CONTENTS, VOLUME 3, 2002

Title and author	Issue	Pages
GUEST EDITORIAL Technology and tragedy J.W. Moore	1	3-4
RESEARCH REPORTS		
Students' errors in solving numerical chemical-equilibrium problems <i>M. Kousathana & G. Tsaparlis</i>	1	5-17
The development of the chemistry attitudes and experiences questionnaire (CAEQ) R.K. Coll & J. Dalgety	1	19-32
Pre-service primary teachers' mental models of kinetic theory <i>N. Taylor & R.K. Coll</i>	3	293-315
Student teachers' problems in teaching 'electrolysis' with a key demonstration M. Ahtee, T. Asunta & H. Palm	3	317-326
REVIEW OF SCIENCE EDUCATION RESEARCH AND PRACTICE		
The learning and teaching of the concepts 'amount of substance' and 'mole'. A review of the literature <i>Furió</i> , <i>R. Azcona, and Y.J.Guisasola</i>	3	277-292
THE PRACTICE OF CHEMISTRY EDUCATION: REVIEW PAPER		
The most well-known rearrangements in organic chemistry at hand <i>S. Moulay</i> THE PRACTICE OF CHEMISTRY EDUCATION: PAPERS	1	33-64
An approach in supporting university chemistry teaching <i>G. Sirhan & N. Reid</i>	1	65-75

Teaching <i>Biodiesel</i> : A sociocritical and problem-oriented approach to chemistry teaching, and students' first views on it <i>I. Eilks</i>	1	77-85
The use of the Arrhenius equation in the study of deterioration and of cooking of foods - Some scientific and pedagogic aspects <i>A.L. Petrou, M. Roulia, & K. Kampouris</i>	1	87-97
Theme Issue 2 on STRUCTURAL CONCEPTS		
PREFACE G. Tsaparlis	2	107-112
INVITED PAPERS (1): CONTRIBUTION FROM SCIENCE		
Describing reactivity with structural formulas, or when push comes to shove <i>P. Laszlo</i>	2	113-118
REVIEWED PAPERS (1): CONTRIBUTION FROM SCIENCE		
Understanding delocalization and hyperconjugation in terms of (covalent and ionic) resonance structures P. Karafiloglou	2	119-127
REVIEWED PAPERS (2): SCIENCE-EDUCATION RESEARCH REPORTS		
Quantum-chemical concepts: Are they suitable for secondary students? <i>G. Tsaparlis and G. Papaphotis</i>	2	129-144
Conceptualizing quanta - Illuminating the ground state of student understanding of atomic orbitals <i>K.S. Taber</i>	2	145-158
Compounding quanta - Probing the frontiers of student understanding of molecular orbitals <i>K.S. Taber</i>	2	159-173
Mental models in chemistry: Senior chemistry students' mental models of chemical bonding <i>R.K. Coll and N. Taylor</i>	2	175-184

REVIEWED PAPERS (3): PAPER ON THE PRACTICE OF
CHEMISTRY EDUCATION (INCLUDING RESEARCH)

Structural units and chemical formulae HD. Barke and H. Wirbs	2	185-200
REVIEWED PAPERS (4): REVIEW OF RESEARCH Students' corpuscular conceptions in the context of chemical equilibrium and chemical kinetics J.H. Van Driel	2	201-213
REVIEWED PAPERS (5): CONTRIBUTION FROM SCIENCE AND SCIENCE EDUCATION Teaching chemistry progressively: From substances, to atoms and molecules, to electrons and nuclei P.G. Nelson	2	215-228
INVITED PAPERS (2): FURTHER CONTRIBUTIONS FROM SCIENCE Nuclear magnetic resonance (NMR) spectroscopy: Basic principles and phenomena, and their applications to chemistry, biology and medicine I. P. Gerothanasis, A. Troganis, V. Exarchou, and K. Barbarossou Classical and quantum chemical rate constants in condensed phases	2	229-252 253-268
R. Kapral and S. Consta SPECIAL SECTION: PAPERS FROM THE 6 TH ECRICE/2 ND ECCE		
Research and research utilization in chemical education R. Kempa REVIEWED CONTRIBUTIONS THE PRACTICE OF CHEMISTRY EDUCATION: PAPERS	3	327-343
Teachers' continuing learning of chemistry: Some implications for science teaching A. Goodwin	3	345-359

THE PRACTICE OF CHEMISTRY EDUCATION: REPORTS

Securing the future of chemistry: A case study of developments in chemical education in Ireland <i>P.E. Childs</i>	3	361-369
NEWS AND ANNOUNCEMENTS	1	99-103
	2	269-274
	3	371-374
REVIEWERS, VOLUME 3, 2002	3	375
CONTENTS, VOLUME 3, 2002	3	377-380
AUTHOR INDEX, VOLUME 3, 2002	3	381-382
SUBJECT INDEX, VOLUME 3, 2002	3	383-384