## **Cover Picture**

## James L. Hedrick, Teddie Magbitang, Eric F. Connor, Thierry Glauser, Willi Volksen, Craig J. Hawker, Victor Y. Lee, and Robert D. Miller

The cover picture shows an example of the evolution of nanoscience to nanotechnology. A defining characteristic of nanotechnology is the ability to control/manipulate length scales in the nanometer to millimeter range. The picture shows custom macromolecules of defined architecture and dimensions used to generate pores (>10 nm) in a material used to insulate micron size chip wiring. The many kilometers of wiring per chip, which connects the active devices, are shown in the center left photograph with the low dielectric constant material selectively removed. This progression of nanoscience to nanotechnology culminates with the generation of centimeter-sized IBM advanced CMOS logic chips, an example of which is shown in the top center of the picture, and is described in more detail by J. L. Hedrick et al. on p. 3308 ff.

