



UNIVERSITY OF MINNESOTA  
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## Department of Chemistry Kolthoff Lectureship in Chemistry

# February 21-24, 2011

## Professor Joseph Hupp

Northwestern University, Department of Chemistry

Faculty Host: Assistant Professor Aaron Massari

**Lecture 1:**  
*Materials Challenges for a Real Alternative Energy Scenario*

**3:45 p.m. Monday, February 21**  
**100 Smith Hall**

*A reception for Professor Hupp will be conducted in 117/119 Smith Hall immediately following this lecture. All are welcome to attend.*

**Lecture 2: Metal-Organic Framework Materials for Energy Applications**

**9:45 a.m. Tuesday, February 22**  
**331 Smith Hall**

**Lecture 3: Artificial Leaf Solar Cells**

**9:45 a.m. Thursday, February 24**  
**331 Smith Hall**

At Northwestern University's Department of Chemistry and Materials Research Center, Professor Joseph Hupp's research encompasses studying materials for alternative energy applications and other environmental issues. His research is highly interdisciplinary with students majoring in physical, organic, materials, and organic chemistry.



Hupp received his bachelor's degree in chemistry from Houghton College, and his doctorate in chemistry from Michigan State University. He was a chemistry research associate at the University of North Carolina. Throughout his academic career, Hupp has been as a professor in the Department of Chemistry at Northwestern University. He also serves as a Senior Science Fellow in the Chemical Sciences and Materials Science divisions at the Argonne National Lab, and is a faculty member for the International Institute for Nanotechnology at Northwestern.

**Izaak Maurits Kolthoff** was born on February 11, 1894, in Almelo, Holland. He died on March 4, 1993, in St. Paul, Minnesota. In 1911, he entered the University of Utrecht, Holland. He published his first paper on acid titrations in 1915. On the basis of his world-renowned reputation, he was invited to join the faculty of the University of Minnesota's Department of Chemistry in 1927. By the time of his retirement from the University in 1962, he had published approximately 800 papers. He continued to publish approximately 150 more papers until his health failed. His research, covering approximately a dozen areas of chemistry, was recognized by many medals and memberships in learned societies throughout the world, including the National Academy of Sciences and the Nichols Medal of the American Chemical Society. Best known to the general public is his work on synthetic rubber. During World War II, the government established a comprehensive research program at major industrial companies and several universities, including Minnesota. Kolthoff quickly assembled a large research group and made major contributions to the program. Many of Kolthoff's graduate students went on to successful careers in industry and academic life and, in turn, trained many more. In 1982, it was estimated that approximately 1,100 Ph.D. holders could trace their scientific roots to Kolthoff. When the American Chemical Society inaugurated an award for excellence in 1983, he was the first recipient.

