

Georgios Tsaparlis

Professor Emeritus of Science Education

University of Ioannina, Department of Chemistry
GR-451 10 Ioannina, Greece

Royal Society of Chemistry's
Education Award Winner for 2016

<http://www.rsc.org/ScienceAndTechnology/Awards/EducationAward/2016-Winner.asp>

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Qualifications:

Ptycheion (1st degree) in Chemistry. National and Kapodistrian University of Athens

M.Sc. and Ph.D. in *chemical physics (quantum chemistry)*. University of East Anglia

Membership of Scientific Bodies/Associations:

- Fellow of the Royal Society of Chemistry (FRSC)
- Association of Greek Chemists
- European Science Education Research Association (ESERA),
- National Association for Research in Science Teaching (NARST)
- Australasian Science Education Research Association (ASERA)
- (Greek) Association of Science and Technology Education (ENEPPhET)

Google Scholar page:

https://scholar.google.com/citations?hl=en&user=A12exskAAAAJ&view_op=list_works

ResearchGate page:

https://www.researchgate.net/profile/Georgios_Tsaparlis

Academia page:

<https://uoi.academia.edu/GeorgiosTsaparlis>



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This CV was last updated
by Georgios Tsaparlis
on 12 October 2019

PROFILE

Dr Georgios Tsaparlis is Professor Emeritus of Science Education in the Department of Chemistry at the University of Ioannina, Greece. After graduating in chemistry at the University of Athens (supported by a Greek state scholarship), he undertook postgraduate studies (also supported by a Greek state scholarship) at the University of East Anglia, England, where he completed his M.Sc. and Ph.D. in chemical physics/theoretical chemistry, working with Professor S. F. A. Kettle.

Georgios took up the post of teaching assistant at the University of Ioannina in 1978 and was appointed as a lecturer in the section of physical chemistry in 1982. He was subsequently promoted to assistant professor (1985), associate professor (1998) and full professor (2009). In 1990 he worked as a post-doctoral fellow at the University of Glasgow, Centre of Science Education, under Prof. Alex H. Johnstone, and in 1997 he spent a short period as counselor for chemistry at the Greek Pedagogic Institute. He retired in September 2015, after 38 years of service.

Georgios has taught a wide variety of physical chemistry courses at both undergraduate and graduate levels and has contributed to many science and chemistry education courses. *He* has focused his research towards improving *science and chemistry education* through research and practice and *has studied structural concepts (with an emphasis on quantum chemistry), the effects of cognitive factors on problem solving, higher-order cognitive skills, the application of non-linear methodologies in education, and many other educational issues, including chemistry curricula.*

Currently (October 2019), he is the author/co-author of 63 scientific papers in international peer-reviewed journals (plus several editorial articles), the author of 1 article in an international encyclopaedia of chemistry, 1 article in an international encyclopaedia of science education, as well as of 12 chapters in 10 international books, co-editor of “Concepts of Matter in Science Education” (Springer), and guest co-editor of the “Chemistry Education Research and Practice” issue on physical chemistry education:

<http://pubs.rsc.org/en/journals/journalissues/rp#!issueid=rp015003&type=current>

In addition, he has published extensively in his native language, Greek.

Dr Tsaparlis was the founding editor (2000-2004) and, from 2005 until 2011, joint editor of the journal “Chemistry Education Research and Practice (CERP)”: <http://www.rsc.org/cerp> Since 2007 the journal is included in the Citation Index. The most recent (2018) Impact Factor of CERP is 2.285, a figure which among the highest for chemistry and science education journals. [2018 Journal Citation Reports® (Thomson Reuters, 2019)]

He is married to *Gioula* and has a son (*Jason*) and a daughter (*Vasiliki*). He lives in the town of Ioannina, Greece.

AWARD

Georgios Tsaparlis was the *Royal Society of Chemistry's Education Award Winner for 2016*, an award which “recognises a major high level contribution to education in the chemical sciences, over a sustained period of time”. In particular, Dr Tsaparlis, was awarded

“for his extensive contributions to chemistry education research over many years including having been the founding editor of the journal *Chemistry Education Research and Practice*, now the top ranked journal in chemical education”.

