



CFCC

CONTINUOUS FIBER CERAMIC COMPOSITE PROGRAM

Bibliography of Publications from the CFCC Program

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CONTINUOUS FIBER CERAMIC COMPOSITE PROGRAM

**Bibliography of Publications
from the
CFCC Program**

compiled by

**Gloria M. Caton
Dorla G. Arnwine
Roswitha T. Haas
Judy O. Mynatt**

Oak Ridge National Laboratory

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**INDUSTRIAL ENERGY EFFICIENCY DIVISION
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DEPARTMENT OF ENERGY**

**OAK RIDGE NATIONAL LABORATORY
OAK RIDGE, TENNESSEE**

Contents

1.0	Open Literature Publications	1
2.0	Internal Program Publications	29
3.0	Presentations	35
4.0	Organization Index	49
5.0	Author Index	55

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Internal Program Publications

<176>

CFCC Working Group Meeting Held at Rosemont, Illinois, 18-19 November, 1992
U.S. DOE, Office of Industrial Technologies, November 1992.

<177>

CFCC Working Group Meeting Held at Knoxville, TN., September 1-29, 1992
U.S. DOE, Office of Industrial Technologies, September 1993.

<178>

CFCC Working Group Meeting Held at Bozeman, Montana, October 17-19, 1994
U.S. DOE, Office of Industrial Technologies, October 1994.

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Caton, G. M.; Karnitz, M. A. [Oak Ridge National Laboratory]
Continuous Fiber Ceramic Composite Program; Contacts Listing: Individuals and Organizations
U.S. DOE, Industrial Energy Efficiency Div., Office of Industrial Technologies,
September 1997.

<180>

Ellingson, W. A.; Thiemann, N.; Durkin, K. [Argonne National Laboratory]
Suitable, Industry-required, Nondestructive Characterization Methodologies for CFCCs
Technical Highlight from CFCC Supporting Technology Task, 10/05/93.

<181>

Ferber, M. K.; Wereszczak, A. A.; Lowden, R. A.; Hsueh, C. H. [Oak Ridge National Laboratory]
Development of an Interfacial Test System
Technical Highlight from CFCC Supporting Technology Task, 8/27/93.

<182>

Hahn, H. T. [University of California-Los Angeles]: Kim, H. G.; Pandey, R. [Michigan Technological University]: Temple, R. C.
Micromechanical Modeling for Continuous Fiber Ceramic Composites
Technical Highlight from CFCC Supporting Technology Task, 8/27/93.

<183>

Jenkins, M. G. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]
Suitable, Industry-Required, Thermomechanical Test Methodologies for CFCCs
Technical Highlight from CFCC Supporting Technology Task, 8/27/93.

<184>

Jenkins, Michael G. [University of Washington]

An overview of thermo-mechanical test methods for CFCC tubes

Technical Highlight from CFCC Supporting Technology Task, 12/22/93.

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RCG/Hagler, Bailly, Inc.

1991 Status of Foreign CFCC R&D Activities

RCG/HBI Ref. No. 91-5403, U.S. DOE, Office of Industrial Technologies, January 1992,
restricted circulation.

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RJ Lee Group

Sampling and Analysis Protocols for the Characterization of Debris from Continuous-Fiber Ceramic Composites

RJ Lee Group Project No. GMH011227, November 1991.

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Technology Management Associates

Potential CFCC Opportunities in Selected Applications: Auxiliary Components in the Metals Industries

U.S. DOE, Office of Industrial Technologies, May 1991.

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U.S. DOE, Industrial Energy Efficiency Div., Office of Industrial Technologies

Annual Operating Plan: Continuous Fiber Ceramic Composite Program; Task 2: Supporting Technologies FY 1993

U.S. DOE, Industrial Energy Efficiency Div., Office of Industrial Technologies, November 1992.

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Continuous Fiber Ceramic Composite Program Plan

U.S. DOE, Office of Industrial Technologies, July 1990.

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United States Advanced Ceramics Association

Anatomy of a Successful Initiative

United States Advanced Ceramics Association (USACA), Washington, DC.

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United States Advanced Ceramics Association

CFCC Commercialization: A Strategic Plan Developed by the USACA Ceramic Composites Working Group

United States Advanced Ceramics Association (USACA), March 1, 1993.

Presentations

<192>

Ailey, K. S. [North Carolina State University]: More, K. L.; Lowden, R. A. [Oak Ridge National Laboratory]

The Stability of BN Coatings in CFCC Systems During Oxidation

Presented at the 99th Annual Meeting of the American Ceramic Society, Cincinnati, OH, May 8, 1997.

<193>

Ailey, K. S. [North Carolina State University]: More, K. L.; Lowden, R. A. [Oak Ridge National Laboratory]

The Stability of BN Interfacial Coatings in CFCC Systems During Oxidation and Exposure to Moisture

Presented at Microscopy and Microanalysis, Cleveland, OH, August 10-14, 1997.

<194>

Arnold, C. L.; More, K. L.; Lara-Curzio, E. [Oak Ridge National Laboratory]

Characterization of Modified Ceramic Fiber Surfaces Using AFM

Presented at the 53rd Annual Meeting of the Microscopy Society of America, Kansas City, MO., August 14-17, 1995.

<195>

Arnold, C. L.; More, K. L.; Lara-Curzio, E. [Oak Ridge National Laboratory]

Characterization of Modified Ceramic Fiber Surfaces Using AFM and Push-Out Tests

Presented at the 29th Annual Conference of the Microbeam Analysis Society, Breckenridge, CO., August 7-10, 1995.

<195A>

Beecher, S. C.; Dinwiddie, R. B. [Oak Ridge National Laboratory]

The Effect of Oxidation on the Thermal Diffusivity of Continuous Fiber Reinforced Ceramic Matrix Composites

Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society, Boston, Massachusetts on November 28 - December 2, 1994.

<196>

Corman, G. S. [General Electric Corporation]: Heinen, J. T.; Goetze, R. H. [General Electric Power Generation]

Ceramic Composites for Industrial Gas Turbine Engine Applications: DOE CFCC Phase I Evaluations

Presented at the International Gas Turbine and Aeroengine Congress and Exposition, Houston, Texas, June 5-8, 1995.

<197>

Corman, G. S.; Brun, M. K.; Luthra, K. L.; Palko, J. [General Electric Corporation]

Toughened Silcomp Composites for Land Based Turbine Engine Applications

Presented at the Conference on Processing, Fabrication and Application of Advanced Composites, sponsored by ASM International and TMS, Long Beach, Calif., Aug. 9-11, 1993.

