



2009 International Metallographic Contest Winners

Best in Show - Jacquet-Lucas Award

Anisotropy and Voiding at High Strain Rates in a Mg Alloy Extrudate

Brian Gerard
Lehigh University
1309 W Magnolia Avenue
Sea Girt, NJ 08750
USA

Class 1 Light Microscopy – Metal and Metal Alloys Only – sponsored by Struers, Inc.

1st Place

Anisotropy and Voiding at High Strain Rates in a Mg Alloy Extrudate

Brian Gerard
Lehigh University
1309 W Magnolia Avenue
Sea Girt, NJ 08750

2nd Place

No Award

3rd Place

Unique Sulfidation Reaction at 900C

Ik Kayafas, Joe Quinn
Product Evaluations Systems Inc
637 Donohoe Road
Latrobe, PA 15650
USA

and

Chris Holp, Jeff Blough
FENOC
Beta Lab
6670 Beta Drive
Mayfield Village, OH 44143
USA
and

Chris Bagnall
MCS Associates, Inc
637 Donohoe Road
Latrobe, PA 15650
USA

Honorable Mention

The Pb-Sn Phase Diagram

George F. Vander Voort
Buehler Ltd.
41 Waukegan Rd.
Lake Bluff, IL 60044
USA

Class 2 – All Other Materials – sponsored by Allied High Tech Products

No Awards

Class 3 Electron Microscopy – Transmission and Analytical

1st Place

Optimum STEM Imaging Condition for Dislocation Analysis

Patrick Phillips, Raymond Unocic, Michael Mills
The Ohio State University
Dept of Materials Science and Engineering
477 Watts Hall, 2041 College Road
Columbus OH 43210
USA

2nd Place

Imaging the Distribution of Alloy Elements in Ni-base Superalloy After Tensile Deformation

Zhiping Luo
Texas A&M University
Microscopy and Imaging Center
Biological Science Building West 119
College Station, TX 77843-2257
USA

3rd Place

3D Visualization of Dislocation Arrangements in Austenitic Stainless Steel with Dual-Axis STEM Tomography

M. Mitsuhashi, S. Hata, K. Ikeda, H. Nakashima
Kyushu University
Dept of Electrical and Materials Science

6-1, Kasuga-koen
Kasuga, Fukuoka 816-8580
Japan
and
M. Tanaka, K. Higashida
Kyushu University - Dept of Materials Science and Engineering
744, Motooka, Fukuoka 819-0395
Japan

Honorable Mention

Oxidation of Fe Nanoparticle during TEM Imaging, Is It due to Electron Beam Induced Heating or Anything Else?

C.M. Wang, D.R. Baer, J.E. Amonette
Pacific Northwest National Lab
Environmental Molecular Sciences Laboratory
3335 Q Ave, MSIN K8-87
Richland, WA 99352
USA

and
J.J. Antony, Y. Qiang
University of Idaho, Department of Physics
Moscow, Idaho 83844
USA

Class 4 Electron Microscopy Scanning

1st Place

In-Situ Observations of Snow Microstructural Evolution

Si Chen
Dartmouth College
Thayer School of Engineering
8000 Cummings Hall
Hanover, NH 03755
USA

and
Ian Baker
Dartmouth College
Thayer School of Engineering
8000 Cummings Hall
Hanover, NH 03755
USA

2nd Place

No Award

3rd Place

No Award

Honorable Mention

No Award

Class 5 Color Microscopy

1st Place

No Award

2nd Place

No Award

3rd Place

Examination of a Failed Poorly Carburized AISI P5 Tool Steel Die

George F. Vander Voort

Buehler Ltd.

41 Waukegan Rd.

Lake Bluff, IL 60044

USA

Honorable Mention

No Award

**Class 6 The Dubose-Crouse Award
for Unique, Unusual, and New Techniques in Microscopy – sponsored by Elsevier**

1st Place

Mapping Mass Transport in Stainless Steel Weld Pools Using Tracer and Secondary Electron Techniques

Lynn Boatner, Allison Gray

Oak Ridge National Lab

PO Box 2008, MS 6056

Oak Ridge, TN 37831-6058

USA

2nd Place

No Award

3rd Place

Lorentz Microscopic Observations of Electrical Steel Sheets in Alternating Magnetic Fields

