

Journal of Composites Technology & Research

Index to Volume 9

1987

| Number | Issue | Pages |
|--------|--------|---------|
| 1 | Spring | 1-32 |
| 2 | Summer | 33-80 |
| 3 | Fall | 81-120 |
| 4 | Winter | 121-188 |

A

- Adams, D. F. and Walrath, D. E.:** In-plane and interlaminar isopescu shear properties of various graphite fabric/epoxy laminates, Fall, 88
- Akhtar, A. and Wong, J. Y.:** Failure analysis of brittle fracture in nonceramic insulators, Fall, 95
- Alper, J. M.:** *see* Gause, L. W. and Alper, J. M.

B

- Bending:** Thin-walled laminated composite cylindrical tubes: Part II—bending analysis (dos Reis and Goldman), Summer, 53
- Boron-aluminum:** Deformation of metal-matrix tensile coupon with a central slot: an experimental study (Post, Czarnek, Joh, Jo, and Guo), Spring, 3
- Boundary value problems:** Thin-walled laminated composite cylindrical tubes: Part I—boundary value problems (dos Reis and Goldman), Summer, 47
- Brewer, J.:** *see* Lagace, P., Brewer, J., and Kassapoglou, C.

C

- Caslini, M. Zanotti, C., and O'Brien, T. K.:** Study of matrix cracking and delamination in glass/epoxy laminates, Winter, 121
- Cohen, D.:** *see* Hyer, M. W., Cooper, D. E., Cohen, D., and Tompkins, S. S.
- Composite shafts:** Thin-walled laminated composite cylindrical tubes: Part III—critical speed analysis (dos Reis, Goldman, and Verstrate), Summer, 58
- Composite tubes**
 Temperature and deflection data from the asymmetric heating of cross-ply composite tubes (Hyer, Cooper, Cohen, and Tompkins), Spring, 14

- Thin-walled laminated composite cylindrical tubes: Part II—ending analysis (dos Reis and Goldman), Summer, 53
- Cooper, D. E.:** *see* Hyer, M. W., Cooper, D. E., Cohen, D., and Tompkins, S. S.
- Critical speeds:** Thin-walled laminated composite cylindrical tubes: Part III—critical speed analysis (dos Reis, Goldman, and Verstrate), Summer, 58
- Cylindrical tubes:** Thin-walled laminated composite cylindrical tubes: Part I—Boundary value problems (dos Reis and Goldman), Summer, 47
- Czarnek, R.:** *see* Post, D., Czarnek, R., Joh, D., Jo, J., and Guo, Y.

D

- Daniel, I. M.:** *see* Yaniv, G., Peimanidis, G., and Daniel, I. M.
- Davidson, J. A.:** The challenge and opportunity for composites in structural orthopaedic applications, Winter, 151
- Deflections:** Temperature and deflection data from the asymmetric heating of cross-ply composite tubes (Hyer, Cooper, Cohen, and Tompkins), Spring, 14
- Deformation:** Deformation of a metal-matrix tensile coupon with a central slot: an experimental study (Post, Czarnek, Joh, Jo, and Guo), Spring, 3
- Delamination**
 The effect of thickness on interlaminar stresses and delamination in straight-edged laminates (Lagace, Brewer, and Kassapoglou), Fall, 81
 Study of matrix cracking and delamination in glass/epoxy laminates (Caslini, Zanotti, and O'Brien), Winter, 121
- Displacements:** A mixed updated Lagrangian formulation for plane elastic problems (Reddy and Heyliger), Winter, 131
- dos Reis, H. L. M. and Goldman, R. B.:**
 Thin-walled laminated composite cylindrical tubes: Part I—boundary value problems, Summer, 47
 Thin-walled laminated composite cylindrical tubes: Part II—bending analysis, Summer, 53
- dos Reis, H. L. M., Goldman, R. B., and Verstrate, P. H.:** Thin-walled laminated composite cylindrical tubes: Part III—critical speed analysis, Summer, 58
- Double cantilever beam specimen:** Investigation of fiber bridging in double cantilever beam specimens (Johnson and Mangalgiro), Spring, 10