RELATED LINKS:

<http://www.rsc.org/ScienceAndTechnology/Awards/EducationAward/2016-Winner.asp>

<http://www.rsc.org/news-events/articles/2016/may/awards-and-prizes-2016>

<http://www.rsc.org/eic/2016/05/royal-society-chemistry-education-awards-2016>

<http://pubs.rsc.org/en/journals/articlecollectionlanding?sercode=rp&themeid=4c5260b4-9817-4640-aabb-ae314ac8acc9>

https://www.uea.ac.uk/chemistry/news-and-events/-/asset_publisher/SMHYILFw2E4e/blog/prof-georgios-tsaparlis-receives-rsc-education-award?inheritRedirect=false&redirect=https%3A%2F%2Fwww.uea.ac.uk%2Fchemistry%2Fnews-and-events%3Fp_p_id%3D101_INSTANCE_SMHYILFw2E4e%26p_p_lifecycle%3D0%26p_p_stat%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1

TEACHING

Dr. Tsaparlis has taught many undergraduate and graduate physical chemistry courses (quantum chemistry, electrochemistry, chemical spectroscopy, chemical kinetics, elementary physical chemistry, mathematics for physical chemistry), laboratory courses in general and physical chemistry, plus science and chemistry education and education research methods courses in the Department of Chemistry, Physical Chemistry Section, University of Ioannina. Also graduate courses of science and chemistry education in the Departments of Chemistry of the Universities of Athens and Thessaloniki, Greece. In 2007-08 and in 2008-09, he taught as invited professor of the University of Cyprus, a series of seminars in chemistry education to pre-service trainee chemistry teachers in Cyprus. Finally, in 2016-17 and 2017-18 he taught the undergraduate course "Science education" at the Department of Chemistry of the University of Ioannina. For most of the above courses, Dr. Tsaparlis wrote books or teacher notes in Greek.

RESEARCH TOPICS

Dr. Tsaparlis' main research interests relate to *science education*, with emphasis on *chemistry education*. The two major areas of research were on **problem solving in science education** and on **students' quantum chemistry conceptual understanding**. Particular research themes are:

- *effect of cognitive factors on problem solving in science*
- application of nonlinear methodologies in the analysis of problem solving data
- *higher-order cognitive skills (HOCS);*
- *structural concepts with emphasis on quantum chemical concepts;*
- *teaching and learning physical chemistry;*
- *secondary chemistry curricula;*
- *instructional methodology.*

Current Research Projects

- Teaching and learning chemical bonding in upper secondary school
- Teaching and learning chemical reactions in lower and upper secondary school
- Teaching and learning electrochemistry
- Teaching and learning chemical kinetics
- The laboratory of physical chemistry

Graduate Project Supervision

Currently (*October 2019*) he has supervised 19 successfully defended Ph.D. and 26 successfully defended masters theses in science/chemistry education. In addition, there are still in progress 2 Ph.D. theses.

PUBLICATIONS

Dr Tsaparlis's more significant publications are listed below.

Books

Tsaparlis G. (1989 & 1991). *Topics in Physics and Chemistry Teaching for Secondary Education* (in Greek). Athens Greece: Grigoris Publications.

EDITED VOLUME, PUBLISHED JULY 2013:

Tsaparlis G. & Sevian H. (eds.) *Concepts of Matter in Science Education*. Vol. 19 in Series: Innovations in Science Education and Technology. ISBN 978-94-007-5913-8 Hardcover, ISBN 978-94-007-5914-5 (eBook) (Springer) For more information about the book, including the contents, see PART 2 (PUBLICATIONS IN INTERNATIONAL BOOKS) or <http://www.springer.com/education+%26+language/science+education/book/978-94-007-5913-8>

- Author or co-author of the three chapters (see below section on 'Chapters in books')

NOTE: This edited volume resulted from the International Symposium which Georgios Tsaparlis organized in Athens, Greece, in 2010 (with George Kalkanis).

