7 This Week in Science

Editorial
9 Retrieval of Scientific and Technical Data

Perspective
13 Molecular Defects in Insulin Action: C. R. KAHN and B. J. GOLDSTEIN

Letters

Policy Forum
16 The Third Generation of the Space Age: G. A. KEYWORTH II and BRUCE ABEll

News & Comment
20 Science Advisers Need Advice Ethics by the Book
23 NIH Grapples with Conflict of Interest
24 Representative Roe Rides to the Rescue
25 House Approves SSC Construction
Europe Says No to Animal Patents

Research News
26 Chaos Theory: How Big an Advance? Art Imitates Chaos Everywhere You Look, Everything Is Chaotic
29 Brown Dwarf Candidates Abound
30 Do Sperm Spread the AIDS Virus?
31 Random Samples: What Are You Worth? Counting Heads Cold Fusion Couture

Articles
32 Number of Siblings and Educational Attainment: J. BLAKE
37 Explosive Molecular Ionic Crystals: W. L. FAUST

Reports
43 Smectic Liquid Crystal Monolayers on Graphite Observed by Scanning Tunneling Microscopy: D. P. E. SMITH, H. HÖRBER, C. GERBER, G. BINNIG
45 Scaling Body Support in Mammals: Limb Posture and Muscle Mechanics: A. A. BIEWENER
48 Scale Invariance in Food Web Properties: G. SUGIHARA, K. SCHOENLY, A. TROMBLO
Molecules of 10-alklycyanobiphenyl condensed onto the surface of graphite are imaged with the scanning tunneling microscope (STM). The image is seen over an enlargement. The 56 by 56 Å² image has a height range of 1 Å, where red is highest and blue is lowest. The STM is sensitive to the different functional groups of the molecule; the biphenyl groups appear in the image as red ovals and the alkyl groups as green tails. See page 43. [Photograph by Douglas P. E. Smith; computer graphics by Michael Niksch and Lloyd LaComb, Jr., using a silicon Graphics Iris computer]

<table>
<thead>
<tr>
<th>Software Reviews</th>
<th>76</th>
<th>Computer Programs for Mineral Exploration: F. P. Agterberg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products &amp; Materials</td>
<td>86</td>
<td>Neurophysiological Magnetic Stimulator ■ Detector for Liquid Chromatography ■ Real-Time Color Image Analysis ■ Molecular Modeling Software ■ Automated Capillary Electrophoresis ■ Oligonucleotide Purification Cartridges ■ Interferometric Refractometer ■ Literature</td>
</tr>
</tbody>
</table>

7 JULY 1989

TABLE OF CONTENTS 5