E-F

- Environmental effects:** Method for hygromechanical characterization of graphite/epoxy composites (Yaniv, Peimanidis, and Daniel), Spring, 21
- Fabric composites:** In-plane and interlaminar isopescu shear properties of various graphite fabric/epoxy laminates (Adams and Walrath), Fall, 88
- Fatigue (materials):** Structural properties of braided graphite/epoxy composites (Gause and Alper), Winter, 141
- Fiber bridging:** Investigation of fiber bridging in double cantilever beam specimens (Johnson and Mangalgiro), Spring, 10
- Fiber composites**
 Water absorption of resins and composites:
 I. epoxy homopolymers and copolymers (Woo and Piggott), Fall, 101
 Water absorption of resins and composites:
 II. diffusion in carbon and glass reinforced epoxies (Woo and Piggott), Winter, 162
- Filament winding:** Filament-wound spherical pressure vessels: a state-of-the-art review (Lewis), Summer, 33
- Fracture:** Impact-induced fracture in a quasi-isotropic laminate (Joshi and Sun), Summer, 40
- Fracture mechanics:** Study of matrix cracking and delamination in glass/epoxy laminates (Caslini, Zanotti, and O'Brien), Winter, 121
- Fracture mirror:** Failure analysis of brittle fracture in nonceramic insulators (Akhtar and Wong), Fall, 95

G

- Gause, L. W. and Alper, J. M.:** Structural properties of braided graphite/epoxy composites, Winter, 141
- Glass epoxy:** Study of matrix cracking and delamination in glass/epoxy laminates (Caslini, Zanotti, and O'Brien), Winter, 121
- Goldman, R. B.**
see dos Reis, H. L. M. and Goldman, R. B.
see dos Reis, H. L. M., Goldman, R. B., and Verstrate, P. H.
- Graphite/epoxy composites**
 The effect of thickness on interlaminar stresses and delamination in straight-edged laminates (Lagace, Brewer, and Kassapoglou), Fall, 81

Method for hygromechanical characterization of graphite/epoxy composite (Yaniv, Peimanidis, and Daniel), Spring, 21
Guo, Y.: *see* Post, D., Czarnek, R., Joh, D., Jo, J., and Guo, Y.

H

Haupt, E.: *see* Mallick, P. K., Little, R. E., and Haupt, E.
Heyliger, P. R.: *see* Reddy, J. N. and Heyliger, P. R.
Hip loading: The challenge and opportunity for composites in structural orthopaedic applications (Davidson), Winter, 151
Hyer, M. W., Cooper, D. E., Cohen, D., and Tompkins, S. S.: Temperature and deflection data from the asymmetric heating of cross-ply tubes, Spring, 14
Hygroscopic expansion: Method for hygromechanical characterization of graphite/epoxy composite (Yaniv, Peimanidis, and Daniel), Spring, 21

I

Impact

Impact-induced fracture in a quasi-isotropic laminate (Joshi and Sun), Summer, 40
 Structural properties of braided graphite/epoxy composites (Gause and Alper), Winter, 141
Implant material: The challenge and opportunity for composites in structural orthopaedic applications (Davidson), Winter, 151
Interlaminar fracture toughness: Investigation of fiber bridging in double cantilever beam specimens (Johnson and Mangalgiri), Spring, 10
Interlaminar shear: In-plane and interlaminar iospescu shear properties of various graphite fabric/epoxy laminates (Adams and Walrath), Fall, 88
Interlaminar stresses: The effect of thickness on interlaminar stresses and delamination in straight-edged laminates (Lagace, Brewer, and Kassapoglou), Fall, 81
Iospescu shear: In-plane and interlaminar iospescu shear properties of various graphite fabric/epoxy laminates (Adams and Walrath), Fall, 88

J-K

Jo, J.: *see* Post, D., Czarnek, R., Joh, D., Jo, J., and Guo, Y.
Joh, D.: *see* Post, D., Czarnek, R., Joh, D., Jo, J., and Guo, Y.
Johnson, W. S. and Mangalgiri, P. D.: Investigation of fiber bridging in double cantilever beam specimens, 10
Joshi, S. P. and Sun, C. T.: Impact-induced fracture in a quasi-isotropic laminate, Summer, 40
Kassapoglou, C.: *see* Lagace, P., Brewer, J., and Kassapoglou, C.

L

Lagace, P., Brewer, J., and Kassapoglou, C.: The effect of thickness on interlaminar stresses and delamination in straight-edged laminates (Lagace, Brewer, and Kassapoglou), Fall, 81
Lagrangian formulations: A mixed updated Lagrangian formulation for plane elastic problems (Reddy and Heyliger), Winter, 131
Laminated composites
 Impact-induced fracture in a quasi-isotropic laminate (Joshi and Sun), Summer, 40
 Thin-walled laminated composite cylindrical tubes: Part I—boundary value problems (dos Reis and Goldman), Summer, 47
Lewis, G.: Filament-wound spherical pressure vessels: a state-of-the-art review, Summer, 33
Little, R. E.: *see* Mallick, P. K., Little, R. E., and Haupt, E.

