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## Cover - Iowa Science Teachers Section Officers & Regional Directors - Front Matter - Table of Contents

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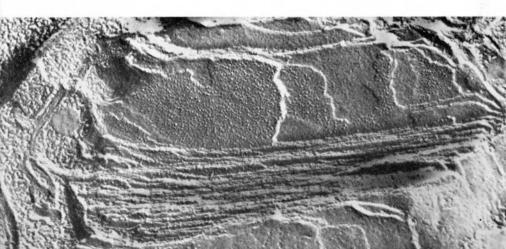
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# IOWA SCIENCE TEACHERS JOURNAL

VOLUME 11 NUMBER 3 1974



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#### THE IOWA SCIENCE TEACHERS JOURNAL

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This month's cover shows two views of an unusual chloroplast—a supergranal chloroplast from virus-infected plant cells. The upper micrograph is a normal electron microscope view of one of these chloroplasts magnified 39,000 times. The lower micrograph shows one of these chloroplasts following freeze-fracture preparation and is magnified 65,000 times. The freeze-fracture technique reveals the interior surfaces of the membranes within the chloroplast and the characteristic particles associated with these surfaces. (Photographs by Dr. Richard Sjolund and Dr. Donna D. Smith)