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# THE IOWA SCIENCE TEACHERS JOURNAL

*The Iowa Science Teachers Journal* is co-sponsored by the Iowa Academy of Science and the University of Northern Iowa. The journal is dedicated to the improvement of science teaching and to the stimulation of interest in scientific studies. The journal is published tri-annually.

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For subscriptions, circulation data, additional copies and change of address, write the Managing Editor, *ISTJ*, Iowa Academy of Science, P.O. Box 868, Cedar Falls, Iowa 50613. Single copies may be obtained for \$2.00.; a year's subscription is \$4.50. Any teacher of science in Iowa may obtain a subscription free of charge if a request is mailed to the Managing Editor; all such requests must be made on school stationery.

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For information concerning news items, announcements or articles, contact Carl W. Bollwinkel, Ph.D., Editor, *Iowa Science Teachers Journal*, Dept. of Teaching, Price Laboratory School, University of Northern Iowa, Cedar Falls, Iowa 50613.

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This symbol identifies articles of particular interest to elementary teachers of science.

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## IN MEMORIAM

### Dr. Robert W. Hanson

This issue of the *Iowa Science Teachers Journal* contains two articles submitted by Robert Hanson before his death in the spring of 1986. He is remembered with appreciation for the many articles he submitted to *ISTJ* and his many years of service to *ISTJ* as managing editor, to the Iowa Academy of Science as executive director, and to the students of the University of Northern Iowa as professor of chemistry and science education.

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## The Cover

The cover is an ink drawing, "Quartz Crystal-Autumn Leaves."

The art work was done by

### Ed Harris

Harris is Associate Professor of Teaching-Art at Price Laboratory School  
University of Northern Iowa.