



2004 International Metallographic Contest Winners

Best In Show, Jacquet-Lucas Award

Electron Microscopy Technique for Imaging Ultra Fine Scaled Gamma' Precipitates in Nickel Based Super Alloys

Raymond R. Unocic, Peter M. Sarosi, and Michael J. Mills
Department of Materials Science and Engineering
The Ohio State University
Columbus, OH 43210

CLASS 1: Light Microscopy - Metals and Metal Alloys

1st Place

none awarded

2nd Place

Effect of Degree of Reduction in the Compressive Strength of Iron Foams

Alexander Verdooren
Lehigh University
Dept. of Materials Science and Engineering
5 E. Packer Avenue
Bethlehem, PA 18015

3rd Place

Remaining Creep Life Assessment of High Temp. Pressure Parts By Field Metallography

Dr. G. Venkataraman
Consultant to TBW
1103 Thiruvalluvar Avenue
No. 1 Toll Gate
TRICHY - 621 216 TN. INDIA

Honorable Mention

none awarded

CLASS 2: Light Microscopy - All Other Engineering Materials

1st Place

none awarded

2nd Place

Indentation-Induced "Particle Crowding" in a 2080 Al/SiC Metal Matrix Composite

Ramiro A. Pereyra

Mail Stop G721

Los Alamos National Laboratory

Los Alamos, NM 87545

and

Yu-Lin Shen

Department of Mechanical Engineering

University of New Mexico

Albuquerque, NM 87131

3rd Place

Development of High Rate Sputtering Target Suitable for Extended Si-Ceramic Coating

Yukio Inokuti

Steel Laboratory

JFE Steel Corp.

1 Kawasaki

Chuo, Chiba 260-0835

Japan

and

Seiji Oishi

Taigold Corp.

516 Yokota

Sanbu, Chiba 289-1226

Japan

and

Hirotarō Mori

Research Center for Ultra-High Voltage Electron Microscopy

Osaka University

Yamadaoka

Suita, Osaka 565-0871

Japan

Honorable Mention

none awarded

CLASS 3: Electron Microscopy - Transmission and Analytical

1st Place

Electron Microscopy Technique for Imaging Ultra Fine Scaled Gamma' Precipitates in Nickel Based Super Alloys

Raymond R. Unocic, Peter M. Sarosi, and Michael J. Mills
Department of Materials Science and Engineering
The Ohio State University
Columbus, OH 43210

2nd Place

Images of Silicon (Si) Wires of Nanometer Width

Tokushi Kizuka and Yasuhiro Takatani
Institute of Materials Science
Graduate School of Pure and Applied Science
University of Tsukuba
& PREST JST
Ten-noudai, Tsukuba 305-8573
Japan

3rd Place

none awarded

Honorable Mention

"Snow Flakes of Florida" - A study of Fluorine-doped Tin Oxide (FTO)

Debasis Bera, Swanand Patil, Kirk Scammon, Keith E. Rea and Sudipta Seal
University of Central Florida
4000 Central Florida Blvd. AMPAC/MMAE, Eng: 1, #381
Orlando, Florida- 32816

CLASS 4: Electron Microscopy - Scanning

1st Place

none awarded

2nd Place

none awarded

3rd Place

Observation of Microstructural Changes During Polymer Burnout Process

Ravi Kumar Enneti, Matthew Kelly and Randall M. German
Center for Innovative Sintered Products
The Pennsylvania State University
147 Research West Building
University Park, PA 16802

and
Sundar V. Atre
Industrial Engineering and Manufacturing
Oregon State University, Covell 106
Corvallis, Oregon 97331

3rd Place

Creep Damage of Boiler Components - In-Situ Metallography and Replication

Dr. G. Venkataraman
Consultant to TBW
1103 Thiruvalluvar Avenue
No. 1 Toll Gate
TRICHY - 621 216 TN. INDIA

Honorable Mention

none awarded

CLASS 5: Unique, Unusual, and New Techniques in Microscopy

1st Place

Optical Microscopy of High Relief Surfaces

Lynn A. Boatner, Hu Longmire, Dorothy Coffey and Allison Gray
Oak Ridge National Laboratory
1 Bethel Valley Road
Oak Ridge, TN 37831

2nd Place

GTAW Welds of Ti Alloys - A Novel Study of Microstructures

Dr. G. Venkataraman
Consultant to TBW
1103 Thiruvalluvar Avenue
No. 1 Toll Gate
TRICHY - 621 216 TN. INDIA

3rd Place

Atomistic Analysis of Preparation, Deformation, Fracture and Joining Single-walled Nanotubes

K. Asaka, F. Deng and T. Kizuka
Graduate School of Pure and Applied Sciences
University of Tsukuba
Tsukuba 305-8571
Japan

Honorable Mention

none awarded

CLASS 6: Color Microscopy

1st Place

Development of Patient-Friendly Medical Ceramic Coated Puncture Needle

Yukio Inokuti

Steel Laboratory

JFE Steel Corp.

