

First International Conference on Chemical Education

Nov 12-14, 2010

Invited Speakers

Prof. Diane M Bunce

Chemistry Department,
The Catholic University of America
620, Michigan Avenue, NE Washington, DC 20064

Associate Editor *Chemical Education Research - Journal of Chemical Education* (2010).

Research Interests

Our current research has focused on two main areas, namely:

1. the dual use of technology to both study the effectiveness on student understanding of technological approaches to teaching and the use of technology as a research tool
2. explorations of the learning process itself and the factors that affect it.

Research on the effectiveness of technological approaches includes studies on student-use patterns of Student Response Systems (clickers) vs. online quizzes on student achievement and their subsequent effect on student achievement. Our research on the learning process itself has investigated what students do while trying to learn chemistry. An in-depth exploration of the small group interaction within Process Orientated Guided Inquiry (POGIL) classes revealed four levels of student interaction leading to understanding. This study was expanded to investigate the effect of teacher interactions with the groups.

Dr. Daniel S. Domin

Director of Academic Assessment, Evaluation, and Achievement
Dominican University
7900 West Division Street
River Forest, IL 60305, USA

Research Interests

Interested in how the instructional science laboratory affects student learning.

Research attempts to ascertain which aspects of science laboratory instruction are significant in affecting a myriad of student outcomes. This includes, developing conceptual understanding, students perceptions of the nature of science, utilizing scientific reasoning, problem solving.

Currently, he is investigating the capability of the general chemistry laboratory to alter students views on the nature of science.

Prof. Norman Reid

Emeritus Professor of Science Education,

University of Glasgow

Centre for Science Education, Kelvin Building,

University of Glasgow, Glasgow, SCOTLAND, UK

President, Education Division, Royal Society of Chemistry

Research Interests

Within Science and Mathematics Education, the approach has been to look for underlying fundamental reasons for observed learning. Major themes include:

- The underlying nature of student learning difficulties in mathematics and the sciences
- Making practical work an effective learning experience through pre- and post-laboratory work;
- Language in learning and teaching science;
- Developing student attitudes in relation to their studies
- Various novel assessment and evaluation approaches.

Prof. Pradeep Kumar

Division of Medicinal and Process Chemistry

Central Drug Research Institute

PO Box No. 173, Chattar Manzil

Lucknow 226001

Research Interests

Technology Development/ Process Chemistry

Scientoons are the cartoons, based on science. they not only make you smile and laugh but also provide information about new researches, subjects, data & concepts in a simple, understandable and interesting thought provoking way.

Prof. A.A. Natu

Indian Institute of Science Education and Research (IISER)

First floor, Central Tower, Sai Trinity Building

Garware Circle, Sutarwadi, Pashan

Pune, Maharashtra 411021, India

Research Interests:

Organic chemistry , Bio organic chemistry, Combinatorial chemistry and biology in drug discovery

Prof. H.C. Pradhan

Centre Director,

Homi Bhabha Centre for Science Education, TIFR,

Anushakti Nagar, Mumbai

Chair, National Steering Committee (for science and astronomy Olympiad)

Research interest:

Physics, mathematics and general science education with special interest in students' alternative conceptions in physics and mathematics, laboratory development in physics, students' knowledge organization in science and capacity building of undergraduate physics students. Involved with teacher development, networking with educational institutions, material development, science popularization, talent nurture including Olympiads and research.

Prof. N. Sathyamurthy

Director,

Indian Institute of Science Education and Research, Mohali

MGSIPA Complex, Sector 26, Chandigarh 160019

Research Interests

Theoretical (computational study of) electronic structure and molecular reaction dynamics.

[potential energy surface of (He, F₂); Time-dependent wave packet dynamics of (He, H²⁺), (He, HD⁺), (He⁺, H₂); hydrogen bonding in different systems; water clusters around small molecules.