Articles in International Encyclopaedias

Tsaparlis G. (2015): Cognitive demand. In: Gunstone R. (Ed.) *Encyclopedia of Science Education*, pp. 164-167. Springer Dordrecht, Heidelberg, New York, London. <http://link.springer.com/referencework/10.1007/978-94-007-2150-0>

Tsaparlis, G. (2004). Atomic structure. In L.J. Lagowski (Ed.), *Chemistry: Foundations and Applications* (four-volume illustrated encyclopedia, Vol. 1, pp. 78-87. MacMillan

Chapters in Books

Tsaparlis G. (2018). Challenges, Barriers, and Achievements in Chemistry Education: The Case of Greece. In C. Cox and W. E. Schatzberg (eds.), *International Perspectives on Chemistry Education Research and Practice*, Ch. 7, pp. 93-110. Washington, DC, American Chemical Society. ISBN13: 9780841233461 (print); eISBN: 9780841233430 (electronic).

Tsaparlis G. (2014). Linking the macro with the submicro levels of chemistry: demonstrations and experiments that can contribute to active/meaningful/conceptual learning. In Devetak I. & Glažar S. A. (eds.) *Learning with understanding in the chemistry classroom*. Chapter 3, pp. 41-61. ISBN 978-94-007-4365-6 (Springer).

Tsaparlis G. & Sevian H. (2013). Concepts of matter – complex to teach and difficult to learn (*Introductory chapter*). In Tsaparlis G. & Sevian H. (eds.) *Concepts of Matter in Science Education*, pp. 1-8 ISBN 978-94-007-5913-8 (hardbound), ISBN 978-94-007-5914-5 (eBook) (Springer)

Tsaparlis G. (2013). Learning and teaching the basic quantum chemical concepts. In Tsaparlis G. & Sevian H. (eds.) *Concepts of Matter in Science Education*, pp. 437-460. (Springer)

Tsaparlis G. & Sevian H. (2013). Toward a scientifically sound understanding of concepts of matter (*Concluding chapter*) In Tsaparlis G. & Sevian H. (eds.) *Concepts of Matter in Science Education*, pp. 485-520. (Springer)

Tsaparlis G. (2012). Electrolysis, electrolytes, and galvanic cells. In K. S. Taber (Ed.), *Teaching secondary chemistry, 2nd edn.*, Ch. 8. London: Association for Science Education / Hodder Education.

Tsaparlis G. (2009). Learning at the macro level: the role of practical work. In J.K. Gilbert and D.F. Treagust (Eds.), *Multiple representations in chemical education*, Chapter 5, pp. 109-136. Springer.

Tsaparlis G. (2007). Teaching and learning physical chemistry – Review of educational research. In M.D. Ellison & T.A. Schoolcraft (Eds.), *Advances in Teaching Physical Chemistry*, Ch. 7. Washington DC: American Chemical Society (Distributed by Oxford University Press).

Tsaparlis G. (2007). The rivalry among the separate science subjects for dominance in secondary education: The case of Greece and beyond. In R.K. Coll and N. Taylor (Eds.), *Education in context - An international perspective of the influence of context on science curricula development, and implementation*. Sense Publishers.

Stamovlasis, D. & Tsaparlis, G. (2003). Nonlinear analysis of the effect of working memory capacity on student performance in problem solving. In D. Psillos et al. (Eds.), *Science education in the knowledge-based society*, pp. 183-190. Kluwer Academic Publishers.

Tsaparlis, G. (2000). Problem solving in chemistry in science education. In M. Ahtee et al. (eds.), *Research on mathematics and science education*, pp. 67-87. University of Jyväskylä, Finland: Institute for Educational Research.

Tsaparlis, G. (1994). Blocking mechanisms in problem solving from the Pascual-Leone's M-space perspective. In H.-J. Schmidt (Ed.), *Proceedings of the 1994 International Symposium Problem Solving and Misconceptions in Chemistry and Physics*, pp. 211-226. The International Council of Association for Science Education (ICASE).

