

Journal of Composites Technology and Research

Subject Index to Volume 22

2000

A

Adhesion

Evaluation of the Effect of a Custom Fiber Surface Treatment on the Adhesion Level in a Polymer-Based Composite Using the Single Fiber Fragmentation Test (Bradford, D, Lease, K, and Sherwood, P), April, 53

B

Bolt bearing

Bolt Bearing Behavior of Highly Loaded Polymer Matrix Composite Joints at Elevated Temperatures With and Without Clamp-Up (Wright, RJ, Johnson, WS, Sacks, S, and Ahmad, H), Jan., 33

C

Carbon fibers

Evaluation of the Effect of a Custom Fiber Surface Treatment on the Adhesion Level in a Polymer-Based Composite Using the Single Fiber Fragmentation Test (Bradford, D, Lease, K, and Sherwood, P), April, 53

Classical laminate theory

A Two-Dimensional Rule-of-Mixtures Micromechanics Model for Woven Fabric Composites (Gao, XL and Mall, S), April, 60

Compliance

Numerically Based Compliance Calibration for Steel Frame Assisted Tension Specimen (Yotte, S and Quenisset, JM), April, 91

Composite

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

Numerically Based Compliance Calibration for Steel Frame Assisted Tension Specimen (Yotte, S and Quenisset, JM), April, 91

Composite damage

The Durability of Fiber Composites—The Case for Mechanism-Based Models (Spearling, SM), Oct., 177

Composite failure

Evaluation of the Effect of a Custom Fiber Surface Treatment on the Adhesion Level in a Polymer-Based Composite Using the Single Fiber Fragmentation Test (Bradford, D, Lease, K, and Sherwood, P), April, 53

Composite material

Assessment of Residual Composite Properties as Influenced by Thermal Mechanical Aging (Wood, JD, Plunkett, RB, Tsang, PH, Lesko, JJ, and Verghese, KE), April, 82

Composites

Failure Initiation in Translaminar Reinforced Composites (Dickinson, LC, Farley, GL, and Hinders, MK), Jan., 23

Composites fatigue

The Durability of Fiber Composites—The Case for Mechanism-Based Models (Spearling, SM), Oct., 177

Compression strength

A New Compression Test Fixture for Unnotched or Notched Thin Composite Laminates (Bardis, JD, Kedward, KT, Bish, JO, and Tsotsis, TK), July, 136

Computed tomography

Some Results from X-ray Computed Tomography Applied to Metal Matrix Composites (Gonzalez, M, Dominguez, G, and Bathias, C), Jan., 45

Cylindrical indentation

Cylindrical Indentation of Orthotropic Laminates on Elastic Foundations (Chen, CF), July, 127

D

Damping

Dynamic Elastic Modulus and Vibrational Damping in Nicalon SiC_xO_y Fiber/Borosili-

cate Glass Composites: Effects of Thermal Cycling (Wolfenden, A, Anthony, DL, Chawla, KK, and Boccaccini, AR), April, 76

Degradation

Mechanism-Based Modeling of Long-Term Degradation (McManus, HL, Foch, BJ, and Cunningham, RA), July, 146

Delamination

A Life Prediction Methodology for Thick Section Composites Used in Civil Infrastructure (Lesko, JJ, Senne, J, and Case, SW), Oct., 241

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 2. Fracture (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 232

Scaling of First-Ply Failure and Strength in $[+\theta_n/-\theta_n/90_{2n}]_s$ Laminates: Experiments and Predictions (Lavoie, JA and Morton, J), July, 153

Discrete tow model

A Simple Discrete-Tow Model for Analysis of Textile Composites (Averill, RC and Carrier, CR), Oct., 196

Double notch

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

Durability

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 1. Durability and Shear Strength (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 224

E

Elastic modulus

Dynamic Elastic Modulus and Vibrational Damping in Nicalon SiC_xO_y Fiber/Borosilicate Glass Composites: Effects of Thermal Cycling (Wolfenden, A, Anthony, DL, Chawla, KK, and Boccaccini, AR), April, 76

Environmental effect

Fatigue Behavior of Glass-Reinforced Epoxy Resin Submitted to Hot-Wet Aging (Zaffaroni, G and Cappelletti, C), Oct., 207

Epoxy composites

Lightning Strike of Perforated Carbon Fiber Epoxy Laminar Flow Panels (O'Driscoll, D, Hardwick, J, Young, T, and Ryan, J), April, 71

Experiment

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

F**Fatigue**

A Life Prediction Methodology for Thick Section Composites Used in Civil Infrastructure (Lesko, JJ, Senne, J, and Case, SW), Oct., 241

Tensile Behavior of Filament-Wound Composites in Medium Vacuum (Bakis, CE and Shirey, CL), Oct., 213

Fatigue behavior

Fatigue Behavior of Glass-Reinforced Epoxy Resin Submitted to Hot-Wet Aging (Zaffaroni, G and Cappelletti, C), Oct., 207

Fatigue crack growth

The Durability of Fiber Composites—The Case for Mechanism-Based Models (Spearling, SM), Oct., 177

Fiber tows

A Simple Discrete-Tow Model for Analysis of Textile Composites (Averill, RC and Carrier, CR), Oct., 196

Fiber-reinforced plastics

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 1. Durability and Shear Strength (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 224

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 2. Fracture (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 232

