

# Journal of Materials Research Premier Issue Nears Completion

Principal Editors Meet in Boston, Contributed Papers Flood Editorial Office

Editor-in-Chief Charles B. Duke reports that two recent editorial meetings have resulted in an impressive roster of articles for the premier issue of *Journal of Materials Research*. The issue, which will go to press shortly, consists of 32 papers:

"Carbon Effects in Rapidly Solidified Ni<sub>3</sub>Al," by S.C. Huang, C.L. Briant, K.-M. Chang, A.I. Taub and E.L. Hall.

"Ceramic to Metal Welding by Pressurized Combustion Reaction," by Yoshinari Miyamoto, Takashi Nakamoto, Mitsuo Koizumi and Osamu Yamada.

"Chemical Preparation and Properties of High-Field Zinc Oxide Varistors," by R.G. Dosch, B.A. Tuttle and R.A. Brooks.

"Chemical Process to Normalize the Electrical Properties of a-Se," by S.S. Badesha, M.A. Abkowitz and F.E. Knier.

"Creep Behavior of a Polycrystalline Nickel-Aluminide: Ni-23.5 at. % Al-0.5 at. % Hf-0.2 at. % B," by J.H. Schneibel, G.F. Petersen and C.T. Liu.

"Dynamic Cleavage in Ductile Materials," by I.-H. Lin and R.M. Thomson.

"Dynamic Strain Aging and Serrated Flow in MnO," by K.C. Goretta, J.L. Routbort and T.A. Bloom.

"Elastic Strain Energy and Forces on Point Defects in a Two-Phase Medium," by K. Jagannadham and J. Narayan.

"Electrical and Optical Transport in Undoped and Indium Doped Zinc Oxide Films," by S. Major, A. Banerjee and K.L. Chopra.

"Electron Microscopy and Krypton Adsorption Characterization of High Purity MgO Powder," by M. Bretz, A.G. Shastri and M. Schwank.

"Formation of Lanxide™ Ceramic Composite Materials," by M.S. Newkirk, A.W. Urquhart, H.R. Zwicker and E. Breval.

"High Resolution Transmission Electron Microscopy on KHx-GICs," by L. Salamanca-Riba, N.C. Yeh, M.S. Dresselhaus, M. Endo and T. Enoki.

"Icosahedral Ordering in Quasi-Crystals and Metallic Glasses," by J.C. Phillips.

"Indexing of Icosahedral Quasi-Periodic Crystals," by John W. Cahn, Dan Shechtman and Denis Gratias.

"Influence of Toughness on Weibull Modulus of Ceramic Strength," by K. Kendall, N. McN. Alford, S.R. Tan and J.D. Birchall.



Elton Kaufmann (left), Charlie Duke, and Linda Kennedy discuss "Contents by Topic" at JMR Editorial Office in October.

"Ion Beam Processing of LiNbO<sub>3</sub>," by B.R. Appleton, G.M. Beardsley, G.C. Farlow, W.H. Christie and P.R. Ashley.

"Kinetics of Formation of Silicides," by F.M. D'Heurle and P. Gas.

"Knoop Hardness Anisotropy on (001) Faces of Germanium and Gallium Arsenide," by S.G. Roberts, P.D. Warren and P.B. Hirsch.

"Nanosecond Resolution Time-Resolved X-Ray Study of Silicon During Pulsed-Laser Irradiation," by B.C. Larson, J.Z. Tischler and D.M. Mills.

"Novel Metal Oxides Prepared by Ingenious Synthetic Routes," by C.N.R. Rao, J. Gopalakrishnan, K. Vidyasagar, A.K. Ganguli, R. Ramanan and L. Ganapathi.

"Nucleation and Growth in Surface-Melted Crystalline and Amorphous Fe<sub>40</sub>Ni<sub>40</sub>P<sub>14</sub>B<sub>6</sub> Alloys," by R.J. Wallace and E.N. Kaufmann.

"Observation of Various Grain Boundary Atomic Structures in Au by High Resolution Electron Microscopy," by William Krakow and D.A. Smith.

"On the Time Delay of the Photoplastic Effect," by J. Pellegrino and J.M. Gilligan.

"Optical Absorption of Rare-Earth Doped BeF<sub>2</sub> Glasses," by P.A. Tick.

"Oxidation of SiC Powder By High-Temperature High-Pressure H<sub>2</sub>O," by M. Yoshimura, J. Kase and S. Somiya.

"Phase Analysis of Sintered Yttria-Zirconia Ceramics by X-ray Diffraction," by A. Paterson and R. Stevens.

"Solid-Phase Epitaxial Regrowth of Fine-Grain Polycrystalline Silicon," by W. Sinke, F.W. Saris, J.C. Barbour and J.W. Mayer.

"Study of the Icosahedral Phase: Mg<sub>32</sub>(Al<sub>1</sub>Zn)<sub>49</sub>," by G.V.S. Sastry and P. Ramachandrarao.

"Temperature Dependence of Tracer Diffusion Coefficients in Polystyrene," by Peter F. Green and Edward J. Kramer.

"Thermodynamic Aspects of Amorphous Phase Formation," by N. Saunders and A.P. Miodownik.

"Transition Metal Ions in Silicate Melts. IV Cobalt in Sodium Silicate and Related Glasses," by C. Nelson and W.B. White.

"Twinning and Crystal Slip in Black Mono-

*Continued*

clinic  $ZnP_2$ ," by Michael E. Fleet and Joseph C. White.

### Topical Categorization Discussed in October

Duke met with MRS President Elton Kaufmann in Webster, New York in October to finalize plans for a unique feature of JMR, the "Contents by Topic." It will appear following the traditional table of contents in each issue and will serve as a scanning tool to assist readers interested in articles related to specific topics. Plans were also made for the inclusion of a "Materials Index" to appear in the final issue of each annual volume.

"These two indexes will greatly assist the materials scientist and librarians in using the journal," reported Kaufmann. "They have been tailored to the character of materials science, and we are enthusiastic about their value to the research community."

### Principal Editors Discuss Editorial Issues

Quality and consistency was the major point of discussion of the JMR Principal Editors who met Tuesday evening, December 3 in Boston to finalize aspects of the first issue. The discussion, led by Duke, covered review procedures and status of papers in review, design and production issues, and general aspects of editorial policy. Robert H. Marks and John T. Scott of American Institute of Physics reported that a number of papers were already in production for the first issue.

Duke emphasized how pleased he was with the response of the scientific com-



JMR Editor-in-Chief C.B. Duke (center) conducts editorial meeting in Boston to discuss status of premier issue of *Journal of Materials Research*. To the left is L.J. Kennedy, JMR editorial office supervisor; to the right, D.R. Campbell, 1986 Publications Committee chair.

munity to the purpose of the journal. He indicated that the Editorial Office had witnessed a flood of papers, which are under review for the first and future issues. "It is quite evident," he said, "that the materials community has found JMR to be an important forum for debut of materials developments."

"The dedication of the Principal Editors to their task, the involvement of the MRS Publications Committee and Executive Committee, and the response of the materials community as a whole will make *Journal of Materials Research* the premier journal in the field."

**MRS**

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