<198>

Corman, G. S.; Brun, M. K.; Meschter, P. J.; Luthra, K. L.; Eldrid, R. [General Electric Corporation]

Toughened Silcomp for Gas Turbine Engine Applications

Presented at the 39th International SAMPE Symposium and Exhibition, Anaheim, California, April 11-14, 1994.

<199>

Corman, G. S.; Luthra, K. L.; Brun, M. K. [GE Corporate R&D]

Toughened Silcomp (SiC-Si) Composites for Gas Turbine Engine Applications: CFCC Phase 2 Status

20th Annual Conference on Composites, Materials and Structures, Cocoa Beach, FL, January 23-25, 1996.

<200>

Corman, G. S.; Luthra, K. L.; Brun, M. K.; Meschter, P. J. [General Electric Corporation]

Development of Toughened Silcomp Ceramic Composites for Gas Turbine Engine Applications

Presented at the 97th Annual Meeting of the American Chemical Society, Cincinnati, Ohio, April 30-May 3, 1995.

<201>

Fehlmann, K. R. [Scaled Technology Works]; Jenkins, M. G. [University of Washington]

Effects of Material Removal Process on the High-Temperature Performance of an Oxide-Matrix CFCC

Presented by M.G. Jenkins at the 21st Annual Conference on Composites, Materials, and Structures, Cocoa Beach, Florida, January 12-16, 1997.

<202>

Ferber, M. K.; Lara-Curzio, E.; Russ, S. E. [Oak Ridge National Laboratory]; Chawla, K. K.

Single-fiber Push-in vs. Single-fiber Push-out: A Comparison Between Two Test Methods to Determine the Interfacial Properties of Brittle Matrix Composites

Presented at the Symposium on Ceramic Matrix Composites and Advanced Structural Materials, The Materials Research Society, Boston, Massachusetts, November 28-December 2, 1994.

<203>

Ferber, M. K.; Lara-Curzio, E.; Wereszczak, A. A.[Oak Ridge National Laboratory]
Time-Dependent Failure of Structural Ceramics and Ceramic Matrix Composites at Elevated Temperatures

Presented at the 99th Annual Meeting and Exposition of the American Ceramic Society,
Cincinnati, OH, May 4-7, 1997.

<204>

Hellmann, J. R.; Koss, D. A.; Rhyne, E. [Pennsylvania State University]: Kantos, P. [NASA Lewis Research Center]

Single Fiber Testing and Interfacial Failure in Composites with Large Residual Stresses

Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society, Boston, Massachusetts on November 28 - December 2, 1994.

<205>

Hsueh, C. H. [Oak Ridge National Laboratory]

Stress Transfer from Axially Loaded Fiber to Matrix in a Microcomposite

Presented at the Symposium of Ceramic Matrix Composites-Advanced High Temperature Structural Materials, 1994 MRS Fall Meeting, Boston, MA, Nov. 28-Dec. 2, 1994.

<206>

Hsueh, C. H. [Oak Ridge National Laboratory]

Matrix Cracking with Frictional Bridging Fibers in Unidirectional Fiber-Reinforced Ceramic Composites

Presented at the 97th Annual Meeting, The American Ceramic Society, Cincinnati, Ohio, Apr. 30-May 3, 1995.

<207>

Hsueh, C. H. [Oak Ridge National Laboratory]

Criteria for Progressive Interfacial Debonding with Friction in Fiber-Reinforced Ceramic Composites

MRS Fall Meeting, Boston, Massachusetts, November 27-December 1, 1995.

<208>

Hsueh, C. H. [Oak Ridge National Laboratory]

Analyses of Interfacial Properties of Fiber-Reinforced Ceramic Composites

Invited talk at Department of Mechanical and Aerospace Engineering and Engineering Science, The University of Tennessee, Knoxville, April 1, 1996.

<209>

Hsueh, C. H. [Oak Ridge National Laboratory]

Interfacial Debonding at the Embedded End during Fiber Pull-out/Push-out

Presented at the 98th Annual Meeting, The American Ceramic Society, Indianapolis, Indiana, April 14-17, 1996.

<210>

Hsueh, C. H. [Oak Ridge National Laboratory]

Stress Transfer Problems for a Fully Embedded Fiber with a Bonded Interface and Bonded Ends

Presented at 2nd PacRim Meeting, Cairns, Australia, July 15-17, 1996.

<211>

Hsueh, C. H. [Oak Ridge National Laboratory]

Analyses of Fiber Push-Out Tests and Related Problems

Invited talk at Department of Materials Science and Engineering and Department of Mechanical and Aerospace Engineering and Engineering Science, The University of Tennessee, Knoxville, Tennessee, September 10, 1996.

<212>

Jakus, K.; Widjaja, S.; Ritter, J. E. [University of Massachusetts]: Lara-Curzio, E.; Sun, E. Y.; Watkins, T. R. [Oak Ridge National Laboratory]: Brennan, J. J. [United Technologies Research Center]

High-Temperature Load Transfer in Nicalon(TM)/BMAS Glass-Ceramic Matrix Composites

Presented at the 99th Annual Meeting and Exposition of the American Ceramic Society, Cincinnati, OH, May 4-7, 1997.

<213>

Jenkins, M. G. [University of Washington]

Thermo-mechanical Test Method Development for Continuous Fibre Ceramic Composites (CFCCs) under US-DOE's CFCC Program

Presented at the 1993 SEM "50th Anniversary" Spring Conference on Experimental Mechanics, Dearborn, Michigan, June 8-11, 1993.

<214>

Jenkins, M. G. [University of Washington]

Standardized Thermomechanical Test Methods for Monolithic and Composite Advanced Ceramics

Paper B-8-94F, at Critical Testing Standards for Ceramic Manufacturing Session at the Ceramic Manufacturers and Suppliers Workshop and Exhibition, Louisville, Kentucky, September 25-28, 1994.

<215>

Jenkins, M. G. [University of Washington]

Standardized Thermomechanical Test Methods for Monolithic and Composite Advanced Ceramics

Presented at the 1995 DOD/DOE/NASA Workshops on the U.S. Advanced Composites Industrial Base, Cape Canaveral, Florida, January 5, 1995.