First-ply failures

Scaling of First-Ply Failure and Strength in $[+\theta_n/-\theta_n/90_{2n}]_s$ Laminates: Experiments and Predictions (Lavoie, JA and Morton, J), July, 153

Flywheel

Tensile Behavior of Filament-Wound Composites in Medium Vacuum (Bakis, CE and Shirey, CL), Oct., 213

G**Glass fiber composites**

Fatigue Behavior of Glass-Reinforced Epoxy Resin Submitted to Hot-Wet Aging (Zaffaroni, G and Cappelletti, C), Oct., 207

Glassmatrix composites

Dynamic Elastic Modulus and Vibrational Damping in Nicalon SiC_xO_y Fiber/Borosilicate Glass Composites: Effects of Thermal Cycling (Wolfenden, A, Anthony, DL, Chawla, KK, and Boccaccini, AR), April, 76

Graphite-epoxy composite

Effect of High-Frequency Low-Amplitude Impact Loads on Polymeric Composites (Thomas, R and Krishnamurthy, R), Jan., 40

H**Highspeed civil transport**

Assessment of Residual Composite Properties as Influenced by Thermal Mechanical Aging (Wood, JD, Plunkett, RB, Tsang, PH, Lesko, JJ, and Verghese, KE), April, 82

I**Inclined**

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

Inertia

High Strain Rate Characterization of a Glass/Epoxy Composite (Okoli, OI and Smith, GF), Jan., 3

Interlaminar stresses

Cylindrical Indentation of Orthotropic Laminates on Elastic Foundations (Chen, CF), July, 127

Iosipescu

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

Iteration algorithm

Cylindrical Indentation of Orthotropic Laminates on Elastic Foundations (Chen, CF), July, 127

L**Life prediction**

Residual Strength-Based Life Predictions of Composite Materials Under Combined Dam-

age Mechanisms (Case, SW and Halverson, HG), Oct., 187

Lightning strike

Lightning Strike of Perforated Carbon Fiber Epoxy Laminar Flow Panels (O'Driscoll, D, Hardwick, J, Young, T, and Ryan, J), April, 71

Long-term degradation

Mechanism-Based Modeling of Long-Term Degradation (McManus, HL, Foch, BJ, and Cunningham, RA), July, 146

M**Matrix cracking**

Scaling of First-Ply Failure and Strength in $[+\theta_n/-\theta_n/90_{2n}]_s$ Laminates: Experiments and Predictions (Lavoie, JA and Morton, J), July, 153

Mechanical aging

Assessment of Residual Composite Properties as Influenced by Thermal Mechanical Aging (Wood, JD, Plunkett, RB, Tsang, PH, Lesko, JJ, and Verghese, KE), April, 82

Metal matrix composites

Some Results from X-ray Computed Tomography Applied to Metal Matrix Composites (Gonzalez, M, Dominguez, G, and Bathias, C), Jan., 45

Micromechanics

A Two-Dimensional Rule-of-Mixtures Micromechanics Model for Woven Fabric Composites (Gao, XL and Mall, S), April, 60

Residual Strength-Based Life Predictions of Composite Materials Under Combined Damage Mechanisms (Case, SW and Halverson, HG), Oct., 187

O**Open hole compression**

A New Compression Test Fixture for Unnotched or Notched Thin Composite Laminates (Bardis, JD, Kedward, KT, Bish, JO, and Tsotsis, TK), July, 136

Out-of-plane failure

A Life Prediction Methodology for Thick Section Composites Used in Civil Infrastructure (Lesko, JJ, Senne, J, and Case, SW), Oct., 241

P**Perforated flow panels**

Lightning Strike of Perforated Carbon Fiber Epoxy Laminar Flow Panels (O'Driscoll, D,

Hardwick, J, Young, T, and Ryan, J), April, 71

Polymer matrix composite laminates

A New Compression Test Fixture for Un-notched or Notched Thin Composite Laminates (Bardis, JD, Kedward, KT, Bish, JO, and Tsotsis, TK), July, 136

R

Residual strength

Residual Strength-Based Life Predictions of Composite Materials Under Combined Damage Mechanisms (Case, SW and Halverson, HG), Oct., 187

S

Satin weaves

A Two-Dimensional Rule-of-Mixtures Micromechanics Model for Woven Fabric Composites (Gao, XL and Mall, S), April, 60

Shear testing

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

Short beam

Evaluation of Four Composite Shear Test Methods by Digital Speckle Strain Mapping and Fractographic Analysis (Melin, LG, Neumeister, JM, Pettersson, KB, Johansson, H, and Asp, LE), July, 161

T

Textile composite materials

A Simple Discrete-Tow Model for Analysis of Textile Composites (Averill, RC and Carrier, CR), Oct., 196

Titanium matrix composites

Stress Transfer in the Fiber/Matrix Interface of Titanium Matrix Composites due to Thermal Mismatch and Reaction Layer Develop-

ment (Peters, PW, Hemptenmacher, J, and Werner, A), Jan., 12

Toughness testing

Numerically Based Compliance Calibration for Steel Frame Assisted Tension Specimen (Yotte, S and Quenisset, JM), April, 91

V

Vacuum

Tensile Behavior of Filament-Wound Composites in Medium Vacuum (Bakis, CE and Shirey, CL), Oct., 213

W

Wood

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 1. Durability and Shear Strength (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 224

Fiber-Reinforced Composite and Wood Bonded Interfaces: Part 2. Fracture (Qiao, P, Davalos, JF, and Trimble, BS), Oct., 232