
CONTENTS, VOLUME 2, 2001

Title and author	Issue	Pages
EDITORIALS		
Theories in science education at the threshold of the third millennium <i>G. Tsaparlis</i>	1	1-4
INVITED CONTRIBUTIONS		
Whither chemical education? A personal view <i>S.F.A. Kettle</i>	1	5-8
Alternative assessment as (critical) means of facilitating <i>HOCS</i> -promoting teaching and learning in chemistry education* <i>U. Zoller</i>	1	9-17
Invited Theme Issue		
STRUCTURAL CONCEPTS: CONTRIBUTIONS FROM SCIENCE, SCIENCE EDUCATION, HISTORY AND PHILOSOPHY OF SCIENCE		
PREFACE - Introduction to the Theme Issue: Molecules and atoms at the centre stage <i>G. Tsaparlis</i>	2	57-65
Modified Lewis theory: Polar covalent bonds and hypervalency. <i>P.W. Nelson</i>	2	67-72
Teaching the VSEPR model and electron densities <i>R.J. Gillespie & C.F. Matta</i>	2	73-90
Natural bond orbitals and extensions of localized bonding concepts <i>F. Weinhold & C.R. Landis</i>	2	91-104
Structure in inorganic chemistry <i>S.F.A. Kettle</i>	2	105-107
Teaching the structural nature of biological molecules: Molecular visualization in the classroom and in the hands of students <i>D.R. Canning & R. Cox</i>	2	109-122
Building the structural concepts of chemistry: Some considerations from educational research <i>K.S. Taber</i>	2	123-158

Do we have to introduce history and philosophy of science or is it already 'inside' chemistry? 2 159-164
M. Niaz & M. A. Rodríguez

The new philosophy of chemistry and its relevance to chemical education 2 165-170
E. Scerri

**Special Section on STRUCTURAL CONCEPTS
(A complement to the Theme Issue, Vol. 2, No. 2)**

INVITED CONTRIBUTION

Modified Lewis theory: Part 2, Coordinate and nonintegral bonds 3 179-182
P.W. Nelson

REVIEWED PAPERS

Helping students to make inferences about the atomic realm by delaying the presentation of atomic structure 3 183-202
R. Toomey, E. dePierro, & F. Garafalo

Towards a meaningful introduction to the Schrödinger equation through historical and heuristic approaches 3 203-213
G. Tsaparlis

REVIEW OF RESEARCH

Alternative assessment as (critical) means of facilitating *HOCS*-promoting teaching and learning in chemistry education* 1 9-17
U. Zoller

Building the structural concepts of chemistry: Some considerations from educational research 2 123-158
K.S. Taber

Using theories of learning to inform tertiary chemistry pedagogy 3 215-226
R.K. Coll & T.G.N. Taylor

RESEARCH REPORTS

A language problem revisited 1 19-29
A.H. Johnstone & D. Selepeng

Water and air pollution: Primary students' conceptions about "itineraries" and interactions of substances** 1 31-42
H. Stavridou & D. Marinopoulos

Structural chemistry and spatial ability in different cultures 3 227-239
H.-D. Barke & E. Temechegn

Physical-science knowledge and patterns of achievement at the primary-secondary interface: Part 1. General student population 3 241-252
C. Kampourakis, K. Georgousi, & G. Tsaparlis

Physical-science knowledge and patterns of achievement at the primary-secondary interface: Part 2. Able and top-achieving students <i>K. Georgousi, C. Kampourakis, & G. Tsaparlis</i>	3	253-263
Spanish prospective teachers' initial ideas about teaching chemical change <i>R. Martín Del Pozo & R. Porlán Ariza</i>	3	265-283
The predicting role of cognitive variables in problem solving in mole concept <i>K-W. L. Lee, W.-U. Tang, N.-K. Goh, & L.-S. Chia</i>	3	285-301
THE PRACTICE OF CHEMISTRY EDUCATION: PAPERS		
Constructing chemical concepts in the classroom?: Using research to inform practice* <i>K.S. Taber</i>	1	43-51
Changes of extent of reaction in open chemical equilibria <i>J. Solaz & J. Quilez</i>	3	303-312
Fixed-response questions with a difference <i>A.H. Johnstone & A. Ambusaidi</i>	3	313-327
THE PRACTICE OF CHEMISTRY EDUCATION: NOTES		
Simple demonstrations of the energy exchange between system and its surroundings <i>D. Šišović & N. Šišović</i>	3	329-332
POSITION PAPER		
Whither chemical education? A personal view <i>S.F.A. Kettle</i>	1	5-8
NEWS AND ANNOUNCEMENTS	1	53
	2	171-172
	3	333-335
LETTERS	2	171-172
REVIEWERS, VOLUME 2, 2001	3	337
CONTENTS, VOLUME 2, 2001	3	338-340
AUTHOR INDEX, VOLUME 2, 2001	3	341-343
SUBJECT INDEX, VOLUME 2, 2001	3	344-345