

**Advertising Deadlines
for Upcoming
MRS Bulletin Themes**

APRIL

Theme: Silicon-Based Optoelectronics
Guest Editor: Salvatore Coffa,
CNR-IMETEM
Advertising Closing: March 2, 1998

MAY

Theme: Technical Articles/Special
Features
Bonus Distribution: TMS ICGG-3
E-MRS Annual Meeting,
Strasbourg, France
Advertising Closing: April 1, 1998

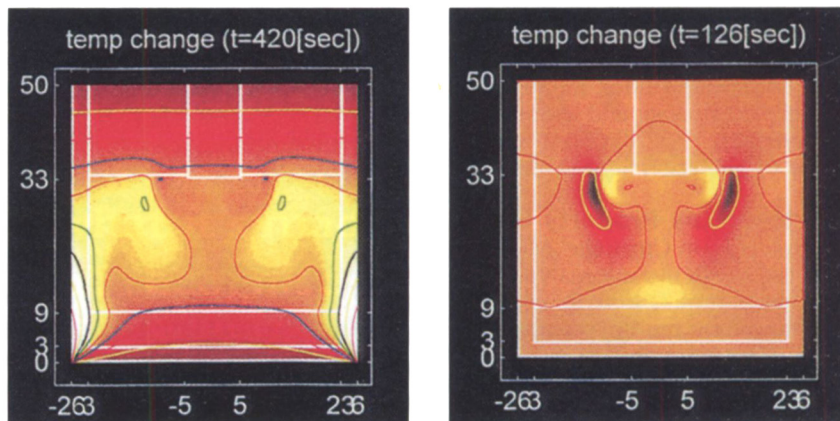
JUNE

Theme: Fundamentals of Friction
Guest Editor: Jacqueline Krim,
Northeastern University
Advertising Closing: May 1, 1998

JULY

Theme: Emergence of Ternary
Chalcopyrites as Nonlinear
Optical Materials
Guest Editors: Ravi Pandey, Michigan
Tech University and Melvin C. Ohmer,
AFOSR-Wright Laboratory
Advertising Closing: June 1, 1998

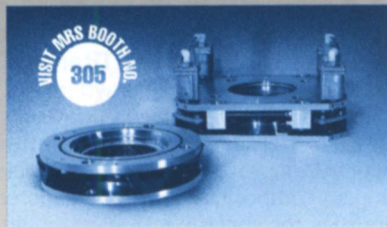
Figures appearing in EDITOR'S CHOICE are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated to the original meaning. Submissions of candidate figures are welcome and should include a complete source citation, a photocopy of the report in which it appears (or will appear), and a reproduction-quality original drawing or photograph of the figure in question.



"I think, therefore I am" may rationalize our own existence, but there is another equally egotistic imperative afoot. "If it has eyes, it's like us." From the movie *ET* to the television hit *X-Files*, and from many less prominent efforts in between, we see that anytime two eye-like holes appear, the rest of an alien being quickly follows with all the bipedal physique and pet-like personality attendant thereto. Scientific data is not immune to such anthropocentric interpretations, as this month's EDITOR'S CHOICE demonstrates. We have violated just about every EDITOR'S CHOICE criterion to bring this to you. These figures have not been published (yet) by their creator, Masahiro Egami (ISTEC), nor has a description of their technical basis been published in an archival journal.* Nevertheless, we do know that the cage-like frame restraining our little visitors is actually a schematic representation of a crucible containing a melt from which a crystal boule is being pulled. The outline and shadings of the creatures themselves actually reflect difference isotherms from which can be inferred the crystal-melt interface temperature under different conditions of heat input to the crucible, of crystal rotation rate, and of relative crucible size. The computation underlying this simulation, which was found to fit well with experimental observations, must account for a complex combination of convective and radiative transport processes in the superconductor precursor melt. A number of numbers including those of Prandle, Schmidt, Reynolds, Grashof, and Marangoni are invoked. Perhaps we should not be surprised that it takes great technical prowess and historical groundwork to attract alien visitors.

*These and other similar computer-generated illustrations were presented in a poster paper (PO-33) by M. Egami, Y. Namikawa, and Y. Shiohara (see also related presentation S1-6) at the International Workshop on Superconductivity Cosponsored by ISTEC and MRS, June 18-21, 1995, Maui, Hawaii, USA, with an accompanying extended abstract appearing in the collected abstracts distributed to participants. Photocopies may be requested through *MRS Bulletin*.

**Vacuum Pump
Vibration Isolators**

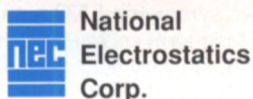


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**For a report on the Status of the
Journal of Materials Research,
see page 78.**