Zentaro Akase, Hiroaki Kakinuma, Daisuke Shindo
Tohoku University
Institute of Multidisciplinary Research for Advanced Materials
2-1-1 Katahira Aobaku
Sendai Miyagi 980-8577
Japan
and
Masao Inoue
JEOL Ltd.
and
Akira Taniyama
Sumitomo Metal Industries
Corporate Research and Development Laboratories

Honorable Mention

Structural Ordering in Nanoparticles Produced from Non-Compound Forming Systems

Zhiping Luo
Texas A&M University
Microscopy and Imaging Center
Biological Science Building West 119
College Station, TX 77843-2257
USA

Class 7 Undergraduate Student Entries – Metal and Metal Alloys Only

1st Place

A Metallographic Investigation of a Bi-metallic Diesel Exhaust Valve

Thomas Nizolek, Jared LeBar, Abigail Lawrence
Lehigh University
5 East Packer Avenue
Bethlehem, PA 18015
USA

2nd Place

Metallographic Examination of Biomedical Screws

Kevin Winders, Andrew Thome, Ed Zalenski, Matthew Wojciechowski
Lehigh University
213 East 5th Street
Bethlehem, PA 18015
USA

3rd Place

Pry Bar Quality Testing

Jaret Frafjord (mentor)

Y-12 National Security Complex

Oak Ridge, TN

USA

and

Anshul Mehta

ASM Eisenman Materials Camp/High School Student

Ann Arbor, MI

and

Liz Pohana

ASM Eisenman Materials Camp/High School Student

Cincinnati, OH

and Kevin Raeke

ASM Eisenman Materials Camp/High School Student

Erie, PA

and Grant Hoffecker

ASM Eisenman Materials Camp/High School Student

Franklin, MI

Honorable Mention

(X45 Cobalt)

Kyle Feagin

Advanced Combustion Technology

8525 Freeland St

Houston, TX 77061

USA

Class 8 Undergraduate Student Entries – All Other Materials

No Awards

Class 9 Artistic Microscopy – Black and White Only – sponsored by Precision Surfaces International

1st Place

No Award

2nd Place

No Award

3rd Place

No Award

Honorable Mention

SEM Image: Plasma Sprayed Aluminum on a Ceramic Substrate

Amber Trees
SEMTEC Laboratories, Inc.
5025 S. 33rd Street
Phoenix, AZ 85040
USA

Honorable Mention

Fire Breathing Iron Dragon Circa 1863

Frederick E. Schmidt, Jr.
Engineering Systems Inc.
3851 Exchange Avenue
Aurora, IL 60504

Honorable Mention

Zebra

Mathilde Bonnehogne
CEA MAR DEN/DTEC/SGCS/LMAC
Site de Peirrelatte - Batiment 23 BP 17171
30207 Bagnols Sur Ceze Cedex
France

Honorable Mention

Origin of Life, Hatching Chicken From Egg or Egg From Hen?

Dr. Mrs. R. Nagalakshmi
Welding Research Institute
Bharat Heavy Electricals
Trichirappalli-620 014
Tamil Nadu
India

Class 10 Artistic Microscopy – Color Only

1st Place

Skull Island

Anthony Ventura
Lehigh University
3904 Blue River Court
Ellicott City, MD 21042

USA

2nd Place

B2 Bomber

Don Susan, Alice Kilgo
Sandia National Lab
P.O. Box 5800, MS 0886
Albuquerque, NM 87185
USA

3rd Place

Pink Valley

Mathilde Bonnehogne
CEA MAR DEN/DTEC/SGCS/LMAC
Site de Peirrelatte - Batiment 23 BP 17171
30207 Bagnols Sur Ceze Cedex
France

Honorable Mention

Invar Tsunami Strikes Richmond

George F. Vander Voort
Buehler Ltd.
Lake Bluff, IL 60044
USA

Class 11 Digital Microscopy Artistic

1st Place

Dendritic Iron Seascape

David M. Norfleet, Frederick E. Schmidt, Jr.
Engineering Systems Inc.
3851 Exchange Avenue
Aurora, IL 60504
USA

2nd Place

SEM Image: Plasma Sprayed Aluminum on a Ceramic Substrate

Amber Trees
SEMTEC Laboratories, Inc.
5025 S. 33rd Street
Phoenix, AZ 85040
USA

3rd Place

(butterfly)

George Abraham
Allied High Tech Products, Inc
2376 E. Pacifica Place
Rancho Dominguez, CA 90220
USA

Honorable Mention

No Award