

# Katerina Salta



## Laboratory Teaching Staff

LAB OF INORGANIC CHEMISTRY, DEPARTMENT OF CHEMISTRY, NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

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## EDUCATION

- 1985 Bachelor of Science in Chemistry
- 2001 Master/ National and Kapodistrian University of Athens / The Attitudes towards Chemistry among the Students of the 2nd Grade of the Unified Lyceum
- 2007 PhD/ National and Kapodistrian University of Athens/ Investigation of the Knowledge, Skills, and Attitudes that Students Acquire from the Chemistry Course during their Education and the Role that They Play in Their Everyday Life.

## RESEARCH FIELDS

- Green Chemistry in Education
- Systems Thinking
- Visual Representations
- The Laboratory as Learning Environment
- Motivation to Learn

## EDUCATIONAL EXPERIENCE

### UNDERGRADUATE COURSES

- TEACHING CHEMISTRY/Required/ Department of Chemistry
- HISTORY OF NATURAL SCIENCES/ Elective/Department of Chemistry
- LABORATORY GENERAL AND INORGANIC CHEMISTRY I/Required/ Department of Chemistry
- LABORATORY INORGANIC CHEMISTRY II/ Required/ Department of Chemistry

### GRADUATE COURSES

- Department of Chemistry/"Chemistry Education, Information and Communication Technology and Education for Sustainable Development"/ Chemistry Education I/
- Department of Chemistry/"Chemistry Education, Information and Communication Technology and Education for Sustainable Development"/ Chemistry Education II/
- Department of Chemistry/"Chemistry Education, Information and Communication Technology and Education for Sustainable Development"/ Methodology of Educational Research/
- Department of Chemistry/"Chemistry Education, Information and Communication Technology and Education for Sustainable Development"/ Practical Training

## RESEARCH GRANTS

- COSY THINKING, “Enhancing higher education on COmplex Systems THINKING for sustainable development”/ Dionysios Koulougliotis, Ionian University/ Erasmus+ Programme – Strategic Partnerships for Higher Education/ 2020-2023
- IRRESISTIBLE “Including Responsible Research and innovation in cutting Edge Science and Inquiry-based Science education to improve Teacher's Ability of Bridging Learning Environments”/ Dimitris Stavrou, University of Crete/European Union, 7th Framework Programme/2014-2016
- MolVisEdu “Students' visuospatial abilities and comprehension - learning of concepts related to molecular structure. Design, development and evaluation of educational molecular visualization and enhanced reality software for secondary and tertiary education”/ Michael Sigalas, Aristotle University of Thessaloniki/Thales. Investing in knowledge society through the European Social Fund /2013-2015
- “Chemistry Is All Around NETWORK”/ Dionysios Koulougliotis, TEI of Ionian Islands/ European Commission Lifelong Learning Programme Comenius/2011-2014
- “Chemistry Is All Around Us”/ Dionysios Koulougliotis, TEI of Ionian Islands/ European Commission Lifelong Learning Programme Leonardo da Vinci/2010-2011

#### REVIEWER OF SCIENTIFIC JOURNALS

- Journal of Research in Science Teaching
- Chemistry Education Research and Practice
- Journal of Chemical Education

#### ADDITIONAL INFORMATION

- Presentations at conferences: **82**
- Supervision of graduate students: **4**
- Supervision of undergraduate students: **12**

#### SELECTED PUBLICATIONS (link OF PUBLICATIONS)

- Salta, K., & Koulougliotis, D.** (2022). Exploring factors that affect undergraduate students' motivation to learn chemistry and physics. *Journal of Baltic Science Education*, **21**(6A), 1191-1204. <https://doi.org/10.33225/jbse/22.21.1191>
- Paschalidou, K., **Salta, K., & Koulougliotis, D.** (2022). Exploring the connections between systems thinking and green chemistry in the context of chemistry education: A scoping review. *Sustainable Chemistry and Pharmacy*, **29**, 100788. <https://doi.org/10.1016/j.scp.2022.100788>
- Salta, K., Ntalakou, E., & Tsiortos, Z.** (2022). Review of Hands-On Laboratory Experiments Employing Household Supplies. *Journal of Chemical Education*. **99**(7), 2563–2571. <https://doi.org/10.1021/acs.jchemed.2c00037>
- Salta, K., Paschalidou, K., Tsetseri, M., & Koulougliotis, D.** (2022). Shift from a Traditional to a Distance Learning Environment during the COVID-19 Pandemic: University Students' Engagement and Interactions. *Science & Education*. **31**(1), 93–122. <https://doi.org/10.1007/s11191-021-00234-x>
- Vachliotis, T., **Salta, K. & Tzougraki C.** (2021). Developing Basic Systems Thinking Skills for Deeper Understanding of Chemistry Concepts in High School Students. *Thinking Skills and Creativity*. **41**, 100881. <https://doi.org/10.1016/j.tsc.2021.100881>
- Koulougliotis, D., Antonoglou, L., & **Salta, K.** (2021). Probing Greek secondary school students' awareness of Green Chemistry Principles infused in context-based projects related to socio-scientific issues. *International Journal of Science Education*, **43** (2), 298-313. <https://doi.org/10.1080/09500693.2020.1867327>
- Salta, K., & Koulougliotis, D.** (2020). Domain specificity of motivation: Chemistry and Physics Learning among Undergraduate Students of Three Academic Majors. *International Journal of Science Education*, **42** (2), 253-270. <https://doi.org/10.1080/09500693.2019.1708511>
- Gkitzia, V., **Salta, K. & Tzougraki C.** (2020). Students' Competence in Translating Between Different Types of Chemical Representations. *Chemistry Education Research and Practice*, **21** (1), 307- 330. <https://doi.org/10.1039/C8RP00301G>
- Antonoglou, L., **Salta, K., & Koulougliotis, D.** (2019). Integration of web-based tools in science teaching in secondary education in Greece. *AIP Conference Proceedings*, **2075** (1), 200002. <https://doi.org/10.1063/1.5091427>
- Gegios, T., **Salta, K. & Koinis, S.** (2017). Investigating high-school chemical kinetics: the Greek chemistry textbook and students' difficulties. *Chemistry Education Research and Practice*, **18**(1), 151-168. <https://doi.org/10.1039/C6RP00192K>