<216>

Jenkins, M. G. [University of Washington]: Piccola, J. P.; Lara-Curzio, E. [Oak Ridge National Laboratory]

Onset of Cumulative Damage (First Matrix Cracking) and the Effects of Test Parameters on the Tensile Behavior of a Continuous Fibre-Reinforced Ceramic Composite (CFCC)

Presented by A.S. Kobayashi at Fracture Mechanics of Ceramics, Karlsruhe, Germany, July 1995.

<217>

Jenkins, M. G. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]

The Relation of Proportional Limit Stress, Matrix Cracking Stress, and Acoustic Emission

Events During the Tensile Behavior of a CFCC

Presented by M.G. Jenkins at the 47th Pacific Coast Regional Meeting of the American Ceramic Society, Seattle, Washington, November 1-3, 1995.

<218>

Jenkins, M. G. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]

Standards for CFCCs: From Test Methods to Design Codes

Poster presented at CFCC Working Group Meeting, Lisle, Illinois, September 18-20, 1995.

<218A>

Jenkins, M. G. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]

Standards for CFCCs: National and International Efforts

Poster presented at CFCC Working Group Meeting, San Diego, California, October 15-18, 1996.

<219>

Jenkins, M. G. [University of Washington]: Quinn, G. D. [National Institute of Standards and Technology]

ASTM Standards for Monolithic and Composite Advanced Ceramics: Industrial, Governmental and Academic Cooperation

Paper 96-GT-270, American Society of Mechanical Engineers, New York (1996).

<220>

Jenkins, M. G. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]
Standards and Codes for CFCCs

Presented by M.G. Jenkins at the 21st Annual Conference on Composites, Materials, and Structures, Cocoa Beach, Florida, January 29, 1997.

<221>

Jenkins, M. G. [University of Washington]

Time-Dependent Thermal and Mechanical Degradation of Ceramic Matrix Composites

Presented by M.G. Jenkins at the 1997 SEM Spring Conference and Exhibit, Bellevue, Washington, June 2-4, 1997.

<222>

Jenkins, M. G. [University of Washington]

Cumulative Damage in Continuous Fibre Ceramic Composites

Presented by E. Lara-Curzio at ICEE 4, Hawaii, July 6-12, 1997.

<223>

Jenkins, M. G.; Piccola, J. P. [University of Washington]: Lara-Curzio, E. [Oak Ridge National Laboratory]

Influence of Bending, Test Mode, Test Rate, Specimen Geometry and Grip System on the Tensile Mechanical Behavior of CFCCs

Presented at the Symposium on Thermal and Mechanical Test Methods and Behavior of CFCCs, Cocoa Beach, FL, January 8, 1996.

<224>

Jenkins, M. G.; Ramulu, M. [University of Washington]: Fehlmann, K. R.[Scaled Technology Works]

Abrasive Waterjet Machining Effects on the High Temperature Degradation and Mechanical Properties of a Ceramic Matrix Composite

Presented by M. Ramulu at the 9th American Water Jet Conference, Dearborne, Michigan, August 23-26, 1997.

<225>

Kupp, E. R.; Lara-Curzio, E.; Stinton, D. P.; Besmann, T. M. [Oak Ridge National Laboratory]
Screening of Interface Coating Materials Using Minicomposites

Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials and Structures, Cocoa Beach, Florida, January 14, 1997.

<226>

Lara-Curzio, E. [Oak Ridge National Laboratory]

Development of Standard Test Methods for the Mechanical Evaluation of CFCC

Presented at the DOD-DOE-NASA joint meeting on CFCCs, Oak Ridge National Laboratory, TN, May 25, 1994.

<227>

Lara-Curzio, E. [Oak Ridge National Laboratory]

Methodology for the Interfacial Characterization of CFCCs

Presented at the First Workshop on Thermal and Mechanical Test Methods and Behavior of CFCCs, American Society for Testing of Materials, Montreal, Canada, June 22, 1994.

<228>

Lara-Curzio, E. [Oak Ridge National Laboratory]

Interfacial Characterization of CFCCs

Presented at the Workshop on Radiation Resistant Ceramic Matrix Composites, Rensselaer Polytechnic Institute, Troy, NY, July 12, 1994.

<229>

Lara-Curzio, E. [Oak Ridge National Laboratory]

A Model for the Stress-Rupture of Fiber-Reinforced Ceramic Composites at Intermediate Temperatures

Presented at the 4th International Conference on Composite Engineering ICCE/4, Kohala Coast, Hawaii, July 7-11, 1994.

<230>

Lara-Curzio, E. [Oak Ridge National Laboratory]

Review of Models of Progressive Fiber Debonding and Sliding

Presented at the First International Workshop on Modeling of Continuous Fiber Ceramic Composites, Petten, The Netherlands, September 16-18 (1996).

<231>

Lara-Curzio, E. [Oak Ridge National Laboratory]: Russ, C. M. [Washington University]

On the Matrix Cracking Stress and the Redistribution of Internal Stresses in Brittle Matrix Composites

Presented at First International Workshop on Modeling of Continuous Fiber Ceramic Composites, Petten, The Netherlands, September 16-18, 1996.

<232>

Lara-Curzio, E. [Oak Ridge National Laboratory]

Tensile Evaluation of Minicomposites

Presented at the 2nd Annual Meeting on Interfaces, Knoxville, TN, June 19-20 (1996).

<233>

Lara-Curzio, E. [Oak Ridge National Laboratory]: Raghuraman, S. [University of Illinois at Urbana-Champaign]: Keiser, J. [Oak Ridge National Laboratory]: Ferber, M. K. [Oak Ridge National Laboratory]: Neogi, J.; Harkins, B.; Simpson, J. [Solar]

Thermomechanical Characterization of CFCC Turbular Components

Presented at the Symposium on Thermal and Mechanical Test Methods and Behavior of CFCCs, Cocoa Beach, FL, January 8, 1996.

<234>

Lara-Curzio, E. [Oak Ridge National Laboratory]
Oxidation-Induced Stress-Rupture of Fiber Bundles

Presented at the ASME Turbo Expo '97. International Gas Turbine Institute Meeting,
Orlando, FL. June 2-5, 1997.

<235>

Lara-Curzio, E. [Oak Ridge National Laboratory]: Russ, C. M. [Washington University]
*Redistribution of Internal Stresses and Residual Stresses in Composites: An Approach for
Increasing the Matrix Cracking Stress*

Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials
and Structures, Cocoa Beach, Florida, January 14, 1997.

