Toward the Development of a Standard for Characterizing the Energy Absorption of Composite Materials: Materials Systems by Innovative Design and Mechanical and Electrical Properties

Y. Sakamoto (Tokyo University of Science)

Behavior of an Axially Compressed Composite Stiffened Panel after Low-velocity Impact

Y. Aoki (JAXA)

An Experimental Study on the Tensile Mechanical Properties of Hybrid C/GFRP Sheets under Elevated and High Temperatures

S. Cao (Ibaraki University)

Ultrasonic Monitoring System for Real-time Evaluation of Debonding Progress in CFRP Bonded Structures

K. Natori (The University of Tokyo)

Chair: Y. Yamaguchi and P. Feraboli

9:30

Opening Address for SIT Sponsored Session

40min.

Invited

9:40

Greeting (Room 605) PL-1 (Room 605) Technologies Contribution to Dassault Aviation Business Jets

Serge Dellus (Dassault Aviation, President SAMPE Europe)

Chair: T. Tanimoto

30min.

Keynote

H. Asanuma (Chiba University)

Lunch Break

9:50

New Thermoelectric Oxide Materials and Electronic Structures

S. Sugihara (Shonan Institute of Technology)

Topics of R&D on Advanced Composite Materials for Aircrafts in Japan

Y. Yamaguchi (KYC-Japan)

Chair: H. Hatta

40min.

Keynote

Mehrdad N. Ghasemi-Nejhad (University of Hawaii at Manoa)

Coffee Break

10:20

Development of Smart Composites and Nanocomposites at Hawaii Smart Composites and Nanotechnology Laboratories

J. Paolozzi (Sapienza, Univ. of Rome)

40min.

Invited

A. Paolozzi (Sapienza, Univ. of Rome)

10:40

Lunch Break

11:05

SL-1 (Room 605) Airbus Structure Technology: Next Steps and Vision

Bruno Beral (Airbus)

Chair: N. Takeda

20min.

Discussion

L. J. Cohen (HITCO CARBONCOMPOSITES)

11:10

Multiple Core Sandwich Composites Optimization for Improving the Impact Behavior

F. Ferrero Laura (DIASP - Politecnico di Torino)

11:20

Conductive Properties of Unidirectionally Aligned Carbon Nanofiber/Epoxy Composite

T. Chiba (Shizuoka University)

Effect of Environmental Temperature on Tensile Strength for Notched Plate of a Short Glass Fiber Reinforced Polypropylene

T. Yamamoto (Fukuoka University)

See Left (Room 605)

11:30

BL-1 (Room 606) Active Structure Technology: Next Steps and Vision

Chair: T. Tanomoto

See Left (Room 606)

11:50

Coffee Break

13:00

SIT Poster Session-1

See Left (Room 606)

13:10

PS-P1: Thermoelectric Properties of FiSi2 using Rubi-Tanenbaum Cell

S. Igarashi (Shonan Institute of Technology)

13:20

PS-P2: Adhesion and Filtration Characteristics of Commercial Cylinders under Utilization

T. Nosaka (Shobun Institute of Technology)

13:30

PS-P4: Please Damping of Interlaminar CFRP/PMC-Carbon Composite Beams

T. Tanomoto (Shobun Institute of Technology)

13:40

PS-P5: Enhanced Fiber and Fiber Properties of CFRP laminates with Dispersed Carbon Nano-Pastes Surfaces Layered Scaffolds

T. Tanomoto (Shobun Institute of Technology)

13:50

PS-P6: View and Study of Bionanocomposites: Shino Exchange Flux

I. Inahashi (Shonan Institute of Technology)

14:00

PS-P7: Thermoelectricity of (Fe,Mn) Oxide Thin Films

S. Igarashi (Shonan Institute of Technology)

14:10

PS-P8: Enhancement of the Mobility of a Polymer-reducing Robot

U. Ueda (Shobun Institute of Technology)

14:20

PS-P9: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

14:30

PS-P10: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

14:40

PS-P11: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

14:50

PS-P12: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

15:00

PS-P13: Enhanced Formability of Metal Components

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PS-P14: Enhanced Formability of Metal Components

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PS-P15: Enhanced Formability of Metal Components

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PS-P18: Enhanced Formability of Metal Components

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16:00

PS-P19: Enhanced Formability of Metal Components

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PS-P20: Enhanced Formability of Metal Components

