2010 International Metallographic Contest Winners

Best in Show - Jacquet-Lucas Award

Identification of Secondary Phases in a Ti-Mo Alloy  
Christopher Roberts  
Carpenter Technology, Corp.  
Reading, PA  
and  
Hendrik Colijn  
The Ohio State University  
Campus Electron Optics Facility  
Columbus, OH

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

First Place

None awarded

Second Place

Graphite Formation on Surface of Low Carbon Steel Sheet After Annealing  
Dr. Yukio Inokuti  
Steel Research Laboratory OB  
JFE Steel Corp  
Japan

Honorable Mention

Revealing Phosphorus in Ferrite Matrix of Nodular Cast Iron  
Wiwik Purwadi, Dipl. Ing  
Politeknik Manufaktur Bandung  
Indonesia

Honorable Mention
Ti6Al4V Etched With Modified Weck's Reagent
Lukasz Boron
Foundry Research Institute
Krakow, Poland

Honorable Mention

Ni-Cr Alloy Etched With Aqua Regia
Lukasz Boron
Foundry Research Institute
Krakow, Poland

Class 2 - All Other Materials - sponsored by Allied High Tech Products
No entries

Class 3 Electron Microscopy - Transmission and Analytical

First Place
Identification of Secondary Phases in a Ti-Mo Alloy
Christopher Roberts
Carpenter Technology, Corp.
Reading, PA
and
Hendrik Colijn
The Ohio State University
Campus Electron Optics Facility
Columbus, OH

Second Place
Structure Refinement Using Electron Diffraction from Nanomaterials - an Extension of the Electron Diffraction Usage in Metallurgy
Dr. Zhiping Luo
Texas A&M University
Microscopy and Imaging Center
College Station, TX

Third Place
Direct Observation of Ordered Vacancies in Re4Si7 by Spherical Aberration Corrected STEM
Shunta Harada, Katsushi Tanaka, Norihiko L. Okamoto, Kyosuke Kishida, Haruyuki Inui
Kyoto University
Japan
Norikai Endo, Eiji Okunishi
JEOL Ltd.
Tokyo, Japan

Honorable Mention

Formation of MnSe or MnS Precipitates at Near-Surface of Grain Oriented Silicon Steel Sheets
Dr. Yukio Inokuti
JFE Steel Corp
Chiba, Japan

Class 4 Electron Microscopy Scanning

First Place

Scanning Electron Microscopy of Selectively Etched Nickel Super Alloys
Jeff Rodelas, Boian Alexandrox, and Peggy Kittila
The Ohio State University
Columbus, OH

Second Place

Curved Graphite Layer on Nickel Substrate
Shaahin Amini, Haamun Kalaantari, Reza Abbaschian
University of California, Riverside
Department of Mechanical Engineering
Riverside, CA

Third Place

None awarded

Honorable Mention

Variations in Contrast of SEM Images for GOI Thin Film Fabricated by RMG Method
K. Yokomizo, M. Itakura, M. Nishida, Dr. M. Itakura
Kyushu University
Kasuga, Japan
and
S. Tachibana
SII Nano Technology Inc.
Yokohama Demonstration Laboratory
Yokohama, Japan
Honorable Mention

Plasticity in Steel Micro-pillars
Siddhartha Pathak
EMPA
Thun, Switzerland

Class 5 Color Microscopy

No entries

Class 6 The Dubose-Crouse Award for Unique, Unusual, and New Techniques in Microscopy - sponsored by Metallurgical Supply Company

First Place

Ultraviolet Laser Assisted Atom Probe Analysis of Bulk Nano-composite Ceramic
Y.M Chen
University of Tsukuba
Japan
and
T. Ohkubo, K Morita, K. Hono
National Institute for Materials Science
Japan

Second Place

Unique Magnetic Domain Structure in Iron Meteorite Induced by the Presence of L10-FeNi
Masato Kotsugi PhD
Japan Synchrotron Radiation Research Institute
Sayo, Japan
and
Chiharu Mitsumata (Prof.)
Tohoku University
Japan

Third Place

Low-Angle Sectioning Technique for Analysis of Dissimilar Weld Interfaces
Jeffrey W. Sowards
NIST
Materials Reliability Division
Boulder, CO
and
Boian T. Alexandrov and John C. Lippold
Honorable Mention

A Statistical Method to Quantify the Microstructure Homogeneity - an Answer to the Simple Question Regarding the Homogeneity Degree
Dr. Zhiping Luo
Texas A&M University
College Station, TX

Class 7 Undergraduate Student Entries - Metal and Metal Alloys Only - sponsored by Precision Surfaces International

First Place
(there was a tie for first, so two were awarded)

Metallographic Examination of an Endoprosthetic Knee
Lehigh University
Bethlehem, PA

First Place
(there was a tie for first, so two were awarded)

Metallographic Analysis of a Trumpet Valve
Paul Sihelnik, Anthony Spizzirri, MariAnne Sullivan, Ukrit Thamma
Lehigh University
Bethlehem, PA

Second Place

None awarded

Third Place

Metallographic Investigation of Audio Connector
Austin Baker, Tiffany Chen, Chris Chew, Jacob Bumgardner
Lehigh University
Bethlehem, PA

Honorable Mention

Magnetic Field-Induced Alignment of Hexagonal Platelets in a Mg0.97Sb0.03 Alloy
Thomas Ott, Jason Cooley, Tim Tucker
Los Alamos National Laboratory
Los Alamos, NM

Class 8 Undergraduate Student Entries - All Other Materials

No Entries

Class 9 Artistic Microscopy - Black and White Only

First Place

**Flowers (SEM)**
NT Saenz, JE Coleman, Todd Schaef
PNNL
Richland, WA

Second Place

**Schwarzwald**
Mathilde Bonnehorgne
CEA Centre de Marcoule
France

Third Place

**2010 World Cup**
Mathilde Bonnehorgne
CEA Centre de Marcoule
France

Honorable Mention

**Apricot**
Mathilde Bonnehorgne
CEA Centre de Marcoule
France

Class 10 Artistic Microscopy - Color Only

First Place

**Duplex Steel Etched With LBI**
Lukasz Boron
Foundry Research Institute
Krakow, Poland
Second Place

**Brush Strokes**
Samuel J. Lawrence
Lehigh University
Bethlehem, PA

Third Place

**Micropillar Fabricated From a Dense Carbon Nanotube Brush**
William M. Mook
EMPA
Thun, Switzerland

Honorable Mention

**Wood Pile (SEM)**
JE Coleman, Todd Schaef
PNNL
Richland, WA

Class 11 Digital Microscopy Artistic

First Place

**Metallic Meteorite Fragment**
J. Corbett
IMR Metallurgical Services
Louisville, KY

Second Place

None awarded

Third Place

None awarded

Honorable Mention

None awarded