<236>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]
Some Considerations for Modeling the Creep Behavior of Composites

Presented at the 18th Annual Conference on Composites and Advanced Ceramic
Materials, at Cocoa Beach, Florida, January 11, 1994.

<237>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]: Jenkins, M. G. [University of
Washington]

*Methodologies for the Thermomechanical Characterization of Continuous Fiber-Reinforced
Ceramic Matrix Composites: A Review of Test Methods*

Presented at the 39th International SAMPE Symposium and Conference, Society for the
Advancement of Material Process and Engineering, Anaheim, CA, April 13, 1994.

<238>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]
*Evaluation of Interfacial Properties of CFCCs by Means of Single-Fiber Push-out and
Push-Back Tests*

Presented at the Symposium on Ceramic Matrix Composites and Advanced Structural
Materials, The Materials Research Society, Boston, Massachusetts, November
28-December 2, 1994.

<239>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]
Evolution of Internal Stresses in Composite Materials During Creep

Presented at the Symposium on Ceramic Matrix Composites and Advanced Structural
Materials, The Materials Research Society, Boston, Massachusetts, November
28-December 2, 1994.

<240>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]: Rebillat, F.; Lamon, J. [LCTS, Pessae, France]

Modification of Interfaces in SiC/SiC Composites

Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society, Boston, Massachusetts on November 28 - December 2, 1994.

<241>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]: Boisvert, R.; Szweda, A. [Dow Corning Corp.]

The High Temperature Tensile Fatigue Behavior of Polymer-derived Ceramic Composites

Presented at the 19th Annual Cocoa Beach Conference and Exposition, Cocoa Beach, Florida, January 8-12, 1995.

<242>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]

Evolution of Internal Stresses in Composites During Creep

Presented at the 19th Annual Cocoa Beach Conference and Exposition, Cocoa Beach, Florida, January 8-12, 1995.

<243>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]

Shear Strength of Continuous Fiber Reinforced Ceramic Composites

Presented at the Symposium on Thermal and Mechanical Test Methods and Behavior of CFCC's, Cocoa Beach, FL, January 8, 1996.

<244>

Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]

Stress-Rupture of CFCCs

Poster Presentation at CFCC Annual Program Review Meeting, San Diego, CA, September 1996.

<245>

Lara-Curzio, E.; Ferber, M. K.; Besmann, T. M. [Oak Ridge National Laboratory]: Rebillat, F.; Lamon, J. [University of Burdeaux, France]

Fiber-Matrix Bond Strength, Fiber Frictional Sliding and the Macroscopic Tensile Behavior of a 2D SiC/SiC Composite with Tailored Interfaces

Presented at the 19th Annual Cocoa Beach Conference and Exposition, Cocoa Beach, Florida, January 8-12, 1995.

<246>

Lara-Curzio, E.; Ferber, M. K.; Hsueh, C. H; Wereszczak, A. A.; Lowden, R. A. [Oak Ridge National Laboratory]

Application of an Interfacial Test System to the Measurement of Interfacial Properties in Fiber-Reinforced Ceramic Composites

Presented at the 39th International SAMPE Symposium and Conference, Society for the Advancement of Material Process and Engineering, Anaheim, CA, April 13, 1994.

<247>

Lara-Curzio, E.; Ferber, M. K.; Lowden, R. A. [Oak Ridge National Laboratory]

The Effect of Coating Thickness on the Fiber-Matrix Interfacial Properties of CFCCs

Presented at the 18th Annual Conference on Composites and Advanced Ceramic Materials, at Cocoa Beach, Florida, January 11, 1994.

<248>

Lara-Curzio, E.; Ferber, M. K.; Tortorelli, P. F. [Oak Ridge National Laboratory]

Interface Oxidation and Stress-rupture of Nicalon(TM)/SiC CFCCs at Intermediate Temperatures

Presented at CMMC 96, San Sebastian, Spain, September 11, 1996.

<249>

Lara-Curzio, E.; Ferber, M. K.; Wereszczak, A. A.; Riester, L.; Lowden, R. A. [Oak Ridge National Laboratory]

Evaluation and Modeling of the Interfacial Behavior of CFCCs

Presented at the International Symposium in Metal and Ceramic Composites, TMS, 123rd Annual Meeting and Exhibition, San Francisco, CA, February 27-March 3, 1994.

<250>

Lara-Curzio, E.; Ferber, M. K.; Wereszczak, A. A.; Lowden, R. A. [Oak Ridge National Laboratory]

Development and Application of an Interfacial Test System for the Measurement of Interfacial Properties in Fiber-Reinforced Ceramic Composites

Presented at the International Symposium in Metal and Ceramic Composites, TMS, 123rd Annual Meeting and Exhibition, San Francisco, CA, February 27-March 3, 1994.

<251>

Lara-Curzio, E.; Tortorelli, P. F.; More, K. L. [Oak Ridge National Laboratory]

More Mechanical Characterization of CFCCs

Presentation at CFCC Program Review Meeting, Washington, DC, December 17, 1996.

<252>

Lara-Curzio, E.; Tortorelli, P. F.; More, K. L. [Oak Ridge National Laboratory]

Stress-Rupture of Nicalon(TM)/SiC at Intermediate Temperatures

Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials and Structures, Cocoa Beach, Florida, January 15, 1997.

<253>

Lee, W. Y.; Cooley, K. M.; Lara-Curzio, E.; More, K. L. [Oak Ridge National Laboratory]

Preparation of silica and zirconia coatings by CVD for Nicalon(TM)/SiC Composites

Presented at the 99th Annual Meeting and Exposition of the American Ceramic Society,
Cincinnati, OH, May 4-7, 1997.

<254>

Lee, W.; Cooley, K. M.; Lara-Curzio, E. [Oak Ridge National Laboratory]: Watkins, T. R.;
Misture, S. T.; Kupp, E. R.; More, K. L. [Oak Ridge National Laboratory]

*Phase Transformation as a Means for Promoting Weak Interfacial Behavior in Ceramic Matrix
Composites*

Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials
and Structures, Cocoa Beach, Florida, January 14, 1997.

<255>

Lee, W.; Lara-Curzio, E.; More, K. L.; Bae, Y. W.; Stinton, D. P.; Kupp, L.; Besmann, T. M.
[Oak Ridge National Laboratory]

Processing and Characterization of CVD Oxide Interface Materials

Presented at the 20th Annual Conference on Composites and Advanced Ceramics, Cocoa
Beach, FL, January 10 (1996).

