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Structure of a hypothetical protein with four helices (purple cylinders) modeled by the computer program Sculpt, a tool for guessing the structure of existing proteins or for designing new ones. In this special issue, other aspects of computing in science are discussed in News stories, Perspectives, and Articles beginning on page 841. [Sculpt was developed by Mark Surles, University of California San Diego Supercomputer Center; Jane and Dave Richardson, Duke University; and Fred Brooks, University of North Carolina, Chapel Hill]

**RESEARCH ARTICLE**

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Multiple Ion Association in Supercritical Aqueous Solutions of Single Electrolytes
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Protein Catalysis of the Retinal Subpicosecond Photoisomerization in the Primary Process of Bacteriorhodopsin Photosynthesis
L. Song, M. A. El-Sayed, and J. K. Lanyi

Micromachining a Miniaturized Capillary Electrophoresis-Based Chemical Analysis System on a Chip
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High-Density Nanosecond Charge Trapping in Thin Films of the Photoconductor ZnODEP
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Electron Diffraction and Imaging of Uncompressed Monolayers of Amphiphilic Molecules on Vitreous and Hexagonal Ice

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Influence of Productivity on the Stability of Real and Model Ecosystems
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Reconstitution of T Cell Receptor ζ-Mediated Calcium Mobilization in Nonlymphoid Cells
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