Chemists Celebrate Earth Day. In celebration of Earth Day on April 22, 2010, the American Chemical Society’s theme is Plants: The Green Machines (http://acs.org/earthday). To facilitate your participation in this event, this issue contains a variety of articles on ways to bring environmental chemistry in to the classroom. The cover features a painting by Alyssa Olson that shows a microscopic cross-section of a leaf, describing the complex structure and dynamic processes of the photosynthesizing factory.
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pH-controlled Oxidation of an Aromatic Ketone: Structural Elucidation of the Products of Two Green Chemical Reactions.
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**Green Chemistry.**

A Green, Enantioselective Synthesis of Warfarin for the Undergraduate Organic Laboratory.
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**Green Chemistry.**

Ionic Liquids and Green Chemistry: A Lab Experiment.
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**Cost-Effective Teacher.**

Photoacoustic Experimental system To Confirm Infrared Absorption Due to Greenhouse Gases.
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RESEARCH: SCIENCE AND EDUCATION

Chemical Education Research.

Investigating the Impact of Adding an Environmental Focus to a Developmental Chemistry Course. 

Beth Robelia,* Kristopher McNeill, Krisrine Wammer, and Frances Lawrenz.

Racemization of Isobornyl Chloride via Carbocations: A Nonclassical Look at a Classic Mechanism. 

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JCE Featured Molecules

Molecular Models of Warfarin and Related Compounds. 

William F. Coleman.

Supporting Information is available via the Internet at http://pubs.acs.org

Articles of special interest to high school teachers.