<256>

Lin, H. T.; Becher, P. F. [Oak Ridge National Laboratory]

Stress-Temperature-Lifetime Response of Nicalon Fiber-Reinforced SiC Composites in Air

Presented in the ASTM Symposium of Thermal and Mechanical Test Methods and
Behavior of Continuous-Fiber Ceramic Composites, Cocoa Beach, Florida, January 7-9,
1996.

<257>

Lin, H. T.; Becher, P. F. [Oak Ridge National Laboratory]

*Lifetime and Reliability of Nicalon Fiber-SiC Matrix Composites at Elevated Temperatures in
Air*

Presented at the International Conference on Composites Engineering, Big Island, HI,
July 6-11, 1997.

<258>

Lin, H. T.; Becher, P. F. [Oak Ridge National Laboratory]

Effect of Fiber Coating on Lifetime of Nicalon Fiber-Silicon Carbide Composites

Presented at the 99th Annual Meeting of the American Ceramic Society, Cincinnati, OH,
May 4-7, 1997.

<259>

Lin, H. T.; Becher, P. F.; Tortorelli, P. F. [Oak Ridge National Laboratory]

Elevated Temperature Static Fatigue of a Nicalon Fiber-Reinforced SiC Composite

Presented at the Symposium of Ceramic Matrix Composites-Advanced High Temperature Structural Materials, 1994 MRS Fall Meeting, Boston, MA, Nov. 28-Dec. 2, 1994.

<260>

Lowden, R. A. [Oak Ridge National Laboratory]

Modification and Control of the Fiber-Matrix Interface in Continuous Fiber Ceramic Composites

Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society Boston, Massachusetts on November 28 - December 2, 1994.

<261>

Lowden, R. A. [Oak Ridge National Laboratory]

Oxidation Resistant Fiber Coatings for Non-Oxide Ceramic Composites

Presented at Symposium, Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society Boston, Massachusetts on November 28 - December 2, 1994.

<262>

Mark, K. Y.; Jenkins, M. G. [University of Washington]

Numerical Modeling of the Mechanical Response of a Continuous Fibre Ceramic Composite in Flexure

Presented by M.G. Jenkins at the 47th Pacific Coast Regional Meeting of the American Ceramic Society, Seattle, Washington, November 1-3, 1995.

<263>

Mark, K. Y.; Jenkins, M. G. [University of Washington]

Numerical Modeling of the Mechanical Response of a Continuous Fibre Ceramic Composite in Flexure

Presented by M.G. Jenkins at the 21st Annual Conference on Composites, Materials, and Structures, Cocoa Beach, Florida, January 12-16, 1997.

<264>

More, K. L. [Oak Ridge National Laboratory]

Interactions Between Industry and Supporting Technologies

Presented at the 20th Annual Conference on Composites and Advanced Ceramics - Restricted Session, Cocoa Beach, FL, January 24, 1996.

<265>

More, K. L. [Oak Ridge National Laboratory]: Ailey, K. S. [North Carolina State University]: Lowden, R. A. [Oak Ridge National Laboratory]

The Stability of BN Interfacial Coatings in SiC/SiC Composites Exposed to Oxygen in the Temperature Range 425-950EC

Presented at the 4th International Conference on Composites, Kona, Hawaii, July 6-12, 1997.

<266>

More, K. L.; Lara-Curzio, E.; Lin, H. T.; Tortorelli, P. F. [Oak Ridge National Laboratory]: Shinavski, R.; Steffier, W. S. [Hyper-Therm, Incorporated]

Multilayered SiC Fiber Coatings in Nicalon(TM) Fiber-Reinforced Ceramic Matrix Composites

Poster presentation at the 20th Annual Conference on Composites and Advanced Ceramics, Cocoa Beach, FL, January 8 (1996). Won First Place in Poster Contest.

<267>

More, K. L.; Lara-Curzio, Edgar; Lowden, R. A. [Oak Ridge National Laboratory]

Characterization of the Surface Roughness of a variety of Ceramic Fibers Using High Resolution SEM and Atomic Force Microscopy

Presented at the 96th Annual Meeting of the American Ceramic Society, Indianapolis, IN, April 24-28, 1994.

<268>

More, K. L.; Lara-Curzio, Edgar; Lowden, R. A. [Oak Ridge National Laboratory]

The Effect of Fiber Surface Roughness on the Interfacial Properties of SiC Matrix Composites

Presented at the 18th Annual Conference on Composites and Advanced Ceramic Materials, at Cocoa Beach, Florida, January 9-14, 1994.

<269>

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Presented at the 52nd Annual Meeting of the Microscopy Society of America, New Orleans, LA, July 31-Aug. 5, 1994.

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Microstructural Characterization of Interfaces in Fiber-Reinforced Ceramic Matrix Composites

Presented at the Frontiers of Electron Microscopy in Materials Science Meeting, Oakland, California, June 21-24, 1995.

<271>

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Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, Materials Research Society Boston, Massachusetts on November 28 - December 2, 1994.

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Presented at the American Ceramic Society Composites Meeting, Cocoa Beach, Florida, January 8-12, 1995.

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Presented at the 17th Annual Conference on Composites and Advanced Ceramic Materials, at Cocoa Beach, Florida, January 1993.

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Clark, A. [Tennessee Tech.]: Lowden, R. A. [Oak Ridge National Laboratory]

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Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials and Structures, Cocoa Beach, Florida, January 15, 1997.

<275>

More, K. L.; Tortorelli, P. F.; Lowden, R. A. [Oak Ridge National Laboratory]

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Presented at Microscopy of Oxidation '96, September, 1996, Cambridge, England. To be published in Conference Proceedings.

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Munson, K. L.; Jenkins, M. G. [University of Washington]

Retained Tensile Strengths of Oxide/Oxide and SiC/SiC CFCCs after High Temperature Exposure in Ambient Air

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<277>

Piccola, J. P.[Oak Ridge National Laboratory]: Jenkins, M. G. [University of Washington]
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Presented by M.G. Jenkins at the 19th Annual Conference on Composites, Materials, and Structures, Cocoa Beach, Florida, January 1995.

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Pillai, T. A. K. [University of Wisconsin]: Ellingson, W. A.; Sun, J. G. [Argonne National Laboratory]: Easler, T. E.; Szweda, A. [Dow Corning Corp.]

