

Christina Papachristodoulou | Short CV

Dr Christina Papachristodoulou is a Laboratory Teaching Staff member at the Department of Physics, University of Ioannina. She received her bachelor (1994) and PhD (2000) degrees from the Department of Physics, University of Ioannina and had a postdoctoral position for the n_TOF project at CERN (2000-02). She has also been appointed to operate the X-ray fluorescence spectrometry (2002 onwards) and the X-ray diffractometry (2010 onwards) Units of the Research Supporting Laboratory Center of the University of Ioannina.

Research interests: Experimental Nuclear Physics, Environmental radioactivity, Radiation Detectors, gamma- and X-ray spectrometry, materials characterization by X-ray analytical techniques, archaeometric studies of provenance and manufacture technologies of ceramic materials.

Publications: over 50 in peer-reviewed journals, over 70 in national and international conference proceedings.

Reviewer in Scientific Journals: has reviewed manuscripts for the following Journals: Applied Radiation and Isotopes, Colloids and Surfaces A, Environmental Pollution, Journal of Environmental Radioactivity, Nuclear Instruments and Methods B, HNPS Advances in Nuclear Physics, Talanta, Spectrochimica Acta A, International Research Journal of Pure and Applied Chemistry, Archaeometry, Journal of Archaeological Science.

Research projects: has participated in over 20 research projects, including FP5 and FP6 EU projects, INTERREG III/V, bilateral cooperation projects funded by the Greek General Secretariat of Research and Technology.

LIST OF PUBLICATIONS IN REFEREED SCIENTIFIC JOURNALS

1. K.G. Ioannides, C.A. Papachristodoulou, D.T. Karamanis, K.C. Stamoulis, T.J. Mertzimekis: Measurements of ^{222}Rn Migration in Soils, Journal of Radioanalytical and Nuclear Chemistry Articles 208 (1996) 541-547.
2. K.G. Ioannides, T.J. Mertzimekis, C.A. Papachristodoulou, C.E. Tziaila: Measurements of natural Radioactivity in Phosphate Fertilizers, Science of Total Environment 196 (1997) 63-67.
3. C.A. Papachristodoulou, P.A. Assimakopoulos, N-H.J. Gangas, D.T. Karamanis: A new approach for enhancing Sr+2 retention by an Al-PILC in acidic solutions, Microporous and Mesoporous Materials 39 (2000) 367-379.
4. K.G. Ioannides, K.C. Stamoulis, C.A. Papachristodoulou: A survey of ^{222}Rn concentrations in dwellings of the town of Metsovo in North-western Greece, Health Physics 79 (2000) 697-702.
5. C.A. Papachristodoulou, P.A. Assimakopoulos, N-H.J. Gangas: Strontium adsorption properties of an Aluminum-Pillared Montmorillonite carrying carboxylate functional groups, Journal of Colloid and Interface Science 245 (2002) 23-39.
6. K.G. Ioannides, C.A. Papachristodoulou, T.J. Mertzimekis, C.E. Tziaila: Effect of Soil Amendments on Radiocesium Transfer to Alfalfa, Health Physics 84 (2003) 637-641.
7. C.A. Papachristodoulou, P.A. Assimakopoulos, N.E. Patronis, K.G. Ioannides: Use of HPGe γ -ray Spectrometry to Assess the Isotopic Composition of Uranium in soils, Journal of Environmental Radioactivity 64 (2003) 195-203.
8. D. Karamanis, S. Andriamonje, P.A. Assimakopoulos, G. Doukellis, D.A. Karademos, A. Karydas, M. Kokkoris, S. Kossionides, N. Nicolis, C. Papachristodoulou, C.T. Papadopoulos, N. Patronis, P. Pavlopoulos, G. Perdikakis, R. Vlastou: Neutron cross-section measurements in the Th-U cycle by the activation method, Nuclear Instruments and Methods A 505 (2003) 381-384.
9. K.G. Ioannides, C.A. Papachristodoulou, K.C. Stamoulis, D.T. Karamanis, S. Pavlides, E. Karakala, A. Chatzipetros: Soil gas radon: a tool for exploring active fault zones, Applied Radiation and Isotopes 59 (2003) 205-213.
10. K.G. Ioannides, C.A. Papachristodoulou, K.C. Stamoulis: Laboratory assessment of paint coatings as barriers to indoor radon contamination, Health Physics 84 (2003) S172.

