDERSON, B.K., 2004, "Pseudoelastic SMA Spring Elements for Passive Vibration Isolation, Part I: Modeling," Journal of Intelligent Material Systems and Structures, Vol. 15, No. 6, pp. 415-441.
89. LAGOUDAS, D.C., KHAN, M.M., MAYES, J.J., HENDERSON, B.K., 2004, "Pseudoelastic SMA Spring Elements for Passive Vibration Isolation, Part II: Simulations and Experimental Correlations," Journal of Intelligent Material Systems and Structures, Vol. 15, No. 6, pp. 443-470.
90. KARACA, H.E., KARAMAN, I., CHUMLYAKOV, Y.I., LAGOUDAS, D.C., and ZHANG, X.Y., 2004 "Compressive Response of a Single Crystalline CoNiAl Shape Memory Alloy," Scripta Materialia, Vol. 51, pp. 261-266.
91. SLATTERY, J.C., LAGOUDAS, D.C., 2004, "Thermodynamics of Multicomponent, Elastic, Crystalline Solids," Mechanics of Material, Vol. 37, 121-141.
92. NEWMAN, M., SAFJAN, A., POPOV, P. and LAGOUDAS, D.C., 2004, "A Non-reflecting Layer Method for Nonlinear Wave-Type Equations on Unbounded Domains with Applications to Shape Memory Alloy Rods," International Journal for Numerical Methods in Engineering, Vol. 62, No. 15, pp. 2053-2085.

Accepted Journal Publications

93. PATOOR, E., LAGOUDAS, D.C., ENTCHEV, P.B. and BRINSON, L.C. 2004, "Shape Memory Alloys – Part I: General Properties and Modeling of Single Crystals," Mechanics of Materials
94. LAGOUDAS, D.C., ENTCHEV, P.B., POPOV, P. PATOOR, E., BRINSON, L.C. and GAO, X. 2004, "Shape Memory Alloys – Part II: Modeling of Polycrystals," Mechanics of Materials
95. LEE, J.S., BOYD, J.G., and LAGOUDAS, D.C., 2004, "Effective Properties of Three-Phase Electro-Magneto-Elastic Composites," International Journal of Engineering Science
96. OH, E.-S., WALTON, J.R., LAGOUDAS, D.C., SLATTERY, J.C., 2004 "Evolution of Stresses in a Simple class of Oxidation Problems," Acta-Mechanical
97. HADJIEV, V.G., LAGOUDAS, D.C., OH, E.-S., THAKRE, P., DAVIS, D., FILES, B.S., YOWELL, L., AREPALLI, S., BAHR, J.L. and TOUR, J.M., 2004, "Buckling Instabilities of Octadecylamine Functionalized Carbon Nanotubes Embedded in Epoxy," Advanced Functional Materials
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131. LAGOUDAS, D., KARAMAN, I. and KIEFER, B., "Investigation of the Influence of the Magnetic Microstructure on the Martensitic Variant Reorientation Process in Magnetic Shape Memory Alloys," SES Conference, Lincoln, NE, Oct. 10-12, 2004
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133. LAGOUDAS, D. and MACHADO, L., "Dynamical Response of SMA Actuators," ASME Conference, Anaheim, CA, Nov. 15-19, 2004
134. LAGOUDAS, D. and KIEFER, B., "Constitutive modeling of the ferromagnetic shape memory effect under special consideration of the evolution of magnetic domains," ASME Conference, Anaheim, CA, Nov. 15-19, 2004
135. HADJIEV, V., D. LAGOUDAS, D. DAVIS, "A study of Interfaces/Interphases in Functionalized Carbon Nanotube Composites through Strain Transfer Measurements, ASME Winter Conference, Anaheim, CA, Nov. 13-19, 2004
136. LAGOUDAS, D., P. POPOV, "Recent Advances on the Thermomechanical Modeling of Shape Memory Alloys, SPIE Conference, San Diego, CA, March 6-10, 2005
137. KIEFER, B., D. LAGOUDAS, "Modeling of the magnetic field-induced Martensitic variant reorientation in and the associated magnetic shape-memory effect in MSMAs," SPIE Conference, San Diego, CA, March 6-10, 2005
138. PEDDIRAJU, P., GRENOBLE, R., FRIED, K. GATES, T. and LAGOUDAS, D., "Analytical Predictions and Experimental Measurements of Hydrogen Permeability in a Microcrack Damaged Composite," AIAA Structures, Structural Dynamics and Materials Conference, Austin, TX, April 18-22, 2005
139. LAGOUDAS, D., MACHADO, L., and LAGOUDAS, M., "Nonlinear Vibration of a One-Degree of Freedom Shape Memory Alloy Oscillator: A numerical-experimental investigation," AIAA Structures, Structural Dynamics and Materials Conference, Austin, TX, April 18-22, 2005

III. SERVICE

III.1 Professional Service

III.1.1 Membership in Professional Societies

American Academy of Mechanics (AAM) (1988)
 American Institute of Aeronautics and Astronautics, Senior Member (AIAA) (1992)
 American Society for Composites (ASC) (1991)
 American Society for Engineering Education (ASEE) (1993)
 American Society of Civil Engineers (ASCE) (1988)
 American Society of Mechanical Engineers (ASME) (1986)
 International Society for the Interaction of Mechanics and Mathematics (ISIMM) (1987)
 Materials Research Society (MRS) (1989)
 Society of Engineering Science (SES) (1986)
 SPIE — The International Society for Optical Engineers (1993)

III.1.2 Professional Offices

Member of ASME Applied Mechanics Division, Committee on Composite Materials
 Vice-Chair of ASME Applied Mechanics Division, Elasticity Committee, 1993-1997, Member; 1998-present,
 Chair, ASME Applied Mechanics Division Elasticity Committee, 2000-2003

Member of ASME Joint Applied Mechanics and Materials Divisions, Committee on Constitutive Equations, 1990-present

Member of ASME Materials Division, Composite Materials Committee, 1992-present

Member of Aerospace Division ASME/AIAA/SPIE, Adaptive Structures and Material Systems Committee

Member, ASME Applied Mechanics Division, Mechanics Education Technical Committee

Member, ASME Applied Mechanics, Microelectromechanical Systems (MEMS) Subcommittee

Member of SPIE International Working Group on Smart Structures and Materials

Member of the SES Board of Directors

Treasurer, Society of Engineering Science, 1997-

Conference Co-Chair, SPIE Conference on Mathematics and Control of Smart Structures, 1999

Member, Smart Structures and Materials Executive Committee, 2001-