Recent (2011-2019) Journal Papers

Tsaparlis G., Pappa E. T., & Byers, B. (2019). Proposed pedagogies for teaching and learning chemical bonding in secondary education. *Chemistry Teacher International*. Early View (Ahead of print): <https://www.degruyter.com/view/j/cti> DOI: 10.1515/cti-2019-0002

Tsaparlis G. (2019). Teaching and learning electrochemistry (Review article in Special Issue: Chemistry Education, Eds. R. Blonder & R. Shenhar). *Israel Journal of Chemistry*, 59 (6-7) 478-492. DOI: 10.1002/ijch.201800071.

Tsaparlis G. (2018). Organizing and attending international conferences (Editorial). *Journal of Baltic Science Education*, 17 (6) 912-917. DOI: 10.33225/jbse/18.17.912

Tsaparlis G., Pappa E. T., & Byers, B. (2018). Teaching and learning chemical bonding: Research-based evidence for misconceptions and conceptual difficulties experienced by students in upper secondary schools and the effect of an enriched text. *Chemistry Education Research and Practice*, 19(4) 1253-1269. DOI: 10.1039/C8RP00035b. (Plus Supplementary files, DOI: C8RP00035b1, C8RP00035b2, C8RP00035b3.)

Tsaparlis, G. (2017). Controlling the variables relating to chemistry teaching and the training of chemistry teachers. Book review of: *A Guidebook of Good Practice for the Pre-Service Training of Chemistry Teachers*, Maciejowska I. and Byers B. (eds.), Faculty of Chemistry, Jagiellonian University in Krakow, 2015. Freely downloadable from the EC2E2N website: <http://www.ec2e2n.net/publication/msct2> *Studies in Science Education*, 53(2) 227-234. DOI:10.1080/03057267.2015.1108539, Published online: 23 Oct 2017.

Tsaparlis, G. (2016). Problems and solutions in chemistry education. *JOTCSC*, 1 (1), 1-30. (Review article). Free access at: <http://dergipark.ulakbim.gov.tr/jotcsc>

Tsaparlis, G. (2016). The logical and psychological structure of physical chemistry and its relevance to graduate students' opinions about the difficulties of the major areas of the subject. *Chemistry Education Research and Practice*, 17, 320-336. DOI: 10.1039/C5RP00203F.

Tsaparlis, G. (2016). Concepts, theoretical constructs, models, theories and the varied and rich practice of "Relevant chemistry education". Book review of: *Relevant chemistry education*, Ingo E. & Hofstein A. (eds.), Rotterdam: Sense, 2015. *Studies in Science Education*, 52 (2) 247-255. DOI:10.1080/03057267.2015.1108539, Published online: 13 Nov 2015.

Tsaparlis G. & Finlayson O. (2015). Physical chemistry education – the 2014 themed issue of *Chemistry Education Research and Practice*. *LUMAT*, 3(4), 568-575. Free access at: <http://www.luma.fi/lumat-en/3966>

Tsaparlis, G. (2015). First and second thoughts about teaching secondary chemistry. *LUMAT*, 3(3), 371-380. Free access at: <http://www.luma.fi/lumat-en/3863>

Tsaparlis G. (2014). The logical and psychological structure of physical chemistry and its relevance to the organization/sequencing of the major areas covered in physical chemistry textbooks. *Chemistry Education Research and Practice*, 15, 391-401. DOI: 10.1039/C4RP00019F. Plus Additions and Corrections.

