

## 1 PI CURRICULUM VITAE

PERSONAL INFORMATION	
SURNAME	KARAMANIS
NAME	DIMITRIOS
e-mail	DKARAMAN@UPATRAS.GR
TEL.	+30 6951005642

### CURRENT POSITION(S)

2019 -	<b>Professor on Alternative Energy Sources</b> Department of Environmental Engineering (merged with the new Department of Sustainable Agriculture), University of Patras, Greece
--------	---

### PREVIOUS POSITION(S)

2017 -2019	<b>Position Director of the MSc “Applications of Environmental Management and Protection”</b> Department of Environmental & Natural Resources Management, University of Patras, Greece
2014 -2019	<b>Associate Professor on Alternative Energy Sources</b> Department of Environmental & Natural Resources Management, University of Patras, Greece
2015-2016	<b>Academic Visitor (Sabbatical)</b> Institute of Energy Futures, Brunel University London, UK
2014-2016	<b>Instructor, MSc Programme "Environmental Design of Infrastructure Works"</b> Hellenic Open University. School of Science and Technology, Greece
2009-2014	<b>Assistant Professor on Alternative Energy Sources</b> Department of Environmental & Natural Resources Management, University of Western Greece (elected as University of Ioannina), Greece (tenure in April 2013)
2006-2009	<b>Adjunct Lecturer</b> Department of Environmental & Natural Resources Management, University of Ioannina, Greece
2002-2009	<b>Research Associate</b> Physics Department, University of Ioannina, Greece
2002-2008	<b>Adjunct Lecturer</b> Faculty of Veterinary Science, University of Thessaly, Greece
2001-2002	<b>Marie Curie Postdoctoral Return Fellow</b> Physics Department, University of Ioannina, Greece
1999-2001	<b>Marie Curie Postdoctoral Fellow</b> Centre Etudes Nucleaires de Bordeaux of IN2P3/CNRS France
1998-1999	<b>Postdoctoral Researcher</b> Nuclear Physics Laboratory, University of Ioannina, Greece
1998-1999	<b>Director of the Liaison and Technology Transfer Office</b> University of Ioannina, Greece
1990-1997	<b>Postgraduate research assistant</b> Nuclear Physics Laboratory, University of Ioannina, Greece

## EDUCATION

<b>1992-1997</b>	Department of Physics, University of Ioannina, Greece, PhD Doctor of Philosophy, “A study of radioactive pollutants binding by pillared layered clays”
<b>1990 -1992</b>	Department of Physics, University of Ioannina, Greece, Advanced Graduate Courses in Mathematical Physics, Advanced Quantum Physics, Statistical Mechanics, Experiments in Modern Physics, Nuclear Physics, Solid State, Chemical and High Energy Physics
<b>1986 -1990</b>	Department of Physics, University of Ioannina, Greece, Bachelor's degree in Physics

## PUBLICATIONS

*The most important publications and highlighted those related to the subject of the proposed research project*

- Creating climate-neutral urban environments: integrating solar energy technologies and nature-based solutions for sustainability and resilience, H.-Y. Liu\*, N. Skandalos, L. Braslina, V. Kapsalis, D. Karamanis\*, (2023) Solar (submitted)
- A critical review and assessment of rooftop PV electricity production, efficiency enhancement by novel combinations and building energy performance at different climatic conditions globally towards net zero energy buildings, Vasileios Kapsalis,\*, Carmen Maduta, Nikolaos Skandalos, Meng Wang, Sushant Suresh Bhuvad, Delia D’Agostino, Tao Ma, Udayraj, Danny Parker, Jinqing Peng, Dimitris Karamanis\* (2023) Renewable Sustainable Energy Reviews (submitted)
- Renewable Energy Sources. (Undergraduate textbook in Greek), Karamanis, D. (2022) Kallipos, Open Academic Books (available at <http://dx.doi.org/10.57713/kallipos-45>)
- Building PV integration according to regional climate conditions: BIPV regional adaptability extending Köppen-Geiger climate classification against urban and climate-related temperature increase, Skandalos, N.\*; Wang, M.; Kapsalis, V C; D’Agostino, D.; Parker, D.; Bhuvad, S.; Raj, Uday; Peng, J.; Karamanis, D.\* (2022) Renewable Sustainable Energy Reviews (accepted)
- A review on RES energy transition-climate change interaction effects, (2022) Environmental Science and Engineering, 2, pp. 44-50. DOI: 10.1007/978-981-19-1704-2\_4
- An optimization approach to photovoltaic building integration towards low energy buildings in different climate zones, Skandalos, N., Karamanis, D. (2021) Applied Energy, 295, art. no. 117017, DOI: 10.1016/j.apenergy.2021.117017