11. A. Pakou, N. Alamanos, A. Lagoyannis, A. Gillibert, E.C. Pollacco, P.A. Assimakopoulos, G. Doukelis, K. Ioannides, D. Karadimos, D. Karamanis, M. Kokkoris, S. Kossionides, N.Nicolis, C. Papachristodoulou, N. Patronis, G. Perdikakis: The elastic scattering of $6\text{Li}+28\text{Si}$ at near-barrier energies, *Physics Letters B* 556 (2003) 21-26.
12. A. Pakou, N. Alamanos, A. Gillibert, M. Kokkoris, S. Kossionides, A. Lagoyannis, N.Nicolis, C. Papachristodoulou, D. Patiris, D. Pierroutsakou, E.C. Pollacco, K. Rusek: α -particle production in the reaction $6\text{Li}+28\text{Si}$ at near-barrier energies, *Physical Review Letters* 90 (2003) 202701.
13. C.A. Papachristodoulou, K.G. Ioannides, K.C. Stamoulis, S.B. Pavlides: Radon activity levels and effective doses in the Perama Cave, Greece, *Health Physics* 86 (2004) 619-624.
14. A. Pakou, N. Alamanos, G. Doukelis, A. Gillibert, G. Kalyva, M. Kokkoris, S. Kossionides, A. Lagoyannis, A. Musumarra, N. Patronis, C. Papachristodoulou, G. Perdikakis, D. Pierroutsakou, E.C. Pollacco, K. Rusek: The elastic scattering of $7\text{Li}+28\text{Si}$ at near-barrier energies, *Physical Review C* 69 (2004) 054602.
15. U. Abbondanno, G. Aerts, H. Álvarez et al.: The n_TOF Facility at CERN: Performances and First Physics Results, *AIP Conference Proceedings* 769 (2005) 724-729.
16. G. Aerts, U. Abbondanno, H. Álvarez et al.: Measurement of the ^{232}Th neutron capture cross section at the CERN n_TOF facility. *AIP Conference Proceedings* 769 (2005) 1470-1473.
17. A. Pakou, N. G. Nicolis, K. Rusek, N. Alamanos, G. Doukelis, A. Gillibert, G. Kalyva, M. Kokkoris, A. Lagoyannis, A. Musumarra, C. Papachristodoulou, N. Patronis, G. Perdikakis, D. Pierroutsakou, E.C. Pollacco, A. Spyrou, and Ch. Zarkadas: α -particle production: direct and compound contribution in the reaction $7\text{Li}+28\text{Si}$. *Phys. Rev C* 71 (2005) 064602.
18. A.F. Nisbet, J.A. Mercer, A. Rantavaara, R. Hanninen, C. Vandecasteele, B. Carlé, F. Hardeman, K.G. Ioannides, C. Papachristodoulou, C. Tzialla, H. Ollagnon, T. Jullien, V. Pupin: Achievements, difficulties and future challenges for the FARMING network. *Journal of Environmental Radioactivity* 83 (2005) 297-303.
19. K.G. Ioannides, C.E. Tzialla, C.A. Papachristodoulou, C. Papanikolaou, C. Apostolopoulos: Stakeholder involvement in nuclear crisis management in Greece. *Journal of Environmental Radioactivity* 83 (2005) 347-357.
