The tectonic effects of mantle plumes
Polarized light micrograph of asters (systems of microtubules emanating from centrosomes; these microtubules contribute to the mitotic spindle during cell division) in cytoplasmic lysates prepared from oocytes of the Atlantic surf clam, Spisula solidissima. A method of duplicating centrioles outside of the confines of the cell has now been developed. See page 219. [Photomicrograph by Robert E. Palazzo]

**RESEARCH ARTICLE**

Lambda Int Protein Bridges Between Higher Order Complexes at Two Distant Chromosomal Loci attL and attR
S. Kim and A. Landy

Chromosome Size-Dependent Control of Meiotic Recombination
D. B. Kabaek, V. Guacci, D. Barber, J. W. Mahon

**REPORTS**

Solar Control of the Upper Atmosphere of Triton
J. R. Lyons, Y. L. Yung, M. Allen

A New Type of Meteoritic Diamond in the Enstatite Chondrite Abee

Use of a Dihydrogen Osmium Complex as a Versatile 'H NMR Recognition Probe
Z.-W. Li and H. Taube

An SCF Solvation Model for the Hydrophobic Effect and Absolute Free Energies of Aqueous Solvation
C. J. Cramer and D. G. Truhlar

Context Dependence of Hydrogen Bond Free Energy Revealed by Substitutions in an RNA Hairpin
J. SantaLucia, Jr., R. Kierzek, D. H. Turner

Centriole Duplication in Lysates of Spisula solidissima Oocytes
R. E. Palazzo, E. Vaisberg, R. W. Cole, C. L. Rieder

Constructing Proteins by Dovetailing Unprotected Synthetic Peptides: Backbone-Engineered HIV Protease
M. Schnöller and S. B. H. Kent

Cloning and Characterization of Inducible Nitric Oxide Synthase from Mouse Macrophages

**TECHNICAL COMMENTS**

Thermal Equilibration During Cavitation

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