<ul style="list-style-type: none"> <li>▪ Overall energy assessment and integration optimization process of semitransparent PV glazing technologies, Skandalos, N., Karamanis, D., Peng, J., Yang, H., (2018) Progress in Photovoltaics: Research and Applications, 26 (7), pp. 473-490. DOI: 10.1002/pip.3008</li> </ul>
<ul style="list-style-type: none"> <li>▪ The effect of ZnO or TiO<sub>2</sub> loaded nanoparticles on the adsorption and photocatalytic performance of Cu-BTC and ZIF-8 MOFs, Ökte, A.N., Karamanis, D., Chalkia, E., Tuncel, D., (2017) Materials Chemistry and Physics, 187, pp. 5-10., DOI: 10.1016/j.matchemphys.2016.11.059</li> </ul>
<ul style="list-style-type: none"> <li>▪ Investigation of thermal performance of semi-transparent PV technologies, Skandalos, N., Karamanis, D., (2016) Energy and Buildings, 124, pp. 19-34. DOI: 10.1016/j.enbuild.2016.04.072</li> </ul>
<ul style="list-style-type: none"> <li>▪ Solar thermal energy storage and heat pumps with phase change materials, Kapsalis, V., Karamanis, D., (2016) Applied Thermal Engineering, 99, pp. 1212-1224. DOI: 10.1016/j.applthermaleng.2016.01.071</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron-induced fission cross section of Np 237 in the keV to MeV range at the CERN n-TOF facility, Diakaki, M. et al. (nTOF collaboration), (2016) Physical Review C, 93 (3), art. no. 034614, DOI: 10.1103/PhysRevC.93.034614</li> </ul>
<ul style="list-style-type: none"> <li>▪ Solar energy materials for glazing technologies, Gorgolis, G., Karamanis, D., (2016) Solar Energy Materials and Solar Cells, 144, pp. 559-578. DOI: 10.1016/j.solmat.2015.09.040</li> </ul>
<ul style="list-style-type: none"> <li>▪ On the effect of roof added photovoltaics on building's energy demand, Kapsalis, V., Karamanis, D., (2015) Energy and Buildings, 108, pp. 195-204. DOI: 10.1016/j.enbuild.2015.09.016</li> </ul>
<ul style="list-style-type: none"> <li>▪ A novel approach to measuring the solar reflectance of conventional and innovative building components, Krimpalis, S., Karamanis, D., (2015) Energy and Buildings, 97, pp. 137-145. DOI: 10.1016/j.enbuild.2015.04.003</li> </ul>
<ul style="list-style-type: none"> <li>▪ PV glazing technologies, Skandalos, N., Karamanis, D. (2015) Renewable and Sustainable Energy Reviews, 49, pp. 306-322. DOI: 10.1016/j.rser.2015.04.145</li> </ul>
<ul style="list-style-type: none"> <li>▪ Solar cooling with hydrophilic porous materials for reducing building cooling needs, Karamanis, D., (2015) Eco-efficient Materials for Mitigating Building Cooling Needs: Design, Properties and Applications, pp. 270-305., DOI: 10.1016/B978-1-78242-380-5.00010-8</li> </ul>
<ul style="list-style-type: none"> <li>▪ Offshore wind farms development in relation to environmental protected areas, Spiropoulou, I., Karamanis, D., Kehayias, G. (2015) Sustainable Cities and Society, 14 (1), pp. 305-312. DOI: 10.1016/j.scs.2014.05.006</li> </ul>
<ul style="list-style-type: none"> <li>▪ Progress in photovoltaic devices and systems, Yang, H., Shen, H., Xu, T., Karamanis, D., (2015) International Journal of Photoenergy, 2015, art. no. 926063, DOI: 10.1155/2015/926063</li> </ul>
<ul style="list-style-type: none"> <li>▪ Well-ordered nanoporous materials for low-temperature water phase changes and solar evaporative cooling, Karamanis, D., Kyritsi, E., Krimpalis, S., (2015) Solar Energy Materials and Solar Cells, 139, art. no. 7649, pp. 34-43. DOI: 10.1016/j.solmat.2015.03.013</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron-induced fission cross section of U 234 measured at the CERN n-TOF facility, Karadimos, D. et al. (nTOF collaboration), (2014) Physical Review C - Nuclear Physics, 89 (4), art. no. 044606, DOI: 10.1103/PhysRevC.89.044606</li> </ul>
<ul style="list-style-type: none"> <li>▪ Simulation of the cooling effect of the roof-added photovoltaic panels, Kapsalis, V.C., Vardoulakis, E., Karamanis, D. (2014) Advances in Building Energy Research, 8 (1), pp. 41-54. DOI: 10.1080/17512549.2014.890534</li> </ul>
<ul style="list-style-type: none"> <li>▪ Heat island phenomenon and cool roofs mitigation strategies in a small city of elevated temperatures, Vardoulakis, E., Karamanis, D., Mihalakakou, G., (2014) Advances in Building Energy Research, 8 (1), pp. 55-62., DOI: 10.1080/17512549.2014.890537</li> </ul>
<ul style="list-style-type: none"> <li>▪ Passive solar cooling with thermoresponsive nanocomposites, Karamanis, D., (2014) Proceedings of 2014 1st International Conference on Non-Conventional Energy: Search for Clean and Safe Energy, ICONCE 2014, art. no. 6808677, pp. 33-37. DOI: 10.1109/ICONCE.2014.6808677</li> </ul>
<ul style="list-style-type: none"> <li>▪ Dual functionality of TiO<sub>2</sub>-flyash nanocomposites: Water vapor adsorption and photocatalysis, Ökte, A.N., Karamanis, D., Tuncel, D., (2014) Catalysis Today, 230, pp. 205-213., DOI: 10.1016/j.cattod.2014.01.031</li> </ul>

