

Two-Day Workshops For Secondary Chemistry Teachers

Sponsored by:
The Penn Science Teacher Institute & Camille and Henry Dreyfus Foundation

Thermochemistry: Deeper Understanding for You and Your Students

Co-Developed and Co-Presented by:

**Dr. Tobias Baumgart, Penn Chemistry & Carol Rulli, Knowles Science Teaching
Foundation (formerly chemistry teacher at Triton HS, NJ)**

Friday and Saturday, July 10 & 11

This workshop will review important concepts from thermochemistry and amend them where necessary with thermodynamic background. A major component of the workshop will be thermochemistry experiments suitable for guided inquiry learning and inquiry based in-class discussion. The workshop is a continuation of a previously held workshop, however, no prior participation/knowledge is required.

Modeling Molecules: Historical Perspectives to State of the Art

Co-Developed and Co-Presented by:

**Dr. Jeff Saven, Penn Chemistry & Tom Loschiavo, Moorestown High School
(NJ) -- with graduate student Chris MacDermaid and Dr. Pat Carroll, Director
of Penn's X-Ray Crystallography Facility**

Friday and Saturday, July 17 & 18

The workshop will include experimental and computational techniques for better understanding molecules and molecular structures, from atoms to molecules to polymers and proteins. Concepts and methods relevant to research in chemistry, biochemistry, materials and nanotechnology will be presented. The use of x-ray crystallography in determining molecular structures will be demonstrated.

When: 9:00 am – 3:00 pm each day

Where: University of Pennsylvania, Chemistry Building
34th and Spruce Streets, Philadelphia PA 19104

Who Should Attend: Chemistry (Grades 9-12) Teachers

Parking: When you register you will be given directions/options. (Saturday there is a free lot!)

• **Registration Deadline:** July 1



nrvtech.com

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Send your completed registration form (below) along with a check for **\$50 (for each workshop)** made payable to "Trustees of the University of Pennsylvania" by **July 1**.

- You will receive email confirmation of your registration.
- Should you need to cancel, your money will be refunded *if we are notified of your cancellation at least 2 weeks prior to the workshop*.



Registration Form

July 10 & 11 – *Thermochemistry: Deeper Understanding for You and Your Students*

July 17 & 18 – *Modeling Molecules: Historical Perspectives to State of the Art*

Your Name: _____

School/School District: _____

Phone (School): _____

Phone (Home/Cell): _____

E-mail Address *(please write legibly!)* _____

Mailing Address: _____

Subject(s)/Grade(s) You Teach: _____

How long have you been teaching chemistry? _____

Return to:

Penn STI - Workshops
Department of Chemistry
231 S. 34th Street
Philadelphia, PA 19104-6323