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PS-P21: Enhanced Formability of Metal Components

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PS-P30: Enhanced Formability of Metal Components

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PS-P31: Enhanced Formability of Metal Components

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PS-P32: Enhanced Formability of Metal Components

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PS-P33: Enhanced Formability of Metal Components

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PS-P41: Enhanced Formability of Metal Components

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PS-P42: Enhanced Formability of Metal Components

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PS-P43: Enhanced Formability of Metal Components

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PS-P45: Enhanced Formability of Metal Components

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PS-P46: Enhanced Formability of Metal Components

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PS-P47: Enhanced Formability of Metal Components

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PS-P48: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

21:00

PS-P49: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)

21:10

PS-P50: Enhanced Formability of Metal Components

K. Nakayama (Shobun Institute of Technology)
November 30, Friday

Room 605  Room 606
GREEN COMPOSITES-1  POLYMER MATRIX COMPOSITES-1  SMART MATERIALS-1  SHINE-3

Chair: K. Shirakawa and H. Nakamura

10:40  Development of C/C Composites for Ballistic Protection
S. Takahashi (Tokyo Metropolitan University)

10:50  Development of the Hydrogen Storage Materials for Fuel Cell Vehicles
A. Uemura (Tokai University)

11:00  Highly Reliable Advanced Grid Structure (HRAGS) Demonstrator for Aircraft Structures
H. Takeya (Mitsubishi Electric Corporation)

11:10  Research and Development of Ni-Base Fiber Reinforced Composites Fabricated by the Reaction at Narrow Holes Method
Y. Kashiwagi (Akita University)

11:20  Observations on Tensile and Compressive Behavior for Off-axis Fiber Composites
Yi Xiao (ACE TeC-JAXA)

11:30  Lunch Break

13:00 ATHERMOPLASTIC COMPOSITES, MATERIALS & PROCESSING TECHNOLOGIES
Norwood Buck, Vice President, Phoenix TPC

13:10  Overview of the Japanese Structure Health Monitoring System Project
Y. Kashioka (Research Institute for Metals and Composites for Future Industries)

13:20  Energy Saving Effect of Light-weight Electric Vehicles on Transportation Sector
Y. Kan (The University of Tokyo)

13:30  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

13:40  Coffee Break

14:40  AUTOMOBILE, MARINE, CIVIL-1  GREEN COMPOSITES-2  POLYMER MATRIX COMPOSITES-2  SMART MATERIALS-2  SHINE-4

Chair: M. Ogata and T. Nakamura

14:40  Microstructure and Mechanical Properties of Ni-Al Fiber Reinforced Composite Fabricated by the Reaction at Narrow Holes Method
Y. Kashiwagi (Akita University)

14:50  Material Properties of Ni-Al Fiber Reinforced Composite Fabricated by the Reaction at Narrow Holes Method
S. Kuma (Chuo University)

15:00  Highly Reliable Advanced Grid Structure (HRAGS) Demonstrator for Aircraft Structures
H. Takeya (Mitsubishi Electric Corporation)

15:10  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

15:20  Coffee Break

16:20  Final Talk

Chair: T. Leiva

16:20  Influence of the Pretreatment on the Mechanical Properties of the Recycled CFPR Vessel Under Internal Pressure
H. Hariya (The University of Tokyo)

16:30  Development and Property Evaluation of Maize Originated Green Composites
S. Takahashi (Tokyo Metropolitan University)

16:40  Development of a Novel C/C-Metal Composites Reinforced Electromagnetic Acoustic Transducer
M. Ishii (Tokyo University of Technology)

16:50  Chair: Y. Fujino (Hokkaido University)

17:00  Overview of the JSPS Research Project on Environmentally Benign Production of Carbon Fibers
K. Ogi (Ehime University)

17:10  Design, Manufacturing and Certification of a Composite Coating for Offshore Structures
E. Takenaka (Mitsubishi Heavy Industries)

17:20  Tensile Properties of Washi-paper Reinforced Polylactic Acid (PLA) as a Green Composites
I. Ohsawa (The University of Tokyo)

17:30  Suspended Neutron and Gamma Spectroscopy for Non-Destructive Testing, NDT
T. Yamaoka (Tokai University)