1 Kawasaki

Chuo, Chiba 260-0835

Japan

and

Seiji Oishi

Taigold Corp.

516 Yokota

Sanbu, Chiba 289-1226

Japan

and

Hirotarō Mori

Research Center for Ultra-High Voltage Electron Microscopy

Osaka University

Yamadaoka

Suita, Osaka 565-0871

Japan

and

Hiroyuki Fukuda

Dept. of Medicine and Clinical Oncology

Graduate School of Medicine

Chiba University

1-8-1 Inohana

Chuo, Chiba 260-8670

Japan

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

Martensitic Structure on the Fracture Surface of a Co-NiGa Magnetic Shape Memory Alloy

Surasak Wannaparhun
Department of Materials Science and Engineering
University of Florida
117 Rhines Hall
P.O. Box 116400
Gainesville, FL 32611-6400

CLASS 7: Artistic Microscopy - Color Only

1st Place

none awarded

2nd Place

Birefringency in Fragmentation Tests of Sized Glass Fibers

Pedro Vasconcelos and Acacio Pereira
IPVC-Escola Superior de Tecnologia e Gestao
Dept. of Ciencias de Engenharia e Tecnologia, Av. do Atlantico
P.O. Box 574
4900-908 Viana do Castelo, Portugal

and

F. Jorge Lino and Rui Oliveira
Instituto de Engenharia Mecanica e Gestao Industrial, Rua do Barroco,174
4465-591 Leca do Balio, Portugal

2nd Place

"Hummingbird in Disguise" (Tool Steel M2)

Joe Henderson
ArvinMeritor, Inc.
Columbus Technical Center
950 W. 450 S, Bldg. 1
Columbus, IN 47201

2nd Place

Slag Inclusion in Wrought Iron

Caesar Lastimosa
Lehigh University
Dept. of Materials Science and Engineering
5 E. Packer Ave.
Bethlehem, PA 18015

3rd Place

none awarded

Honorable Mention

none awarded

CLASS 8: Artistic Microscopy - B&W Only

1st Place

"Frosted" - SEM Micrograph of Fluorinated Tin Oxide Fractals

Debasis Bera, Matthew McCutchen and Sudipta Seal

University of Central Florida

4000 Central Florida Blvd. AMPAC/ MMAE, Eng: 1, #381

Orlando, Florida 32816

2nd Place

Bismuth-Tin Eutectic

Aaron Shugar

Lehigh University

Dept. 8 Materials Science and Engineering

5 E. Packer Ave.

Bethlehem, PA 18015

3rd Place

Single Dendrite Tree in 383.0 Aluminum Alloy

Gopala Hebert

Departement de genie des mines, de la metallurgie et des materiaux

1728 Pavillon Adrien-Pouliot

Universite Laval

Quebec (Quebec) Canada

G1K 7P4

Honorable Mention

none awarded

CLASS 9: Undergraduate Student - Metals and Metal Alloys

1st Place and George L. Kehl Plaque

Wrought Iron Fractured Eye Bolt

Caesar Lastimosa

Lehigh University

Dept. of Materials Science and Engineering

5 E. Packer Ave.

Bethlehem, PA 18015

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

none awarded

CLASS 10: Undergraduate Student - All Other Engineering Materials

1st Place and George L. Kehl Plaque

Kinetics of Devitrification Within Sucrose-Water Glass

Isha Himani Jain
East Hills Middle School, Grade 8
2018 Chester Rd.
Bethlehem, PA 18017

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

none awarded

CLASS 11: Digital Microscopy

1st Place

"Alien Landscape"

Jeff Oakley
Rayovac Corporation
601 Rayovac Drive
Madison, WI 53711

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

none awarded

CLASS 12: DuBose-Crouse Award

no winner

2nd Place

Color Metallography of Copper and Alloys

George VanderVoort

Buehler Limited

41 Waukegan Road

Lake Bluff, IL 60044, USA