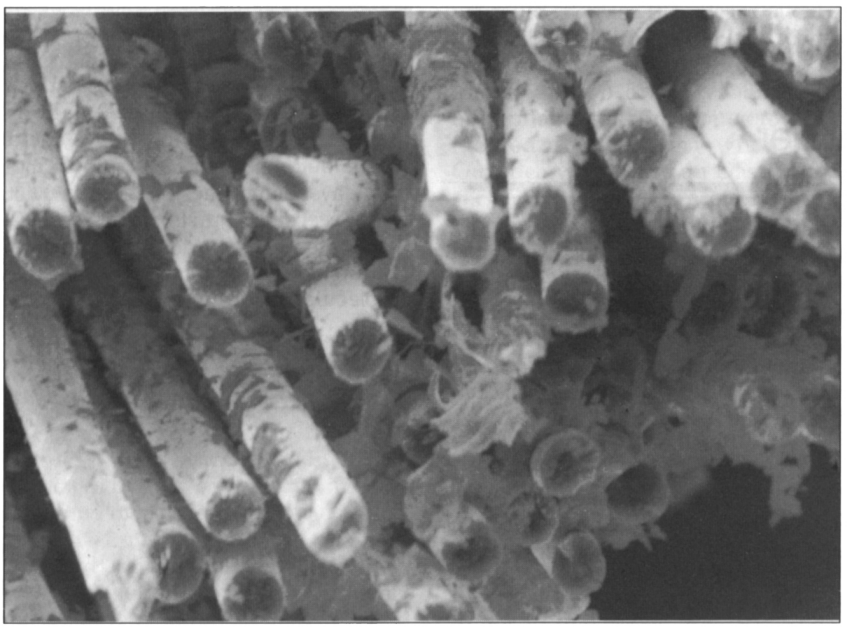
Figures appearing in EDITOR'S CHOICE *are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated 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.*



EDITOR'S CHOICE this month is concerned with neither wood nor tobacco. We logged many miles lumbering through the aisles of the library looking for an interesting figure that had some bearing on materials. Then while leafing through the white pages of the *Journal of Materials Research*, we found this micrograph (Vol. 9, No. 8, 1994, p. 2144) by C.T. Ho. Looking like stacked bark-stripped timer or ash from gang-smoked cigarettes in a nicotine test, the only thing it has in common with either is a high carbon content. This is, in fact, a micrograph of a tensile failure surface in a carbon-fiber reinforced metallic alloy. The alloy is essentially solder, otherwise known as white, bearing, or Babbitt metal composed of 60% tin and 40% lead by weight. This figure displays the appealing timber pile motif because the composite's failure mode involves predominantly fiber pull-out. These carbon fibers are pristine and apparently don't adhere very well to the matrix. Leading to less visually stimulating pictures but considerably more interesting physical properties are those composites that contain fibers surface-treated in alkali or acid, or fibers that have been brominated. The treated fibers show rougher surfaces of greatly increased specific surface area and bromination improves electrical conductivity. Details of the fiber treatment, the squeeze casting process, and the mechanical testing could not be squeezed in here, but can be found in the original reference. The moral of this bromide is, "The measure of one's metal lies not in how unsullied is one's fiber, but of how tenaciously it hangs in there after being roughly treated."

Upcoming Articles in *MRS Bulletin* September issue: Defects in Polymers

Guest Editors: David C. Martin and Christopher Viney

Defects in Polymer Crystals
by B. Wunderlich and S.N. Kreitmeier

Defects in Liquid-Crystalline Polymers
by M. Kléman

Morphology and Dynamic Interaction of Defects in Polymer Liquid Crystals
by M.J.E. O'Rourke and E.L. Thomas

Hairpin Defects in Liquid-Crystalline Polymers
by D.R.M. Williams and A. Halperin

Defect-Mediated Rheology of Block Copolymers
by S.D. Hudson, K.R. Amundson, H.G. Jeon, and S.D. Smith

Chain-End Defects in Extended-Chain Polymer Solids
by D.C. Martin, P.M. Wilson, J. Liao, and M.G. Jones

A Non-Periodic Lattice Model for Crystals in *Nephila clavipes* Major Ampullate Silk
by B.L. Thiel and C. Viney

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