M-O

Mallick, P. K., Little, R. E., and Haupt, E.: Strength and failure modes in notched pultruded rod tension specimens, Fall, 108
Mangalgiri, P. D.: *see* Johnson, W. S. and Mangalgiri, P. D.
Metal-matrix composites: Deformation of metal-matrix tensile coupon with a central slot: an experimental study (Post, Czarnek, Joh, Jo, and Guo), Spring, 3
Nonceramic insulators: Failure analysis of brittle fracture in nonceramic insulators (Akhtar and Wong), Fall, 95
O'Brien, T. K.: *see* Caslini, M., Zanotti, C., and O'Brien, T. K.
Orthopaedic implants: The challenge and opportunity for composites in structural orthopaedic applications (Davidson), Winter, 151

P

Peimanidis, G.: *see* Yaniv, G., Peimanidis, G., and Daniel, I. M.
Piggott, M. R.: *see* Woo, M. and Piggott, M. R.
Plane elastic problems: A mixed updated Lagrangian formulation for plane elastic problems (Reddy and Heyliger), Winter, 131
Post, D., Czarnek, R., Joh, D., Jo, J., and Guo, Y.: Deformation of metal-matrix tensile coupon with a central slot: an experimental study, Spring, 3
Pultrusion process: Strength and failure modes in notched pultruded rod tension specimens (Mallick, Little, and Haupt), Fall, 108

R

Reddy, J. N. and Heyliger, P. R.: A mixed updated Lagrangian formulation for plane elastic problems, Winter, 131
Robinson, M. J.: Advanced composite tetra-truss for the space station, Fall, 113

Rods: Strength and failure modes in notched pultruded rod tension specimens (Mallick, Little, and Haupt), Fall, 108
Rotordynamic response: Thin-walled laminated composite cylindrical tubes: Part III—critical speed analysis (dos Reis, Goldman, and Verstrate), Summer, 58

S

Spherical pressure vessels: Filament-wound spherical pressure vessels: a state-of-the-art review (Lewis), Summer, 33
Stiffness matrix: Thin-walled laminated composite cylindrical tubes: Part II—bending analysis (dos Reis and Goldman), Summer, 53
Stress analysis: Filament-wound spherical pressure vessels: a state-of-the-art review (Lewis), 33
Stress corrosion cracking: Failure analysis of brittle fracture in nonceramic insulators (Akhtar and Wong), Fall, 95
Sun, C. T.: *see* Joshi, S. P. and Sun, C. T.

T-V

Talreja, R.: European composite forum, Spring, 26
Thermal effects: Temperature and deflection data from the asymmetric heating of cross-ply composite tubes (Hyer, Cooper, Cohen, and Tompkins), Spring, 14
Three-dimensional fabrics: Structural properties of braided graphite/epoxy composites (Gause and Alper), Winter, 141
Tompkins, S. S.: *see* Hyer, M. W., Cooper, D. E., Cohen, D., and Tompkins, S. S.
Verstrate, P. H.: *see* dos Reis, H. L. M., Goldman, R. B., and Verstrate, P. H.

W

Walrath, D. E.: *see* Adams, D. F. and Walrath, D. E.
Water absorption
 Water absorption of resins and composites:
 I. epoxy homopolymers and copolymers (Woo and Piggott), Fall, 101
 Water absorption of resins and composites:
 II. diffusion in carbon and glass reinforced epoxies (Woo and Piggott), Winter, 162
Water diffusion
 Water absorption of resins and composites:
 I. epoxy homopolymers and copolymers (Woo and Piggott), Fall, 101
 Water absorption of resins and composites:
 II. diffusion in carbon and glass reinforced epoxies (Woo and Piggott), Winter, 162
Wong, J. Y.: *see* Akhtar, A. and Wong, J. Y.
Woo, M. and Piggott, M. R.:
 Water absorption of resins and composites:
 I. epoxy homopolymers and copolymers, Fall, 101
 Water absorption of resins and composites:
 II. diffusion in carbon and glass reinforced epoxies, Winter, 162
World of Composites
 Advanced composite optical system Gimbal, Spring, 26

Advanced composite tetratruss for the space station (Robinson), 113
C. Michael Hudson receives the ASTM award of Merit, Winter, 167
Center for cement composite materials, Summer, 64
The composite section of ASTM Committee F-4, Winter, 167
The Edison Materials Technology Center is operational, Winter, 168

European composite forum (Talreja), Spring, 26
International collaboration in composites research, Fall, 115
National Center for Composite Materials, Fall, 114
SPE Composites Institute publishes directory of resources, Fall, 113
Symposium on advances in thermoplastic matrix composite materials, Summer, 63
Symposium on performance of composites in severe environments, Summer, 64

Y-Z

Yaniv, G., Peimanidis, G., and Daniel, I. M.: Method for hygromechanical characterization of graphite/epoxy composites, Spring, 21
Zanotti, C.: *see* Caslini, M., Zanotti, C., and O'Brien, T. K.