A correlation of air-coupled ultrasonic and thermal diffusivity data for CFCC materials

Presented at the ACerS's 21st Annual Meeting and Exposition on Composites, Advanced Ceramics, Materials and Structures, Jan. 12-16, 1997, Cocoa Beach, FL, and published in Ceramic Engineering and Science Proceedings, pp. 251-258, Vol. 18, Issue 4, 1997.

<279>

Raghuraman, S. [University of Illinois at Urbana-Champaign]:Lara-Curzio, E.; Ferber, M. K. [Oak Ridge National Laboratory]

Modeling of Flexural Behavior of CFCCs Using Finite Element Analysis

Presented at the 20th Annual Conference on Composites and Advanced Ceramics, Cocoa Beach, FL, January 8 (1996).

<280>

Raghuraman, S.; Stubbins, J. F. [University of Illinois at Urbana-Champaign]: Ferber, M. K.; Lara-Curzio, E.; Tortorelli, P. F. [Oak Ridge National Laboratory]

Oxidation Effects on Fiber/Matrix Interfaces in SiC/SiC Composite

Presented at the Symposium on Ceramic Matrix Composites and Advanced Structural Materials, The Materials Research Society, Boston, Massachusetts, November 28-December 2, 1994.

<281>

Raghuraman, S.; Stubbins, J. F. [University of Illinois at Urbana-Champaign]: Ferber, M. K.; Lara-Curzio, E.; Tortorelli, P. F. [Oak Ridge National Laboratory]

Effect of Temperature, Stress Oxidation and Loading Mode on R-Curve and Crack Growth in SiC/SiC

Presented at the 97th Annual Meeting of the American Ceramic Society, Cincinnati, OH, April 30-May 3, 1995.

<282>

Ramulu, M. [University of Washington]

Abrasive Waterjet Drilling and Cutting Mechanisms in Continuous Fibre Ceramic Composites

Presented at the 9th American Water Jet Conference, St. Louis, MO (1997).

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Ramulu, M.; Jenkins, M. G.; Guo, Z. H.[University of Washington]

Abrasive Waterjet Drilling and Cutting Mechanisms in Continuous Fibre Ceramic Composites

Presented at the 9th American Water Jet Conference, Dearborn, MI, August 23-26, 1997.

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Rebillat, F.; Lamon, J. [University of Bordeaux, France]: Lara-Curzio, E.; Ferber, M. K.; Besmann, T. M.[Oak Ridge National Laboratory]

Study of the Interfacial Characteristics of Ceramic Matrix Composites with Engineered Interfaces

Poster presentation at the Second International Conference on High Temperature Ceramic Matrix Composites, HT-CMC-2, Santa Barbara, CA, August 20-24, 1995.

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Reifsnider, K. L.; Liao, K.; McCormick, M.; Tiwari, A. [Virginia Polytechnic Institute & State University]

(95-GT-228) Fiber Fracture in Continuous Fiber Ceramic Composites: Concepts and Observations

Presented at Intl. Gas Turbine and Aeroengine Congress and Exposition, Houston, Texas, June 5-8, 1995.

<286>

Reifsnider, K. L.; Xu, Y. L.; Pastor, M. [Virginia Polytechnic Institute & State University]

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Lecture at International Conference on Brittle Materials, Warsaw, Poland, September 12-15, 1994.

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Richlen, S. L. [U.S. Department of Energy]: Karnitz, M. A.; Lowden, R.A.[Oak Ridge National Laboratory]

The Benefits of the Utilization of CFCCs in Industrial and Power Generation Applications

Presented at Symposium on Ceramic Matrix Composites: Advanced High-Temperature Structural Materials, at Boston, Massachusetts on November 28 - December 2, 1994.

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Shanmugham, S.; Liaw, P. [University of Tennessee]: Stinton, D. P.; Shwartz, O. J.; More, K. L.; Lara-Curzio, E.; Bleier, P.; Besmann, T. M. [Oak Ridge National Laboratory]

Development of Oxidation Resistant Interfacial Coatings for Nicalon(tm)/SiC Composites

Presented at the 19th Annual Cocoa Beach Conference and Exposition, Cocoa Beach, Florida, January 8-12, 1995.

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Stinespring, C. D.; Collazos, D. F.; Gupta, R. K. [West Virginia University]: Lara-Curzio, E.; Braski, D. B. [Oak Ridge National Laboratory]

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Presented at the 97th Annual Meeting of the American Ceramic Society, Cincinnati, OH, April 30-May 3, 1995.

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Presented at the 99th Annual Meeting and Exposition of the American Ceramic Society, Cincinnati, OH, May 4-7, 1997

<291>

Stuckey, J.; Sun, J. G.; Ellingson, W. A. [Argonne National Laboratory]

Rapid Infrared Characterization of Thermal Diffusivity in Continuous Fiber Ceramic Composite Components

Presented at the Eight International Symposium on Nondestructive Characterization of Materials to be held at Boulder, Colorado, June 15-20, 1997. This paper will be published in the meeting proceedings.

<292>

Tortorelli, P. F. [Oak Ridge National Laboratory]

High-Temperature Environmental Effects on CFCCs As Related To Industrial Applications

CFCC Working Group Meeting, October 17, 1996. (invited)

<293>

Tortorelli, P. F. [Oak Ridge National Laboratory]

Oxidation-Induced Microstructural Changes in Fiber-Reinforced SiC

Third International Conference on Microscopy of Oxidation , September 16-17, 1996
(poster)

<294>

Tortorelli, P. F. [Oak Ridge National Laboratory]

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21st Annual Restricted Meeting on Composites and Structures, January 29, 1997.

<295>

Tortorelli, P. F.; Lara-Curzio, E.; Riester, L.; Ferber, M. K. [Oak Ridge National Laboratory]

The Use of Indentation Tests to Examine Oxidation Effects on Fiber-Reinforced SiC Composites

Presented at the 96th Annual Meeting of the American Ceramic Society, Indianapolis, IN, April 25, 1994.

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Tortorelli, P. F.; Wijayawardhana, C. A.; Riester, L.; Lowden, R. A. [Oak Ridge National Laboratory]

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Presented at the 18th Annual Conference on Composites and Advanced Ceramic Materials, at Cocoa Beach, Florida, January 11, 1994.

