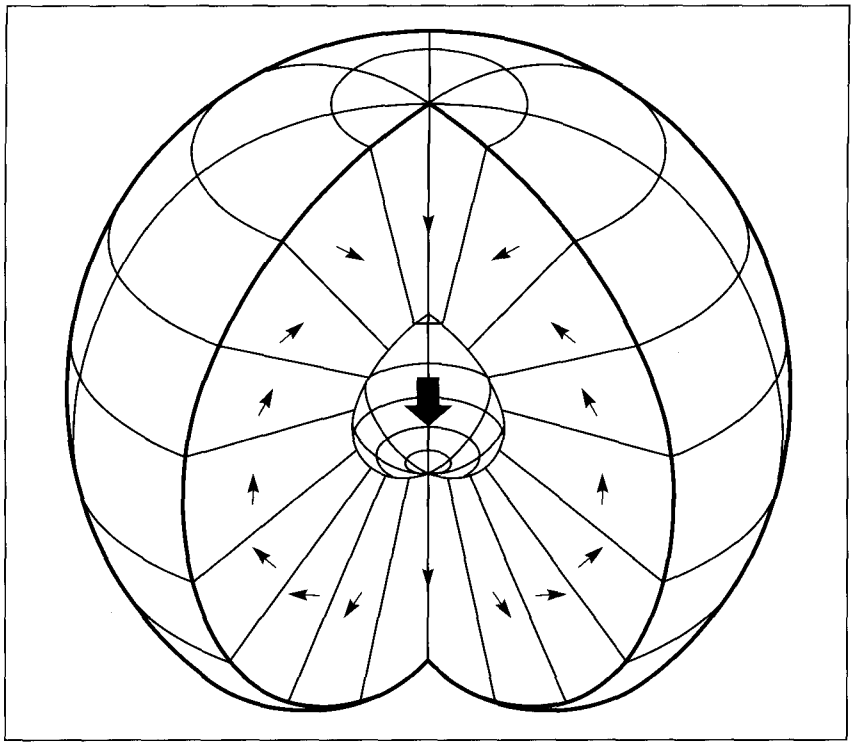
Figures appearing in EDITOR'S CHOICE *are those arising from materials research which strike the editor's fancy as being aesthetically appealing and eye-catching. No further criteria are applied and none should be assumed. When taken out of context, such figures often evoke images beyond and unrelated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



Take a simple sketch of a basketball, then abracadabra and voilá! Here appears a magic sphere. You know, "Magick is one of the subtlest and most difficult of the sciences and arts. There is more opportunity for errors of comprehension, judgement and practice than in any other branch of physics."[1] Take the magic numbers that close the shells of atoms and their nuclei. Take magic angle spinning of NMR. All hocus pocus until physicists used prestidigitation to pull laws of nature out of their hats. The magicians responsible for this month's EDITOR'S CHOICE are H.A. Leupold, E. Potenziani, J.P. Clarke, and D.J. Basarab who reported way back in 1987—in *High Performance Magnetic Materials*, edited by S.G. Sankar, J.F. Herbst, and N.C. Koon (Materials Research Society, Pittsburgh, 1987) p. 279—that with a little slight of hand, they could make the magnetic field in the hollow core of this ball highly uniform and greater, yes greater, than the remnant fields of the individual permanent magnet sectors comprising the assembly. Therein lies the magnetic magic. Of course, they did not actually start with a basketball. Casting that spell would have been too much even for a physicist. Instead, they computed the field at the core of a homogeneous sphere of magnetic material whose internal remnant magnetization is azimuthally symmetric and varies with polar angle θ as $2\theta + \pi/2$. Magic implies manipulating the course of nature by controlling supernatural forces through ritual and spell. And this they did, by showing that their design could actually be approximately realized simply by uniformly magnetizing a sphere of permanent magnet material, segmenting it, and swapping the segments around to get the arrows pointing as they do in the figure. Now that's magic. They did this work at an army laboratory where we suspect magnetic mumbo jumbo is discouraged. Whatever the incantations used, they also created magic rings, magic igloos, and a host of other enchanting designs.

1. Aleister Crowley, *The Confessions of Aleister Crowley* (Mandrake Press, London, 1929; rev. Hill & Wang, New York, 1970) chap. 20.

Readers take note:
THIS CONFERENCE IS FOR YOU

SVC Society of Vacuum Coaters

Who: The Society of Vacuum Coaters

What: 40th Anniversary Technical Conference

SVC is a professional society devoted to the exchange of technical information related to the manufacture and production of thin film products prepared by PVD processes.

Technical Sessions
April 14-17

- Plenary Session
- Vacuum Web Coating
- Decorative and Functional Coating
- Optical Coating
- Plasma Processing
- Process Control & Instrumentation
- Large Area Rigid Coating
- Emerging Technologies
- New Products from Vendors
- "Meet the Experts Corner"
- Networking Breakfast Session

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April 15-16

- Over140 exhibiting companies!

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April 12-17

- *Understanding Vacuum Systems*
- *Optical Coatings (3 courses)*
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- *Sputter Deposition*
- *Cryopumping Technology*
- *Basics of Vacuum Web Coating*
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- *Principles of Color Measurement*
- *Film Formation, Adhesion and some Basic Film Properties* NEW!
- *Cleaning and Contamination Control for PVD Systems*
- *Deposition and Properties of ITO Coatings*
- *Analytical Instrumentation and Analysis of Thin Films* NEW!
- *Non Conventional Plasma Sources* NEW!
- *A Primer on Thin Films & Vacuum Technology*

When: April 12-17, 1997

Where: New Orleans Marriott
New Orleans, LA

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