20. A. Pakou, K. Rusek, N. G. Nicolis, N. Alamanos, G. Doukelis, A. Gillibert, G. Kalyva, M. Kokkoris, A. Lagoyannis, A. Musumarra, C. Papachristodoulou, N. Patronis, G. Perdikakis, D. Pierroutsakou, E.C. Pollacco, A. Spyrou, and Ch. Zarkadas: Reaction channels of $6,7\text{Li}+28\text{Si}$ at near barrier energies. *Journal of Physics G: Nuclear and Particle Physics* 31 (2005) S1723-S1727.
21. A. Pakou, N. Alamanos, N.M. Clarke, N.J. Davis, G. Doukelis, G. Kalyva, M. Kokkoris, A. Lagoyannis, A. Musumarra, N. G. Nicolis, C. Papachristodoulou, N. Patronis, G. Perdikakis, D. Pierroutsakou, D. Roubos, K. Rusek, A. Spyrou, and Ch. Zarkadas: The 6Li exclusive breakup on 28Si at 13 MeV. *Physics Letters B* 633 (2006) 691-695.
22. C. Papachristodoulou, A. Oikonomou, K. Ioannides, K. Gravani: A study of ancient pottery by means of X-ray fluorescence, multivariate statistics and mineralogical analysis. *Analytica Chimica Acta* 573-574 (2006) 347-353.
23. C. Papachristodoulou, K. Ioannides, S. Spathis: The effect of moisture content on radon diffusion through soil: assessment in laboratory and field experiments. *Health Physics* 92 (2007) 257-264.
24. A. Pakou, A. Musumarra, D. Pierroutsakou, N. Alamanos, P.A. Assimakopoulos, N. Divis, G. Doukelis, A. Gillibert, S. Harissopulos, G. Kalyva, M. Kokkoris, A. Lagoyannis, T.J. Mertzimekis, N. G. Nicolis, C. Papachristodoulou, G. Perdikakis, D. Roubos, K. Rusek, A. Spyrou, and Ch. Zarkadas: $6,7\text{Li}+28\text{Si}$ total reaction cross sections at near barrier energies. *Nuclear Physics A* 784 (2007) 13-24.
25. C. Papachristodoulou, D. Patiris, K. Ioannides: An X-ray fluorescence method for measuring the bulk etch rate of CR-39 nuclear track detectors. *Nuclear Instruments and Methods B* 264 (2007) 177-182.
26. A. Pakou, K. Rusek, N. Alamanos, X. Aslanoglou, S. Harissopulos, M. Kokkoris, A. Lagoyannis, T.J. Mertzimekis, A. Musumarra, N.G. Nicolis, C. Papachristodoulou, D. Pierroutsakou, D. Roubos: Strong transfer channels in the $\text{Li}-6+\text{Si}-28$ system at near-barrier energies. *Physical Review C* 76 (2007) 054601-054607.
27. K.Ioannides, D. Patiris, C. Papachristodoulou: Indoor radon concentrations in workplaces and dwellings in