Avramiotis S. & Tsaparlis G. (2013). Using computer simulations in chemistry problem solving. *Chemistry Education Research and Practice*, 14, 299-311. DOI: 10.1039/C3RP20167H

Tsaparlis G., Hartzavalos S., & Nakiboğlu C. (2013). Students' knowledge of nuclear science and its connection with civic scientific literacy in two European contexts: the case of newspaper articles. *Science & Education*, 22, 1963-1991. DOI: 10.1007/s11191-013-9578-5

Taber K. S., Tsaparlis G., Nakiboğlu C. (2012). Student conceptions of ionic bonding: patterns of thinking across three national contexts. *International Journal of Science Education*, 34, 2843-2873. DOI:10.1080/09500693.2012.656150

Stamovlasis D. & Tsaparlis G. (2012). Applying catastrophe theory to an information-processing model of problem solving in science education. *Science Education*, 96, 392-410. DOI: 10.1002/scs.21002

Pappa E. T. & Tsaparlis G. (2011). Evaluation of questions in general chemistry textbooks according to the form of the questions and the Question-Answer Relationship (QAR): the case of intra- and intermolecular chemical bonding. *Chemistry Education Research and Practice*, 12, 262-270 (plus Supplementary Information). DOI: 10.1039/C1RP90031E

Selective Earlier Journal Papers

Tsaparlis G., Kolioulis D., & Pappa E. (2010). Lower-secondary introductory chemistry course: a novel approach based on science-education theories, with emphasis on the macroscopic approach, and the delayed meaningful teaching of the concepts of molecule and atom. *Chemistry Education Research and Practice*, 11, 107-117 (plus Supplementary Information). DOI: 10.1039/C005354F

Stefani Ch. & Tsaparlis G. (2009). Students' levels of explanations, models, and misconceptions in basic quantum chemistry: A phenomenographic study. *Journal of Research in Science Teaching*, 46, 520-536. DOI: 10.1002/tea.20279

Tsaparlis G. & Papaphotis G. (2009). High-school students' conceptual difficulties and attempts at conceptual change: the case of basic quantum chemical concepts. *International Journal of Science Education*, 31, 895-930. DOI: 10.1080/09500690801891908

- Papaphotis G. & Tsaparlis G. (2008). Conceptual versus algorithmic learning in high school chemistry: the case of basic quantum chemical concepts, Part 1. Statistical analysis of a quantitative study. *Chemistry Education Research and Practice*, 9 (4) 323-331. DOI: 10.1039/B818468M
- Papaphotis G. & Tsaparlis G. (2008). Conceptual versus algorithmic learning in high school chemistry: the case of basic quantum chemical concepts, Part 2. Students' common errors, misconceptions, and difficulties in understanding. *Chemistry Education Research and Practice*, 9, 332-340. DOI: 10.1039/B818470B
- Tsaparlis G. & Gorezi, M. (2007). Addition of a project-based component to the expository physical chemistry laboratory. *Journal of Chemical Education*, 84, 668-670 (plus the full paper in JCE Software). DOI: 10.1021/ed084p668
- Stamovlasis, D., Dimos, A., & Tsaparlis, G. (2006). A study of group-interaction processes in learning lower-secondary physics. *Journal of Research in Science Teaching*, 43, 556-576. DOI: 10.1002/tea.20134
- Tsaparlis, G. (2005). Non-algorithmic quantitative problem solving in university physical chemistry: a correlation study of the role of selective cognitive variables. *Research in Science and Technological Education*, 23, 125-148. DOI: 10.1080/02635140500266369
- Stamovlasis, D. & Tsaparlis, G. (2005). Cognitive variables in problem solving: a nonlinear approach, *International Journal of Science and Mathematics Education*, 3, 7-32. DOI: 10.1007/s10763-004-3918-5
- Kousathana M, Demerouti M., & Tsaparlis G. (2005). Instructional misconceptions in acid-base equilibria: An analysis from a history and philosophy of science perspective, *Science & Education*, 14, 173-193. DOI: 10.1007/s11191-005-5719-9
- Stamovlasis, D., Tsaparlis, G. Kamilatos, C., Papaoikonomou, D., & Zarotiadou E. (2004). Algorithmic problem solving versus conceptual understanding: A principal component analysis of a national examination. *The Chemical Educator*, 398-405.
- M. Niaz, F. Abd-El-Khalick, A. Benarroch, L. Cardellini, C.E. Laburú, N. Marín, L.A. Montes, R. Nola, Y. Orlik, L.C. Scharmann, C.-C. Tsai, & G. Tsaparlis (2003). Constructivism: Defense or a continual critical appraisal - A response to Gil-Pérez et al. *Science & Education*, 12, 787-797. DOI: 10.1023/B:SCED.0000004555.57519.8f
- Stamovlasis D. & Tsaparlis G. (2003). A complexity theory model in science education problem solving: Random walks for working memory and mental capacity. *Nonlinear Dynamics in Psychology and Life Sciences*, 7, 221-243. DOI: 10.1023/A:1022810500672
- Tsaparlis G. (2003). Chemical phenomena versus chemical reactions: do students make the connection? *Chemistry Education Research and Practice*, 4, 31-43. DOI: 10.1039/B2RP90035A
- Stamovlasis D., Kousathana M., Angelopoulos V., Tsaparlis G, & Niaz M., (2002). Achievement in chemistry problem-solving as a function of the mobility-fixity dimension. *Perceptual and Motor Skills*, 95, 914-924. DOI: 10.2466/pms.2002.95.3.914
- Stamovlasis D. & Tsaparlis G. (2001). Application of complexity theory to an information-processing model in science education. *Nonlinear Dynamics in Psychology and Life Sciences*, 5, 267-286. DOI: 10.1023/A:1009514607622
- Tsaparlis G. (2001). Towards a meaningful introduction to the Schrödinger equation through historical and heuristic approaches. *Chemistry Education Research and Practice*, 2, 203-213. DOI: 10.1039/B1RP90023D

