



2005 International Metallographic Contest Winners

Best In Show, Jacquet-Lucas Award

Tomographic Dark-Field TEM Observation of Ordered Precipitates in Ni-Mo Alloy

Kousuke Kimura, Satoshi Hata
Department of Applied Science for Electronics and Materials
Kyushu University, Fukuoka 816-8580, Japan

and

Syo Matsumura, Takao Horiuchi
Department of Applied Quantum Physics and Nuclear Engineering
Kyushu University Fukuoka 812-8581, Japan

CLASS 1: Light Microscopy - Metals and Metal Alloys

1st Place

Determining Ancient Processing Temperatures With Quantitative Image Analysis

Laura Limata
Lehigh University
73 Riverwalk Way
Cohoes, NY 12047

2nd Place

Interface Microstructure Development in Co-Extruded 1020 Plain Carbon Steel and 304 Stainless Steel

Mario Epler
Institute for Metal Forming, Lehigh University
5 East Packer Avenue
Bethlehem, PA 18015

3rd Place

Condition Assessment of Aged Power and Process Plants By Improved Field Metallography

Dr. G. Venkataraman
Consultant to TBW
1103 Tiruvalluvar Avenue
No. 1 Toll Gate
TRICHY - 621 216, India

Honorable Mention

**Solid-State Flow, Mechanical Alloying, and Melt-Related Phenomena
During Single Crystal Ballistic Rod Penetrating Steel Armor**

C.Pizaña, M. T. Baquera, E. Esquivel

The University of Texas at El Paso

Department of Metallurgical and Materials Engineering

Engineering Science Complex, Room M201

500 West University Ave.

El Paso, TX 79968-0520

CLASS 2: Light Microscopy - All Other Engineering Materials

1st Place

no entries

2nd Place

no entries

3rd Place

no entries

Honorable Mention

no entries

CLASS 3: Electron Microscopy - Transmission and Analytical

1st Place

none awarded

2nd Place

**Viewing Solid-State Properties of Metastable γ -TiH_x Nanoprecipitates in α -Ti by
EFTEM/EELS**

Vladimir P. Oleshko and James M. Howe

Department of Materials Science & Engineering

University of Virginia

116 Engineer's Way, Room 109

Charlottesville, VA 22904-4745

3rd Place

Hardfacing Delamination During Weld Repair: Microstructural Characterization of Stellite/Steel

Interface

M.G. Burke, T.G. Hicks
Bechtel Bettis, Inc.
PO Box 79
West Mifflin, PA 15122
and
M.W. Phaneuf
Fibics, Inc.
556 Booth St.
Ottawa, Ontario K1A0G1, CANADA

Honorable Mention

Novel Approach to SiC Nanoarchitecture

G.N. Yushin, Z.G. Cambaz, Y. Gogotsi
Drexel University, College of Engineering, Department of Materials Science
A.J. Drexel Nanotechnology Institute
3141 Chesnut St.
Philadelphia, PA 19104
and
V.G. Lutsenko, V.I. Vernadski
Institute of General and Organic Chemistry
Ukrainian National Academy of Sciences
Prospekt Palladina 32/34
03680 Kiev 142, Ukraine

CLASS 4: Electron Microscopy - Scanning

1st Place

none awarded

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

none awarded

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

1st Place

Tomographic Dark-Field TEM Observation of Ordered Precipitates in Ni-Mo Alloy

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Kyushu University
Fukuoka 816-8580, Japan

and
Syo Matsumura, Takao Horiuchi
Department of Applied Quantum Physics and Nuclear Engineering
Kyushu University
Fukuoka 812-8581, Japan

2nd Place

Reversible Spindle Polisher for Efficient Field Metallography

Dr. G. Venkataraman
Consultant to TBW
1103 Tiruvalluvar Avenue
No. 1 Toll Gate
TRICHY - 621 216 India

3rd Place

New Metallographic Preparation Technique for Viewing Titanium and its Alloys Using Polarized Lighting

Paul Danielson
Albany Research Center
1450 Queen Avenue, SW
Albany, OR 97321

Honorable Mention

Structure of Silicon Nitride Ceramic Thin Film Using High Rate, High Quality and Extended Life Ferro-Si+Cr+Al Sputtering Target