- North-Western Greece. *Radioprotection* 44 (2009) 165-169.
28. C. Papachristodoulou, K. Gravani, A. Oikonomou, K. Ioannides: On the provenance and manufacture of red-slipped fine ware from ancient Cassope (NW Greece): evidence by X-ray analytical methods. *Journal of Archaeological Science* 37 (2010) 2146-2154.
 29. C. Papachristodoulou, D. Patiris, K. Ioannides: *Exposure to indoor radon and natural gamma radiation in public workplaces in North-Western Greece. Radiation Measurements* 45 (2010) 865-871.
 30. D. Gournis, C. Papachristodoulou, E. Maccallini, P. Rudolf, M.A. Karakassides, D.T. Karamanis, M.-H. Sage, T.T.M. Palstra, J.-F. Colomer, K.D. Papavasileiou, V.S. Melissas and N.-H. Gangas: A two-dimensional magnetic hybrid material based on intercalation of a cationic prussian blue analogue in montmorillonite nanoclay. *Journal of Colloid and Interface Science* 348 (2010) 393-401.
 31. D. Karadimos, R. Vlastou, K. Ioannides, P. Assimakopoulos, N. Tsagas, P. Pavlopoulos, D. Karamanis, C. Papachristodoulou, K. Stamoulis, V. Vlachoudis, P. Cennini, V. Ketlerov, V. Konovalov for the n_TOF collaboration: Analysis of the FIC detector data at the n_TOF facility. *Nuclear Instruments and Methods B* 268 (2010) 2556-2562.
 32. A.F. Nisbet, J. Brown, B.J. Howard, N.A. Beresford, H. Ollagnon, C. Turcanu, J. Camps, K. Andersson, A. Rantavaara, T. Ikäheimonen, T. Duranova, D. Oughton, G. Kirchner, C. Papachristodoulou, K. Ioannides, P. Kwakman: Decision aiding handbooks for managing contaminated food production systems, drinking water and inhabited areas in Europe. *Radioprotection* 45 (2010) S23-S37.
 33. I. Liritzis, K. Stamoulis, C. Papachristodoulou and K.G. Ioannides: A re-evaluation of radiation dose-rate conversion factors. *Mediterranean Archaeology & Archaeometry* 13 (2013) 1-15.
 34. K. Ioannides, K. Stamoulis, C. Papachristodoulou: Environmental radioactivity measurements in north-western Greece following the Fukushima nuclear accident. *Journal of Radioanalytical and Nuclear Chemistry* (2013) DOI 10.1007/s10967-013-2527-6.
 35. C. Papachristodoulou, K. Stamoulis, P. Tsakos, V. Vozikis, C. Papadopoulou, K. Ioannides: Liver concentrations of copper, zinc, iron and molybdenum in sheep and goats from northern Greece, determined by energy-dispersive X-ray fluorescence spectrometry. *Bulletin of Environmental Contamination and Toxicology* 94 (2015) 460-467.
 36. K. Ioannides, K. Stamoulis, C. Papachristodoulou, E. Tziamou, C. Markantonaki, I. Tsodoulos: Distribution of heavy metals in sediment cores of Lake Pamvotis (Greece): a pollution and potential risk assessment. *Environmental Monitoring and Assessment* 187 (2015) Article:4209.
 37. I. Tsodoulos, K. Stamoulis, R. Caputo, I. Koukouvelas, A. Chatzipetros, S. Pavlides, C. Gallousi, C. Papachristodoulou, K. Ioannides: Middle-Late Holocene earthquake history of the Gyroni Fault, Central Greece: Insight from optically stimulated luminescence (OSL) dating and paleoseismology. *Tectonophysics* 687 (2016) 14-27.
 38. A. Papadimitriou, I. Ketikidis, M.K. Stathopoulou, C.N. Banti, C. Papachristodoulou, L. Zoumpoulakis, S. Agathopoulos, G.V. Vagenas, S.K. Hadjikakou: Innovative material containing the natural product curcumin, with enhanced antimicrobial properties for active packaging. *Materials Science & Engineering C* 84 (2017) 118-122.
 39. I. Stamatopoulos, M. Roulia, K.A. Vallianatou, C. P. Raptopoulou, V. Psycharis, M. Carravetta, C. Papachristodoulou, E. Hey-Hawkins, I. D. Kostas, P. Kyritsis: Immobilization of the complexes [Pd{(Ph₂P)N(CH₂)₃Si(OCH₃)₃-P,P'}X₂] (X = Cl, Br) onto STx-1 montmorillonite: An investigation of their performance as homogeneous or heterogenized Suzuki-Miyaura catalysts. *ChemistrySelect* 2 (2017) 12051-12059.
 40. S. Lymperopoulou, Th. Lazarides, C. Papachristodoulou, C. Raptopoulou, V. Psycharis, J.C. Plakatouras: Synthesis, Structural Characterization, and Fluorescence of a Series of 1D Rare Earth Coordination Polymers with a Substituted Iminodiacetate Ligand. *Inorganica Chimica Acta* 472 (2018) 276-282.
 41. C. Papachristodoulou, M.-C. Tziamou, C. Papadopoulou, K. Ioannides: Determination of minerals in infant formulae by Energy Dispersive X-ray Fluorescence Spectrometry. *Journal of Food Composition and Analysis* 72 (2018) 39-47.