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Widjaja, S.; Jakus, K.; Ritter, J. E. [University of Massachusetts]: Lara-Curzio, E.; Sun, E. Y.; Watkins, T. R. [Oak Ridge National Laboratory]: Brennan, J. J. [United Technologies Research Center]

High-Temperature Load Transfer in Nicalon(TM)/BMAS Glass-Ceramic Matrix Composites

Presented at the 21st Annual Conference on Composites, Advanced Ceramics, Materials and Structures, Cocoa Beach, Florida, January 16, 1997.

Organization Index

- ARC/Amercom
1
- Allied Signal
45, 77
- Allied Signal Aerospace Company
3
- Argonne National Laboratory
36, 148, 180, 278, 291
- Arizona State University
32
- Associated Western University Northwest
46
- Babcock & Wilcox
5, 175
- CEIT, Spain
16
- Cleveland State University
175
- Dartmouth College
91
- Dow Corning Corp.
26, 33, 106, 241, 278
- Du Pont Lanxide Composites, Inc.
25, 34, 35, 171
- Foster Wheeler Development Corporation
25, 171
- GE Corporate R&D
29, 43, 198, 199
- GE Industrial & Power Systems, Power Generation Engineering
29
- General Electric Corporation
196, 197, 200
- General Electric Power Generation
196
- Hyper-Therm, Incorporated
266
- Idaho National Engineering Laboratory
157
- Institute for Defense Analysis
47, 146
- Iowa State University
48, 157

- LCTS, Pessae, France
143, 144, 240
- Luxar Corporation
73
- MER Corp.
31
- Materials Sciences Corporation
85-90
- McDermott Technology, Inc.
44
- McDonnell Douglas Aerospace
105
- Michigan Technological University
182
- Morton International
166
- NASA Lewis Research Center
204
- National Institute of Standards and Technology
11, 69, 219
- New Mexico Tech.
40, 42, 123
- North Carolina A&T State University
161
- North Carolina State University
2, 161, 192, 193, 265
- Northwestern University
44
- Oak Ridge Associated Universities
28, 170
- Oak Ridge National Laboratory
2, 4, 6, 8-10, 16-24, 27, 30-32, 36, 37, 40-42, 45, 48-64, 67, 68, 72, 77-80, 82-84, 93-123, 125-127, 130-132, 136-138, 140, 142-144, 143, 144, 146-149, 158-160, 162, 164, 167, 168, 170, 172-174, 179, 181, 183, 192-195, 195A, 202, 203, 205-212, 216-218, 218A, 220, 223, 225-261, 264-275, 277, 279-281, 284, 287-290, 292-297
- Office of Scientific and Technical Information
133
- Pacific Northwest Laboratory
83
- Pennsylvania State University
46, 123, 155, 204

- Quadrax Advanced Materials Systems, Inc.
78
- Quadrox Corporation
70
- RCG/Hagler, Bailly, Inc.
139, 185
- RJ Lee Group
186
- Rutgers University
45
- Scaled Technology Works
38, 39, 81, 201, 224
- Solar
233
- Technology Management Associates
187
- Tennessee Tech.
274
- Textron Specialty Materials
85-87, 123, 156
- TopoMetrix
30
- U.S. DOE, Office of Industrial Technologies
84, 145, 146, 188, 189
- U.S. Department of Energy
287
- U.S. Department of Energy, Chicago Operations Office
157
- United States Advanced Ceramics Association
190, 191
- United Technologies Research Center
174, 212, 297
- University of Burdeaux, France
59, 111, 142-144, 245, 284
- University of California-Los Angeles
182
- University of Cincinnati
91, 92, 149-154, 162, 164-170
- University of Dayton Research Institute
26, 77
- University of Illinois at Urbana-Champaign
27, 28, 41, 140, 233, 279-281

- University of London
16
- University of Massachusetts
174, 212, 297
- University of Michigan
66, 82
- University of Tennessee
48, 125, 147, 288
- University of Washington
38, 39, 65, 66, 68-71, 73-81, 94, 101, 124, 128, 129,
136, 137, 141, 183, 184, 201, 213-224, 237, 262, 263,
276, 277, 282, 283
- University of Wisconsin
278
- Virginia Polytechnic Institute & State University
135, 285, 286
- Washington University
97, 98, 231, 235
- West Virginia University
289
- Wright-Patterson AFB
77

Author Index

- Ahluwalia, K. S.
171
- Ailey, K. S.
2, 192, 193, 265
- Arnold, C. L.
4, 194, 195
- Arya, P. V.
31
- Ashgaugh, N.E.
77
- Bae, Y. W.
255
- Becher, P. F.
62, 118-122, 138, 256-259
- Beecher, S. C.
6, 8, 31, 32, 164, 195A
- Besmann, T. M.
9, 93, 112, 142-144, 147, 225, 245, 255, 284, 288, 290
- Blass, J. J.
10
- Bleier, P.
147, 288
- Boisvert, R.
106, 241
- Bowers, D.
99, 105
- Braski, D. N.
138, 289
- Braun, L. M.
11
- Brennan, J. J.
174, 212, 297
- Brun, M. K.
29, 197-200
- Butler, Elizabeth P.
45
- CFCC Program
12-15
- Cai, H.
170
- Calderon Moreno, J. M.
16

Cannon, W. Roger

45

Caton, G. M.

17-24, 146, 179

Chawla, K. K.

40, 42, 123, 202

Cho, S. M.

25

Chou, Y-S.

46

Chuck, L.

26

Clark, A.

274

Cofer, C. G.

27, 28

Collazos, D. F.

289

Cooley, K. M.

253, 254

Corman, G. S.

29, 196-200

Corrigan, T. D.

32

Cox, T. D.

146

Craig, D. F.

84

Danforth, Stephen C.

45

DiPietro, S. G.

85-87, 123

Dieckman, S. L.

36

Dinwiddie, R. B.

6, 8, 30-32, 164, 195A

Dravid, V. P.

44

Durkin, K.

180

Easler, T. E.

