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Science & Engineering Indicators



National Science Board

Cover Image

The flower-like structure on the cover of *Science and Engineering Indicators 2014* is a graph that illustrates potential energy surfaces in a molecule called sym-triazine. The theoretical approach behind the graph is part of a larger effort that helped explain how sym-triazine can simultaneously break into three parts. Most molecules break apart one step at a time, so the phenomenon is rare. Researchers at the University of Southern California used computational chemistry tools to produce the graph, explaining the experimental results obtained by collaborators at the University of California, San Diego. The researchers reported their findings in the August 8, 2008, issue of the journal *Science*. This work was supported by the National Science Foundation under the auspices of the iOpenShell (Center for Computational Studies of Electronic Structure and Spectroscopy of Open-Shell and Electronically Excited Species). (Credit: Vadim Mozhayskiy and Anna I. Krylov, Department of Chemistry, University of Southern California.)

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February 6, 2014

MEMORANDUM FROM THE CHAIRMAN OF THE NATIONAL SCIENCE BOARD

TO: The President and Congress of the United States

SUBJECT: *Science and Engineering Indicators 2014*

As Chairman of the National Science Board, it is my honor to transmit on behalf of the Board the twenty-first in the series of biennial science indicators reports, *Science and Engineering Indicators 2014*. The Board submits this report as required by 42 U.S.C. § 1863 (j) (I).

The *Indicators* series was designed to provide a broad base of quantitative information about U.S. science, engineering, and technology for use by policymakers, researchers, and the general public. *Science and Engineering Indicators 2014* contains analyses of key aspects of the scope, quality, and vitality of the Nation's science and engineering enterprise in the context of global science and technology.

The report presents information on science, technology, engineering, and mathematics education at all levels; the scientific and engineering workforce; U.S. and international research and development performance; U.S. competitiveness in high technology; and public attitudes and understanding of science and engineering. A chapter on state-level science and engineering enables state comparisons on selected indicators. An Overview chapter synthesizes selected key themes emerging from the report.

The Board hopes that the Administration and Congress find the new quantitative information and analysis in the report useful and timely for the planning of national priorities, policies, and programs in science and technology.

Dan E. Arvizu
Chairman
National Science Board

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