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# Science Notes - Limiting Reactants

Erwin Richter
*University of Northern Iowa*

# SCIENCE NOTES

## Limiting Reactants

The concept of a limiting reactant in chemical reactions is one that may be difficult for students to learn. The concept is an important one as all chemical reactions have a limiting reactant.

The idea can be introduced using an example with which students are familiar. For example, a traditional couple is comprised of one man and one woman. This can be written as an equation: M + W = MW. MW represents a traditional couple. Write this sample equation on the blackboard: 8 men + 5 women = 5 couples (8M + 5W = 5MW + 3M). In this equation, women are the limiting reactant. Because there are only five women, the maximum number of couples which can be formed is five. In this example, men represent the excess reactant. Only five men are needed to form five couples so there are three extra men. Additional examples of this type may be used with the students until it becomes evident that they understand the concept of a limiting reactant.

If students are forced to reflect on the meaning of an answer to a stoichiometry problem they will gain more from the experience.

*Erwin Richter, Assoc. Prof. of Chemistry*
*University of Northern Iowa, Cedar Falls, IA 50614*

## Iowa Student Attends World Symposium

Rod Hauser from Marshalltown High School, Iowa's representative to the 1985 National Junior Science, Engineering and Humanities Symposium, was among seven students selected to represent the United States at the World Symposium in London, England, in July. The title of Hauser's paper was "Field Testing Germination of Prairie Grass in a Compacted Seed Bed." David Nagle and Robert Graves were his sponsoring teachers. Hauser's achievement continues an Iowa tradition, making seven Iowa finalists at the national level in the past twelve years.

— *K.L.C.*

## Halley's Comet Information Packet

A nontechnical information packet about the return of Halley's Comet in 1985 and 1986 is available from the nonprofit Astronomical Society of the Pacific. The 36-page pamphlet is designed to prepare the average person for finding, viewing and understanding the most famous of all comets as it takes its journey into the inner solar system. The packet includes helpful finding charts, detailed schedules, introductory articles about comet science and comet lore, a preview of the spacecraft missions meeting the comet, a thorough reading list and an introduction to astronomy as a hobby. A packet may be obtained by sending a donation of $4 with your name and address to: the Astronomical Society of the Pacific, Comet Packet Dept., 1290 24th Ave., San Francisco, CA 94122.

— *K.L.C.*