

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Unique Type of Angiosperm Pollen from the Family Annonaceae: <i>J. W. Walker</i>	565
Quadratic Elongation: A Quantitative Measure of Distortion in Coordination Polyhedra: <i>K. Robinson, G. V. Gibbs, P. H. Ribbe</i>	567
Maintenance of Resting Potential in Anoxic Guinea Pig Ventricular Muscle: Electrogenic Sodium Pumping: <i>T. F. McDonald and D. P. MacLeod</i>	570
Lesch-Nyhan Syndrome: Rapid Detection of Heterozygotes by Use of Hair Follicles: <i>S. M. Gartler et al.</i>	572
Deletions in Immunoglobulin Polypeptide Chains as Evidence for Breakage and Repair in DNA: <i>O. Smithies et al.</i>	574
Actinomycin D: Renewed RNA Synthesis after Removal from Mammalian Cells: <i>A. Schluederberg, R. C. Hendel, S. Chavanich</i>	577
Detoxication Enzymes in the Guts of Caterpillars: An Evolutionary Answer to Plant Defenses?: <i>R. I. Krieger, P. P. Feeny, C. F. Wilkinson</i>	579
Mycorrhizal Enhancement of Water Transport in Soybean: <i>G. R. Safir, J. S. Boyer, J. W. Gerdemann</i>	581
Cholinergic Sensitivity: Normal Variability as a Function of Stimulus Background: <i>L. Z. Bito, M. J. Dawson, L. Petrinovic</i>	583
Butterfly-Plant Coevolution: Has <i>Passiflora adenopoda</i> Won the Selectional Race with Heliconiine Butterflies?: <i>L. E. Gilbert</i>	585
Norepinephrine Pools in Rat Brain: Differences in Turnover Rates and Pathways of Metabolism: <i>J. J. Schildkraut, P. R. Draskoczy, P. S. Lo</i>	587
Activity of an NADPH-Dependent Nitroreductase in Houseflies: <i>E. P. Lichtenstein and T. W. Fuhremann</i>	589
Neural Regeneration: Delayed Formation of Central Contacts in Insect Sensory Cells: <i>J. S. Edwards and J. Palka</i>	591
<i>Culex (Melanoconion) aikenii</i> : Natural Vector in Panama of Endemic Venezuelan Encephalitis: <i>P. Galindo and M. A. Grayson</i>	594
Preavoidance Blood Pressure Elevations Accompanied by Heart Rate Decreases in the Dog: <i>D. E. Anderson and J. V. Brady</i>	595
Free Recall and Abstractness of Stimuli: <i>W. Bevan and J. A. Steger</i>	597
Differential Cerebral Processing of Noise and Verbal Stimuli: <i>R. Cohn</i>	599
Acetylcholine Liberation from Cerebral Cortex during Paradoxical (REM) Sleep: <i>H. J. Jasper and J. Tessier</i>	601

MEETINGS Engineering Foundation Conferences: <i>S. S. Cole</i>	603
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COVER

Green leaves manufacture many chemical products. The details of the control of carbon metabolism are not fully understood, but the results of experiments answer some questions about specific molecular mechanisms. Feedback is apparently involved in the control of certain steps in these processes. See page 526. [Gary Laurish Photography, Washington, D.C.]

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Changing Attitudes toward Environmental Problems

During 1970 public concern about pollution reached an emotional peak. Many people became convinced that the environment was deteriorating rapidly and that all of us were about to choke to death from pollution. Politicians of the two major parties scrambled to establish positions on the antipollution bandwagon. Federal legislative and administrative actions that were taken will eventually result in substantial improvement in our air and waters. Convinced that the public demands cleaner air and cleaner water, American industry will spend billions of dollars on antipollution measures.

An emotional peak, such as that witnessed in 1970, cannot be sustained. Earth Day activities this year were a pale shadow of those of a year ago. The mass media are beginning to diminish their coverage of environmental matters, and debunking stories are starting to appear. More important for the long haul is a growing recognition that environmental improvement is going to cost a lot of money and that the costs are going to be paid by everyone.

The emotional peak of 1970 was built in part on a solid base but it was also built in part on erroneous information and bad judgment. We must achieve and maintain a livable environment, but we are not about to choke to death from pollution, and the world is not going to run out of oxygen.

One of the odd features of the emotional peak was that it occurred at a time when most of the important components of pollution had leveled off or declined. For example, suspended particulate matter over some large cities had already decreased and carbon monoxide and sulfur dioxide content had diminished in others.

Contributing heavily to the timing and the shape of the emotional peak was the behavior of the mass media. Reporters selectively quoted people who gave them the scary kind of story that their editors would print, or that radio and TV would use. Public emotion quickly rose. However, after a time the public interest began to level off, and the mass media are now turning elsewhere. Typically, a period of inattention will be followed by another phase in which low-key, sober assessments will provide a more realistic picture to the public.

One of the misapprehensions of many people is that they can enjoy a perfect environment but that somebody else will pay for it. The cost of attaining even a moderately decent environment will be in the tens of billions of dollars and will be borne by everyone. Experience with abatement of sulfur dioxide pollution is illustrative. The added costs of low-sulfur fuels are in excess of a billion dollars a year. But the public will pay far more in the form of increased costs for electricity and other items.

We are entering a new phase in efforts to attain a better environment. In future, emotional appeals based on inaccurate information are not so likely to be effective. As it becomes apparent that the public must pay for improvements, new criteria will enter discussions concerning the environment. Benefits will be weighed against costs. Intellectual leadership in environmental matters will be shared by economists who are already beginning to hold useful symposia on these topics. Changes in political attitudes that are already occurring will continue as ghetto congressmen find their constituents feeling the costs of pollution abatement. The constituents are unaware of much improvement for their money. They have not been fully informed, and they are unable to detect small changes in sulfur dioxide. At the same time their eyes and their noses tell them that garbage collection has not improved.

—PHILIP H. ABELSON

The background for much of this discussion was a symposium organized by Resources for the Future and held in Washington, D.C., on 20 and 21 April.