Yukio Inokuti
Steel Research Laboratory
JFE Steel Corp.
1 Kawasaki, Chuo, Chiba
260-0835, Japan

and
Masaharu Oishi
Taigold Corp.
516 Yokota Sanbu, Chiba
289-1226, Japan

and
Hirotaro Mori
Research Center for Ultra-High Voltage Electron Microscopy
Osaka University
Yamadaoka, Suita, Osaka

565-0871. Japan

CLASS 6: Color Microscopy

1st Place

none awarded

2nd Place

none awarded

3rd Place

Color Tint Etching of Multiphase Steels

A. K. De, J. G. Speer, D. K. Matlock

ASPPRC

Department of Metallurgical and Materials Engineering

Colorado School of Mines

Golden, CO 80401

Honorable Mention

none awarded

CLASS 7: Artistic Microscopy - Color Only

1st Place

Uranium Carbide

Ramiro A. Pereyra

Los Alamos National Laboratory

PO Box 1663

Los Alamos, NM 87545

2nd Place

Church Window

Dan Raiser

Lehigh University

5 East Packer Avenue

Bethlehem, PA 18015

3rd Place

Cocoon

Mirza Bulic

ACCELLENT

PO Box 26992
Collegeville, PA 19426

Honorable Mention

Cast Austenitic Manganese Steel

M. O'Brien
CCi Pope Pty Ltd.
Box 96, Hunter Region Mail Centre
New South Wales, 2310, Australia

CLASS 8: Artistic Microscopy - B&W Only

1st Place

Nano-Reef

Jose Hector Sandoval
The University of Texas at El Paso
c/o Metallurgy Dept.
500 W. University Ave.
El Paso, TX 79968

2nd Place

Tungsten Cathedral

Micah T. Baquera
The University of Texas at El Paso
Department of Metallurgical and Materials Engineering
Engineering Science Complex, Room M201
500 West University Ave.
El Paso, TX 79968-0520

3rd Place

Shell on Sand

Carlos Pizaña
The University of Texas at El Paso
Department of Metallurgical and Materials Engineering
Engineering Science Complex, Room M201
500 West University Ave.
El Paso, TX 79968-0520

Honorable Mention

Christmas Tree

Dr. G. Venkataraman
Consultant to TBW
1103 Tiruvalluvar Avenue

No. 1 Toll Gate
TRICHY - 621 216 India

CLASS 9: Undergraduate Student - Metals and Metal Alloys

1st Place and George L. Kehl Plaque

Metallographic Analysis of Spherical Geological Phenomena: Ironstone Concretions

James Neilson
Materials Science & Engineering Dept.
Lehigh University
5 East Packer Avenue
Bethlehem, PA 18015

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

Microstructural Evolution of Tin

Karel Filmalter, Debasis Bera, Sudipta Sea
University of Central Florida
4000 Central Florida Blvd.
AMPAC/MMAE, Eng: 1, #381
Orlando, FL, 32816

CLASS 10: Undergraduate Student - All Other Engineering Materials

1st Place and George L. Kehl Plaque

Densification of Yb/Er-doped Y_2O_3 Ceramics

Mike Martin
Materials Science & Engineering Dept.
Lehigh University
5 East Packer Avenue
Bethlehem, PA 18015

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

none awarded

CLASS 11: Digital Microscopy

1st Place

Electron Shadow

Carlos Pizana

The University of Texas at El Paso
Department of Metallurgical and Materials Engineering
Engineering Science Complex, Room M201
500 West University Ave.
El Paso, TX 79968-0520

2nd Place

none awarded

3rd Place

none awarded

Honorable Mention

Zr effect in Ti-1100 Alloy

Mesut Varlioglu, Philip Nash

Thermal Processing Technology Center

Illinois Institute of Technology

10 W 32d Street

Chicago, IL 60616

and

Geping Li, Feng Xu

Institute of Metal Research

Chinese Academy of Sciences

72 Wenhua Road

Shenyang 110016 China

CLASS 12: DuBose-Crouse Award

no winner