Editorial

141 Volatile Contaminants of Drinking Water

Letters

144 Scientific Integrity: J. O. MASON and L. W. BIVENS; B. D. DAVIS ■ Clinical and Actuarial Judgment: B. KLEINMUNTZ; D. FAUST, P. E. MEEHL, R. M. DAWES

News & Comment

148 Rockefeller Braces for Baltimore
151 How the Soviets Got the H-Bomb
152 Super Collider Advocates Tangle with Cost Cutters
154 NIH Conflict-of-Interest Guidelines Shot Down ■ Some of the Voices from the Chorus of Protest

Research News

156 Briefings: Fleas Turn a Deaf Ear ■ CDC Head Named ■ Moss Landing Labs Destroyed by Quake ■ Stanford News Director Resigns ■ Incredible Lightness of Gyroscopes ■ Bridging the Student-Work Gap ■ Brain Decade ■ Russian Moon Non-Landing ■ Asians Up, Africans Down
158 Pushing the Envelope of Life ■ The Third Kingdom of Life
160 Fossils and British Pride
161 What You Find When Looking for a Soccer Ball
162 Hurricane-Drought Link Bodes Ill for U.S. Coast

Articles

166 Climate and Smoke: An Appraisal of Nuclear Winter: R. P. TURCO, O. B. TOON, T. P. ACKERMAN, J. B. POLLACK, C. SAGAN
177 Superconductivity and the Quantization of Energy: D. G. MCDONALD

Research Articles


Reports

189 Changes in Mean Concentration, Phase Shifts, and Dissipation in a Forced Oscillatory Reaction: J. G. LAZAR and J. ROSS
192 Mountains and Arid Climates of Middle Latitudes: S. MANABE and A. J. BROCCOLI

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 Experimental angular distribution of 65-electron volts Auger electrons emitted from an atomically clean platinum [111] single-crystal surface. Lighter colors represent larger signal. Contours (green) depict the theoretical distribution from a pair of adjacent atomic layers. These results reveal that Auger electron angular distributions consist of the "silhouettes" of near-surface atoms "backlit" by Auger emission originating from atoms located deeper in the sample. See page 182. [Data acquisition and graphics by D. G. Frank, N. Batina, and A. T. Hubbard; photography by R. Shaw, University of Cincinnati, Cincinnati, OH]