

MRS BULLETIN

April 1997

A Publication of the Materials Research Society

Volume 22, Number 4 ISSN: 0883-7694 CODEN: MRSBEA

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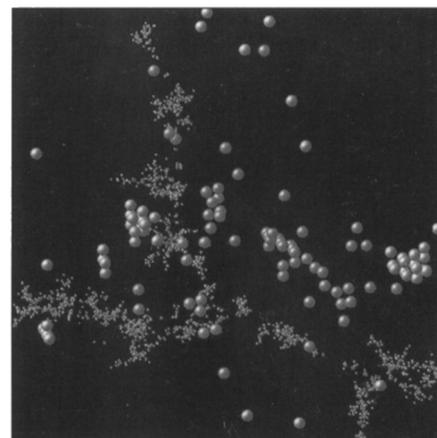
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ON THE COVER: Computer simulations of two displacement cascades in copper. The green spheres represent vacant sites while the pink spheres portray displaced atoms in interstitial sites. In the background (small spheres) is a cascade resulting from a 200-keV knock-on atom initiated at the lower right edge of the picture. This image shows the multiple-subcascade damage configuration typical of high-energy cascades less than one picosecond after initiation when atoms have been displaced but local temperatures are still very high and little recombination has occurred. In the foreground at magnification about 10 times greater is a 25-keV cascade consisting of a single damage region 12 ps after initiation, which is sufficient time for cooling to ambient temperature and formation of stable vacancy and interstitial clusters. The 200-keV cascade was generated by H.L. Heinisch, Pacific Northwest National Laboratory, using a binary-collision approximation code. The 25-keV cascade was generated by T. Diaz de la Rubia and M.W. Guinan, Lawrence Livermore National Laboratory, using molecular dynamics. For more information on this subject, see the section that begins on page 11.

Special Announcement: See important 1997 MRS Fall Meeting abstract deadline information on page 53.

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MRS Bulletin (ISSN: 0883-7694) is published 12 times a year by the Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237. Application to mail at periodicals rates has been approved at Pittsburgh, PA and at additional mailing offices. POSTMASTER: Send address changes to *MRS Bulletin* in care of the Materials Research Society, at the address listed; phone (412) 367-3003; fax (412) 367-4373. Printed in the U.S.A.

Additional copies of articles in *MRS Bulletin* may be made at \$2.50 per article. This fee can be paid to the Materials Research Society through the Copyright Clearance Center, Inc., 27 Congress Street, Salem, MA 01970.

Membership in MRS is \$75 annually for regular members, \$25 for students. Dues include an allocation of \$29 (\$17 for students) to a subscription to *MRS Bulletin*. Individual member subscriptions are for personal use only. Non-member subscription rates are \$135 for one calendar year (12 issues) within the U.S.A. and \$185 elsewhere. Single copies may be purchased for \$16 each. Send subscription orders to Subscription Department, Materials Research Society, 9800 McKnight Road, Pittsburgh, PA 15237.

MRS Bulletin is included in *Current Contents®/Engineering, Computing, and Technology*; *Current Contents®/Physical, Chemical, and Earth Sciences*, the *SciSearch®* online database, *Research Alert®*, *Science Citation Index®*, and the *Materials Science Citation Index®*. Back volumes of *MRS Bulletin* are available in 16 mm microfilm, 35 mm microfilm, or 105 mm microfiche through University Microfilms Inc., 300 North Zeeb Road, Ann Arbor, Michigan 48106.

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