42. V. Karetsi, C. Banti, N. Kourkoumelis, C. Papachristodoulou, C. Stalikas, C. Raptopoulou, V. Psycharis, P. Zoumpoulakis, T. Mavromoustakos, I. Sainis, S. Hadjidakou: An efficient disinfectant, composite material {SLS@[Zn3(CitH)2]} as ingredient for development of sterilized and non infectious contact lens. *Antibiotics* 8 (2019) 213.
43. C. Papachristodoulou, K. Stamoulis, K. Ioannides: Temporal variation of soil gas radon associated with seismic activity: a case study in NW Greece. *Pure and Applied Geophysics* 177 (2020) 821-836.
44. I. Ketikidis, C. Banti, N. Kourkoumelis, C. Tsiafoulis, C. Papachristodoulou, A. Kalampounias, S. Hadjidakou: Conjugation of penicillin-G with silver(I) ions expands its antimicrobial activity, against Gram negative bacteria. *Antibiotics* 9 (2020) 25.
45. A. Rossos, C. Banti, A. Kalampounias, C. Papachristodoulou, K. Kordatos, P. Zoumpoulakis, Th. Mavromoustakos, N. Kourkoumelis, S.K. Hadjidakou: pHEMA@AGMNA-1: a novel material for the development of antibacterial contact lens. *Materials Science & Engineering C* 111 (2020) 110770.
46. M. Chrysouli, C. Banti, N. Kourkoumelis, E. Moushi, A. Tasiopoulos, A. Douvalis, C. Papachristodoulou, A. Hatzidimitriou, T. Bakas, S. Hadjidakou: Ciprofloxacin conjugated to diphenyltin(IV); A novel formulation with enhanced antimicrobial activity. *Dalton Transactions* 49 (2020) 11522.
47. M-E.K. Stathopoulou, N. Zoupanou, C.N. Banti, A. Douvalis, C. Papachristodoulou, K.D. Mourousis, G. Spyroulias, T. Mavromoustakos, S. Hadjidakou: Organotin derivatives of cholic acid induce apoptosis into breast cancer cells and interfere with mitochondrion; Synthesis, characterization and biological evaluation. *Steroids* 167 (2021) 108798.
48. A. Meretoudi, C.N. Banti, P.K. Raptis, C. Papachristodoulou, N. Kourkoumelis, A.A. Ikiades, P. Zoumpoulakis, Th. Mavromoustakos, S.K. Hadjidakou: Silver nanoparticles from oregano leaves extracts as antimicrobial components for non infected hydrogel contact lenses. *International Journal of Molecular Science* 22(7) (2021) 3539.
49. C.N. Banti, M. Kapetana, C. Papachristodoulou, C. Raptopoulou, V. Psycharis, P. Zoumpoulakis, Th. Mavromoustakos, S.K. Hadjidakou: Hydrogels containing water soluble conjugates of silver(I) ions with amino acids, metabolites or natural products for non infectious contact lenses. *Dalton Transactions* 50 (2021) 13712.
50. A.K. Rossos, C.N. Banti, P.K. Raptis, C. Papachristodoulou, I. Sainis, P. Zoumpoulakis, Th. Mavromoustakos, S.K. Hadjidakou: Silver nanoparticles using eucalyptus or willow extracts (AgNPs) as contact lens hydrogel components to reduce the risk of microbial infection. *Molecules* 26 (2021) 5022.
51. M. Kapetana, C. Banti, C. Papachristodoulou, V. Psycharis, C. Raptopoulou, S. Hadjidakou: Conjugation of triphenylantimony(V) with carvacrol against human breast cancer cells. *Journal of Biological Inorganic Chemistry* 27 (2022) 373.
52. P. Ziogas, A.P. Douvalis, A.B. Bourlinos, C. Papachristodoulou, N. Chalmpes, D. Gournis, M.A. Karakassides, A.E. Giannakas, C.E. Salmas: Isolation, Characterization and Hydrogen Sulfide H₂S Sorption Properties at Room Temperature of Magnetite Sludge from Radiator. *Journal of Nanotechnology Research* 4 (2022) 97.
53. P. Psathas, A. Zindrou, C. Papachristodoulou, N. Boukos, Y. Deligiannakis: In Tandem Control of La-Doping and CuO-Heterojunction on SrTiO₃ Perovskite by Double-Nozzle Flame Spray Pyrolysis: Selective H₂ vs. CH₄ Photocatalytic Production from H₂O/CH₃OH. *Nanomaterials* 13 (2023) 482.
54. C. Banti, C. Papatriantafyllopoulou, C. Papachristodoulou, A. Hatzidimitriou, S. Hadjidakou: New apoptosis inducers from the conjugation of anti-inflammatory drugs with pnicto-gens derivatives; A new strategy in the development of mitochondrial targeting chemo-therapeutics. *Journal of Medicinal Chemistry* 66 (2023) 4131-4149.
55. C. Banti, C. Papachristodoulou, M.P. Chrysouli, A. Douvalis, S. Hadjidakou: Controlled dual activity of an organometallic antibiotic through micelle formulation. *Journal of Organometallic Chemistry* 1012 (2024) 123130.