17:40  Chair: T. Ishikawa

17:50  Development of the Automotive Structure Member by New SMC
N. Kajioka (DaikyoNishikawa Corporation

18:00  Development of the Automotive Structure Member by New SMC
N. Kajioka (DaikyoNishikawa Corporation

18:10  Coffee Break

19:00  Room 607  Room 608  Room 609  Room 610  Room 614

GREEN COMPOSITES-3  POLYMER MATRIX COMPOSITES-3  SMART MATERIALS-3  SHINE-5

Chair: S. Inagaki and H. Nakamura

10:40  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

10:50  Energy Saving Effect of Light-weight Electric Vehicles on Transportation Sector
Y. Kan (The University of Tokyo)

11:00  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

11:10  Lunch Break

13:00  AUTOMOBILE, MARINE, CIVIL-2  GREEN COMPOSITES-4  POLYMER MATRIX COMPOSITES-4  SMART MATERIALS-4  SHINE-6

Chair: T. Ogata and H. Nakamura

13:10  Microstructure and Mechanical Properties of Ni-Al Fiber Reinforced Composite Fabricated by the Reaction at Narrow Holes Method
Y. Kashiwagi (Akita University)

13:20  Material Properties of Ni-Al Fiber Reinforced Composite Fabricated by the Reaction at Narrow Holes Method
S. Kuma (Chuo University)

13:30  Highly Reliable Advanced Grid Structure (HRAGS) Demonstrator for Aircraft Structures
H. Takeya (Mitsubishi Electric Corporation)

13:40  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

13:50  Coffee Break

15:20  Chair: Y. Yamasaki (Tokai University)

15:30  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)

15:40  Energy Saving Effect of Light-weight Electric Vehicles on Transportation Sector
Y. Kan (The University of Tokyo)

15:50  Development of the Structural Health Monitoring System for a New Generation of Military Airborne Biomechanics
M. Kotani (JAXA)
<table>
<thead>
<tr>
<th>Poster Session (November 28, 16:20-17:40)</th>
<th>Poster Session-1 (Room 607)</th>
<th>Poster Session-2 (Room 608)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:20-17:00 Short Oral Presentation by Poster Presenters</td>
<td>PS-P41: Application and Mechanical Properties of JUTE/PLA Composite Using Braiding Technique M. Sakata (Kyoto Institute of Technology)</td>
<td>PS-P41: Raman Spectroscopic Study of Phase Transformation Toughening in Poly-crystalline Zirconia K. Fukatsu (Kyoto Institute of Technology)</td>
</tr>
<tr>
<td>2 min. for each power point presentation (3 pages at maximum, no movie, without Q&amp;A)</td>
<td>PS-P42: Effect of Fabric Density on the Tensile Properties of Fully-green Composites Reinforced with Ramie Woven Fabrics R. Nakamura (Yamaguchi University)</td>
<td>PS-P42: Raman Spectroscopic Study of Stress Distribution in CaMoO4/Si Thin Film Materials Runtao Li (Kyoto Institute of Technology)</td>
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<td>PS-P43: Characteristic of Thermal Behavior of GFRP Laminates under Off-axis Tensile and Compression Loadings G. Ohgawa (Tokyo University of Science)</td>
<td>PS-P43: Characteristic of Thermal Behavior of CFRP Composites S. Satoh (Kyoto Institute of Technology)</td>
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<td>PS-P44: Improvement of the Mechanical Properties of Recycled CFRP T. Okazumi (The University of Tokyo)</td>
<td>PS-P44: Mechanical Properties and Microstructure of Plastic Materials for Bio-Composites T. Aoki (Kyoto Institute of Technology)</td>
</tr>
<tr>
<td>17:00-17:40 Poster Q&amp;A Period (Each presenter is required to stay in front of posters for discussion)</td>
<td>PS-P46: Design of Braided Composite Pipes K. Odani (Kyoto Institute of Technology)</td>
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<td>PS-P51: Improvement of the Mechanical Properties of Recycled CFRP T. Okazumi (The University of Tokyo)</td>
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<td>PS-P53: Combination of AE Technology and Displacement Measurement System to Monitor Composite Pressure Vessel H. Z. Hui (Harbin Institute of Technology)</td>
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<td>PS-P54: Proposal of Commuter Bus Using CFRP for Sustainable Transportation K. Satoh (The University of Tokyo)</td>
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