Tsaparlis G. (2000). The states-of-matter approach (SOMA) to introductory chemistry. *Chemistry Education Research and Practice*, 1, 161-168. DOI: 10.1039/A9RP90017A

Tsaparlis G. & Angelopoulos V. (2000). A model of problem-solving: Its operation, validity, and usefulness in the case of organic-synthesis problems. *Science Education*, 84, 151-153. DOI: 10.1002/(SICI)1098-237X(200003)84:2<131::AID-SCE1>3.0.CO;2-4

Tsaparlis G., Kousathana M., & Niaz M. (1998). Molecular-equilibrium problems: Manipulation of logical structure and of M-demand, and their effect on student performance. *Science Education*, 82, 437-454. DOI: 10.1002/(SICI)1098-237X(199807)82:4<437::AID-SCE2>3.0.CO;2-C

Tsaparlis G. (1998). Dimensional analysis and predictive models in problem solving. *International Journal of Science Education*, 20, 335-350. DOI: 10.1080/0950069980200306

Zoller U. & Tsaparlis G. (1997). Higher and lower-order cognitive skills: The case of chemistry. *Research in Science Education*, 27, 117-130. DOI: 10.1007/BF02463036

Tsaparlis G. (1997). Atomic and molecular structure in chemical education: A critical analysis from various perspectives of science education. G. Tsaparlis, *Journal of Chemical Education*, 74, 922-925. DOI: 10.1021/ed074p922

Tsaparlis G. (1997). Atomic orbitals, molecular orbitals and related concepts: Conceptual difficulties among chemistry students. *Research in Science Education*, 27, 271-287. DOI: 10.1007/BF02461321

CITATIONS

Complete publication list in English (plus citation data, *h*-index and *i10*-index) may be found at Dr. Tsaparlis' *Google Scholar* page:

https://scholar.google.com/citations?hl=en&user=A12exskAAAAJ&view_op=list_works

See also his **ResearchGate** page:

https://www.researchgate.net/profile/Georgios_Tsaparlis

He also has a listing on **Academia**:

<https://uoi.academia.edu/GeorgiosTsaparlis>

FULL LIST OF PUBLICATIONS

A fuller list of Dr. Tsaparlis's publications (including international conferences and Greek publications and conferences) is available:

