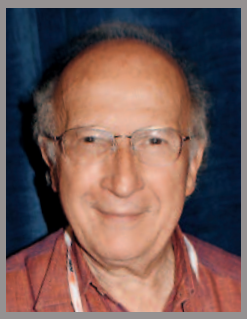

Roald Hoffmann

1981 NOBEL PRIZE IN CHEMISTRY
Cornell University, Ithaca, New York, USA

Chemistry's essential tensions: Three views

In this generously illustrated lecture several views of chemistry will be presented, stressing its psychological dimension and its tie to the arts: First of all, chemistry is, as it has always been, the art, craft, business of substances and, importantly, their essential transformations. It is now also the science of microscopic molecules, both simple and complex. And then there are people's perceptions of chemistry — alternating between seeing the healing and the hurting aspects of this truly anthropic science. The underlying psychological tensions will be explored, as will the strong element of creation or synthesis in chemistry, which brings chemistry close to the arts.

BIO

Roald Hoffmann was born in Zolochiv (Poland). Having survived the war, he moved to the United States in 1949. He studied chemistry at Columbia University and then at Harvard University where he received his PhD in 1962. Prof. Hoffman has been at Cornell University since 1965. "Applied theoretical chemistry" is the way Roald Hoffmann likes to characterize the particular blend of computations stimulated by e xperiment and the construction of generalized models, of frameworks for understanding, that is his contribution to chemistry. In more than 500 scientific articles and two books he has taught the chemical community new and productive ways to look at the geometry and reactivity of molecules, from organic through inorganic to infinitely extended structures. His work continues, now close to condensed matter physics. In 1981 he shared the Nobel Prize in Chemistry with Kenichi Fukui, for his theoretical work on the course of chemical reactions. As a writer, Hoffmann has carved out a land between science, poetry, and philosophy through many essays, four non-fiction books , five collections of poetry including the bilingual (Spanish-English) "Catalista", and three plays.