278

- Economy, J.
27, 28
- Eldrid, R.
29, 198
- Elizalde, M. R.
16
- Elledge, T.
17-24
- Ellingson, W. A.
36, 180, 278, 291
- Faubion, G.
73
- Federer, J. I.
37
- Fehlmann, K. R.
38, 39, 81, 201, 224
- Ferber, M. K.
27, 28, 40-42, 63, 64, 99-116, 123, 140, 142-144, 170,
172, 173, 181, 202, 203, 233, 236-250, 279-281, 284, 295
- Goela, J. S.
166
- Goettler, R. W.
44
- Goetze, R. H.
196
- Gonczy, S. T.
45, 77
- Gopalsami, N.
36
- Guo, Z. H.
141, 283
- Gupta, R. K.
289
- Gupta, V.
91
- Hahn, H. T.
182
- Hansen, D.
41
- Harkins, B.
233
- Heinen, J. T.
196

- Hellmann, J. R.
46, 123, 155, 204
- Hemann, John H.
175
- Henager, Jr., C. H.
83
- Holmes, J. W.
66
- Homeny, J.
41
- Hong, W. S.
47, 146
- Hsu, D. K.
48
- Hsueh, C. H.
49-64, 113, 181, 205-211, 246
- Jakus, K.
174, 212, 297
- Jenkins, M. G.
38, 39, 65, 66, 68-71, 73-81, 94, 101, 124, 128, 129, 136, 137,
141, 183, 184, 201, 213-224, 237, 262, 263, 276, 277, 283
- Jones, M. C.
82
- Jones, M. L.
88-90
- Jones, R. H.
83
- Jonkouski, J. E.
157
- Kantos, P.
204
- Karnitz, M. A.
84, 146, 179, 287
- Keiser, J.
233
- Kelkar, Ajit D.
161
- Kibler, J. J.
85-90
- Kim, H. G.
182
- Kirkland, T. P.
172

- Kopper, A.
82
- Koss, D. A.
204
- Kumaria, S.
91, 92
- Kupp, E. R.
93, 225, 254, 290
- Kupp, L.
255
- Kupperman, D. S.
36
- Lamon, J.
59, 112, 142-144, 240, 245, 284
- Lara-Curzio, E.
4, 16, 27, 28, 40, 45, 59, 68, 77-80, 82, 93-117, 126, 137, 140, 142-144,
147, 172, 174, 183, 194, 195, 202, 203, 212, 216-218, 218A, 220,
223, 225-255, 266-269, 274, 279-281, 284, 288-290, 295, 297
- Lee, W.
254, 255
- Lee, W. Y.
253
- Liao, K.
285
- Liaw, P. K.
48, 125, 147, 288
- Lin, H. T.
9, 118-122, 138, 256-259, 266, 274
- Lowden, R. A.
2, 8, 42, 48, 93, 113, 114, 123, 125-127, 148, 149, 159, 160, 162,
167, 168, 173, 181, 192, 193, 246, 247, 249, 250, 260, 261,
265, 267-275, 287, 290, 296
- Luthra, K. L.
29, 197-200
- Mark, K. Y.
124, 262, 263
- Martin, D. C.
82
- McClung, R. W.
36
- McCormick, M.
285

- McHarque, C.J.
48
- McLaughlin, J. C.
9
- McQuire, D. J.
36
- Mello, M. D.
70, 78
- Meschter, P. J.
29, 198, 200
- Miller, J. H.
125
- Miriyala, N.
48
- Misture, S. T.
254
- More, K. L.
2, 4, 28, 117, 126, 127, 147, 158, 192-195, 251-255,
264-275, 288
- Munson, K. L.
128, 129, 276
- Narayan, Jagdish
161
- Narayanan, T. V.
25
- Naslain, R.
143, 144
- Neogi, J.
233
- Nijhawan, S.
159
- Pak, S. S.
134
- Palko, J.
197
- Pandey, R.
182
- Pastor, M.
135, 286
- Piccola, J. P.
68, 78-80, 136, 137, 216, 223, 277
- Pillai, T. A. K.
278

- Plucknett, K. P.
 138
- Pylkki, R. J.
 30
- Quinn, G. D.
 69, 219
- Rabin, B.H.
 157
- Raghuraman, S.
 140, 233, 279-281
- Ramulu, M.
 38, 81, 141, 224, 282, 283
- Raptis, A. C.
 36
- Rebillat, F.
 59, 112, 142-144, 240, 245, 284
- Reifsnider, K. L.
 285, 286
- Reifsnider, Ken
 135
- Rhyne, E.
 204
- Richlen, S. L.
 84, 145, 146, 287
- Ridgon, M. A.
 47
- Riester, L.
 42, 159, 160, 249, 273, 295, 296
- Riester, Laura
 45
- Ritter, J. E.
 174, 212, 297
- Ruggles, M. B.
 10
- Russ, C. M.
 97, 98, 231, 235
- Russ, S. E.
 202
- Saini, V.
 48
- Sambasivan, S.
 44

- Sandifer, Jerry B.
175
- Sankar, Jagannathan
161
- Schwarz, O. J.
271, 272
- Seltzer, A. H.
25
- Shah, A.C.
25
- Shanmugham, S.
147, 288
- Sheen, S. H.
36
- Shinavski, R.
266
- Shwartz, O. J.
147, 288
- Simpson, J.
233
- Simpson, Jr., W. A.
36
- Singh, D.
148
- Singh, J. P.
148
- Singh, R. N.
91, 92, 149-154, 162, 164-170
- Snead, L.L.
48
- Steffier, W. S.
266
- Stinchcomb, Wayne
135
- Stinespring, C. D.
289
- Stinton, D. P.
93, 147, 225, 255, 288, 290
- Stough, M.A.
155
- Stubbins, J. F.
280, 281

- Stuckey, J.
291
- Sun, E.Y.
174, 212, 297
- Sun, J. G.
278, 291
- Szweda, A.
26, 106, 241, 278
- Temple, R. C.
182
- Thiemann, N.
180
- Thompson, R. B.
157
- Tiwari, A.
285
- Tolley, A.N.
134
- Tortorelli, P. F.
83, 115-117, 122, 127, 158-160, 248, 251, 252,
259, 266, 271, 272, 274, 275, 280, 281, 292-296
- Underwood, A.
273
- Vaidyanathan, K. Ranji
161
- Wang, H.
150-153, 162, 164-167
- Wang, H. Y.
149
- Watkins, T. R.
174, 212, 254, 297
- Webb, J. E.
154, 168-170
- Weddell, J. K.
25, 171
- Wereszczak, A. A.
41, 42, 64, 78, 113, 172, 173, 181, 203, 246, 249, 250
- West, P. E.
30
- Widjaja, S.
174, 212, 297
- Wijayawardhana, C. A.
160, 296

Withers, J. C.

31

Xu, Y.

28

Xu, Y. L.

286

Ye, Pei

175

Yen, C. F.

88-90

Yu, N.

48

Zangvil, A.

28

Zawada, L. P.

77