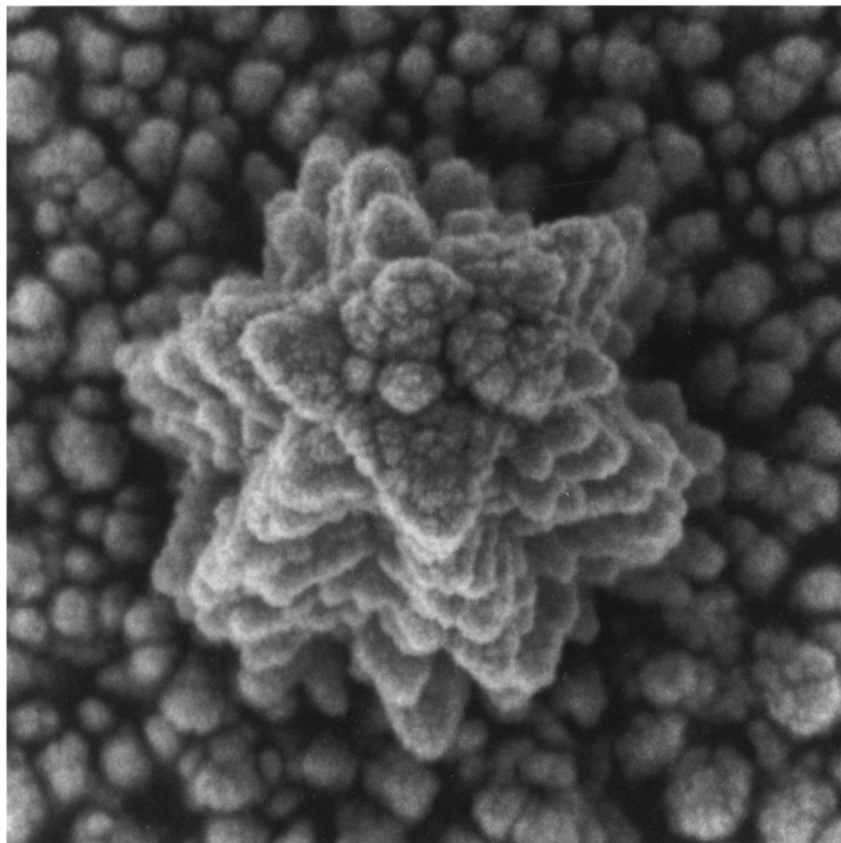


Figures appearing in *EDITOR'S CHOICE* are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated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



The crinkled appearance of this stack of stars leaves an organic impression. Of course, it could be a six-fold fungus of sorts. A more romantic interpretation would put it on a coral reef, an unnatural barnacle if you will. It could even be a well-balanced pile of successively smaller oatmeal cookies that inherit their self-similarity from a nested set of star-shaped cookie cutters. However, our favorite organic interpretation is the target's eye view of the ground-to-air launch of a pine tree from its forested silo below. Readers may suggest additional analyses and be assured that this structure does indeed result from growth, but, in fact, from the decidedly inorganic variety. This end-on view is a scanning electron microscope image of an aluminum nitride spire about 5 micrometers tall and 350 nanometers wide at the base. P.G. Kotula, M.G. Norton, and C.B. Carter suggest in *J. Mater. Sci. Lett.* **13** (1994) 1275–1277 that the starlike shapes may reflect dendritic growth. As attractive as it is, this *c*-axis oriented protrusion typifies unwanted defects on otherwise smooth *a*-axis oriented films grown on *R*-plane single-crystal sapphire substrates by pulsed-laser deposition. The laser target, while pummeled by tens of thousands of two Joule per square centimeter krypton-fluoride excimer laser pulses under 400 milliTorr of nitrogen gas, apparently spews some particles as well as vapor onto the 670°C substrate on which particles these outcroppings can nucleate. Yet, such growths are not seen under all conditions. The many parameters of the deposition process such as those already mentioned as well as target-to-substrate distance, ablation plume characteristics, and supersaturation of the vapor at the growth site must all conspire to coax the appearance of this appealing, albeit fickle, interloper. Come to think of it, fickleness is a rather highly developed organic trait.

Advertisers in This Issue

	Page No.
Academic Press, Inc.	69
Australian Scientific Instruments	4
Digital Instruments	19
EDAX	11
High Voltage Engineering	inside front cover
Huntington Laboratories	outside back cover
Janis Research Company, Inc.	68
MCNC Analytical Lab.	24
MDC Vacuum Products Corp	3
National Electrostatics	6
Neocera, Inc.	5
New Focus, Inc.	inside back cover
Virginia Semiconductor, Inc.	12
Voltaix, Inc.	8

For free information about the products and services offered in this issue, fill out and mail the Reader Service Card, or FAX it to (312) 922-3165.

**Upcoming in *MRS Bulletin*
July 1996**

THEME:

**Electroceramic Thin Films.
Part II: Device Applications**
Guest Editors: O. Auciello and
R. Ramesh

ARTICLES:

**Structure and Device
Characteristics of SrBi₂Ta₂O₉-
Based Nonvolatile Random
Access Memories**, J.F. Scott,
F.M. Ross, C.A. Paz de Araujo,
M.C. Scott, and M. Huffman

**Degradation Mechanisms in
Ferroelectric and High-
Permittivity Perovskites**,
W.L. Warren, D. Dimos,
and R.M. Waser

**Application of High Permittivity
Perovskite Thin Films to DRAM
Memories**, A.I. Kingon,
S.K. Streiffer, C. Basceri, and
S. Summerfelt

**Application of Electroceramic
Thin Films to Optical Waveguide
Devices**, D.K. Fork, F. Armani-
Leplingard, and J.J. Kingston

**Ferroelectric Thin Films in
Microelectromechanical Systems
Applications**, D.L. Polla and
L.F. Francis