

EDUCATION

PhD in Chemistry, <i>University of Crete, Department of Chemistry</i>	2022- since today
Master Degree in Materials Science and Technology, Grade 8.79 out of 10 <i>University of Crete, Department of Materials Science and Technology</i>	2019-2022
Undergraduate Degree in Chemistry, Grade 6.98 out of 10 <i>University of Crete, Department of Chemistry</i>	2014-2019
Greek Apolytirion, Pan-Hellenic Exams, Science Stream, Grade 19.1 out of 20 <i>2o General Lyceum, Tripoli, Greece</i>	2011-2014

RESEARCH EXPERIENCE

GRADUATE

Photonics for Cultural Heritage,
Institute of Electronic Structure & Laser – Foundation for Research & Technology Hellas, (IESL-FORTH)

- Thesis: Adapting Surface Enhanced Raman Spectroscopy for organic residue analysis in archaeological artifacts
- In situ analytical campaign in Santorini, archaeological site of Akrotiri, with the use of XRF and ATR techniques. Further investigation of samples collected on site were examined using XRD.
- In situ pigment analysis of the wall paintings at the Byzantine church of "Agios Ioannis Prodromos" in Episkopi, Crete, applying molecular (Fiber Optic Diffuse Reflectance spectrometer, Raman) and elemental (XRF, LIBS spectrometer) spectroscopic techniques.
- In situ pigment analysis on three icons exhibited in the Museum of Christian Art "Agia Aikaterini". The "The last supper" and the "Noli me tangere" in order to study the signature of the cretan creator Michael Damaskenos, as well as the "Virgin and Christ child" dated in late 14th century created by an anonymous artist.

UNDERGRADUATE

Photonics for Cultural Heritage,
Institute of Electronic Structure & Laser – Foundation for Research & Technology Hellas, (IESL-FORTH)

- Thesis Title: *Characterization of inorganic pigments with diffuse reflectance spectrophotometry in the visible and near-IR regime, 400-2500 nm.*
- Extended use of molecular spectroscopy (Diffuse and Fiber Optic Reflectance, Raman, UV-Vis, Fluorescence) for characterization of materials (pigments, organic residues, minerals, etc.)
- In situ measurements of cultural heritage monuments and materials with the use of a portable Fiber Optic Diffuse Reflectance spectrometer. *Examined CH monuments:* Knossos & Koule Archaeological Sites, Church of Panagia at Fodele; *Examined CH materials:* part of Heraklion Archaeological Museum's collection, fragments of Early Minoan mural in Ephorate of Antiquities' lab.
- Fluorescence measurements on pigments for the development of a portable fluorescence spectrophotometer.

Undergraduate Laboratories

2017-2019

Department of Chemistry, University of Crete

- Characterization of compounds with IR and NMR spectroscopy
- Qualitative and quantitative analysis with atomic spectroscopy (LIBS, Flame Atomic Absorption)
- Chromatographic analysis for identification and separation of compounds (LC, RPLC, GC, TLC, IMAC, IC)
- Use of basic instrumentation (spectrometer, centrifuge, microscope, vacuum technology, pHmeter, electrophoresis, magnetometer)
- Knowledge of conventional analytical techniques (distillation, filtration, extraction, titration)
- Experience on organic and inorganic synthesis

RELEVANT SKILLS & EXPERIENCES

- Fundamental laser and lab safety
- TEM, SEM, AFM theoretical background

2014-2018

Demonstrator

2015-2016

OPTO-CH workshop meets HERACLES EU project

2018

- In situ demonstration of a portable Diffuse reflectance spectrometer and FT-IR handheld system for monitoring and assessing the on-site environmental damage (Koule Archaeological Site, Heraklion, Greece)

ADDITIONAL RELEVANT EXPERIENCE

Conferences, Workshops and Courses Attended

- M. E. Konstantinou, M. Roumpou, A. Philippidis, S. Sotiropoulou, and D. Anglos, Developing a multi-analytical methodology for the detection and characterization of organic residues in archaeological findings using molecular spectroscopic techniques, 8th Symposium HSA, 17-20 Oct. Athens, Greece, (Oral presentation)
- M. E. Konstantinou, E. Ralli, I. Misyri, M. Roumpou, A. Philippidis, S. Sotiropoulou, A. Spyros, and D. Anglos, Towards a Multi-Analytical Methodology Based on Molecular Spectroscopic Techniques for the Detection and Characterization of Organic Residues in Archaeological Findings, Workshop for Young Researchers in Archaeometry 2023, 4-6 Oct. Tübingen, Germany, (Online Oral presentation)
- M. E. Konstantinou, E. Ralli, I. Misyri, M. Roumpou, A. Philippidis, S. Sotiropoulou, A. Spyros, and D. Anglos, Towards a multi-analytical methodology based on molecular spectroscopic techniques for the detection and characterization of organic residues in archaeological findings, 13th International Conference on Instrumental Methods of Analysis: Modern Trends and Applications, 17-20 Sept 2023 Chania, Crete, (Oral presentation)
- M. E. Konstantinou, E. Ralli, I. Misyri, M. Roumpou, A. Philippidis, S. Sotiropoulou, A. Spyros, and D. Anglos, Towards a multi-analytical methodology based on molecular spectroscopy techniques for the detection and characterization of organic residues in archaeological findings, XXIVth congress of GMPCA: Archeometry 2023, 17-21 Apr 2023 Nice, France, (Poster presentation)
- 1st HS Academy Training Camp in Burgos, 11-15 Jul, 2022
- M. E. Konstantinou, A. Philippidis and D. Anglos, Adapting Surface Enhanced Raman Spectroscopy for organic residue analysis in archaeological artifacts, 12th International Conference on Instrumental Analysis Modern Trends, 20-23 Sept 2021 (Poster presentation)
- P. Siozos, S. Sotiropoulou, M. Konstantinou, A. Philippidis and D. Anglos, Versatile portable spectrometer for analysis of pigments, TECHNART 2019: the European conference on the use of Analytical methods for Characterization of Works of Art, 7-10 May 2019 (Poster presentation)
- OPTO-CH workshops: Laser Technologies in Cultural Heritage Analysis, Diagnosis and Conservation 19-24 Jun, 2017
- 18th Chemistry Postgraduate Conference 26-47 Mar, 2016
- 12th Chemistry Congress of Greece and Cyprus "CHEMISTRY, DEVELOPMENT PILOT IN THE AFTER CRISIS PERIOD", 8-10 May, 2015

LANGUAGES AND TECHNOLOGIES

- Greek, Mother tongue
- English, Basic (Lower level; Michigan Certifications)
- German, Basic Understanding (B1 level; State Certification)

Computer Skills

- Office Suite: MS Office (MS Word; Vellum Certification, MS Excel; Vellum Certification, MS PowerPoint), LibreOffice
- Scientific Suite: Origin, LabSpec, LabVIEW

REFEREES

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