- PUBLICATIONS IN INTERNATIONAL JOURNALS* <http://users.uoi.gr/gtseper/CVPart1.pdf>
- PUBLICATIONS IN INTERNATIONAL BOOKS <http://users.uoi.gr/gtseper/CVPart2.pdf>
- INTERNATIONAL CONFERENCES, SYMPOSIA AND SEMINARS <http://users.uoi.gr/gtseper/CVPart3.pdf>
- BOOKS IN GREEK <http://users.uoi.gr/gtseper/CVPart4.pdf>
- PUBLICATIONS IN GREEK JOURNALS (in Greek) <http://users.uoi.gr/gtseper/CVPart5.pdf>
- GREEK CONFERENCES (in Greek) <http://users.uoi.gr/gtseper/CVPart6.pdf>

* Arranged according to topic

OTHER ACADEMIC ACTIVITIES

Dr. Tsaparlis is member of the editorial boards of the following journals:

- *International Journal of Science Education* (UK)
- *Research in Science Education* (Australia)
- *Research in Science and Technological Education* (UK)
- *Journal of Excellence in Educational Research* (USA)
- *Journal of Baltic Science Education* (Lithuania)
- *Eurasian Journal of Physics and Chemistry Education* (Turkey).

Member of the international advisory boards of:

- the journal *Chemistry Education Research and Practice* (UK)
- the RSC *Advances in Chemistry Education Book Series*.

He has served in the editorial boards of:

- *Journal of Research in Science Teaching* (USA)
- *Chemistry Education Research and Practice* (UK)
- *Didaskalia* (France).

Also he has been reviewing for:

- *Science Education* (USA)
- *Science & Education* (Australia)
- *Journal of Chemical Education* (USA)
- *International Journal of Science and Mathematics Education* (Taiwan)
- Organizer of the: 5th European Conference on Research in Chemical Education (5th ECRICE) in Ioannina in 1999.
- Chairman of the organizing committee of the: 5th Greek Conference "Science Education and New Technologies in Education", in Ioannina in 2007.

- Creator and editor of the Internet site (in Greek): “Network for Science Education and Educational Technology” (KoDiPheET): <http://kodipheet.chem.uoi.gr>
- Organiser (with Professor George Kalkanis), of the international science education symposium on “Particulate and Structural Concepts of Matter”: University of Athens, Athens, Greece, 5-8 November 2010.
- Coordinator of the group of chemistry experts for writing new programs of study for chemistry for lower secondary Greek schools, in the context of the project “NEW SCHOOL (21th Century School) - New program of studies”. In the same project, Dr. Tsaparlis participated also in the group of experts for writing the new science programs of study for Greek primary schools.
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- Chairman of the organizing committee of the “*Conference of Graduate Studies 2013*” of the Department of Chemistry of the University of Ioannina, Ioannina, Greece, 28-30 March 2013. [See report (in Greek) at: <http://www.chem.uoi.gr/el/node/208> and *Program and Book of Abstracts* (in Greek) at: http://www.chem.uoi.gr/sites/default/files/prg_bsu.pdf (in Greek)]
- Guest editor (with Odilla Finlayson) of the 2014 special issue of the journal “*Chemistry Education Research and Practice*” on the theme of *Physical Chemistry Education* (Volume 15, No. 3, July issue).

Funded projects

- 1) 1998-2000. Scientifically responsible for: *Introduction to physical science* (physics and chemistry) for the seventh Greek grade.
- 2) 1998-2008. Scientifically responsible for the University of Ioannina for the inter-university program of graduate studies entitled "*Chemical Education and New Educational Technologies*" (DiCheNET) organized by the Chemistry Departments of the Universities of Athens, Thessaloniki and Ioannina, and the Department of Chemical Engineering of the National Technical University of Athens. In the context of this program, Dr. Tsaparlis taught for a number of years graduate courses of science and chemistry education in Athens and Thessaloniki. See paper: *Chem. Educ. Res. Pract.*, 2000, 1, 405-410, DOI: 10.1039/B0RP90020F
- 3) 2006-2009. Partner for Greece in the EU project: *Popularity and Relevance of Science Education for scientific Literacy* (PARSEL), which has produced educational material in various European languages:

<http://icaseonline.net/parse/parsel/www.parsel.uni-kiel.de/cms/indexe435.html?id=home>