<ul style="list-style-type: none"> <li>▪ Cooling roofs through low temperature solar-heat transformations in hydrophilic porous materials, Karamanis, D., Kyritsi, E., Krimpalis, S., Vardoulakis, E., Gorgolis, G., Kapsalis, V., Mihalakakou, G., Ökte, N., (2013) <i>Advances in Building Energy Research</i>, 7 (2), pp. 235-243. DOI: 10.1080/17512549.2013.865562</li> </ul>
<ul style="list-style-type: none"> <li>▪ Heat island effect in western greece: Results, statistical analysis and discussion, Vardoulakis, E., Karamanis, D., Mihalakakou, G. (2013) <i>Fresenius Environmental Bulletin</i>, 22 (7 A), pp. 2059-2062.</li> </ul>
<ul style="list-style-type: none"> <li>▪ A novel photoresponsive ZnO-flyash nanocomposite for environmental and energy applications, Ökte, A.N., Karamanis, D. (2013) <i>Applied Catalysis B: Environmental</i>, 142-143, pp. 538-552. DOI: 10.1016/j.apcatb.2013.05.045</li> </ul>
<ul style="list-style-type: none"> <li>▪ The urban heat island effect in a small Mediterranean city of high summer temperatures and cooling energy demands. Vardoulakis, E., Karamanis, D., Fotiadi, A., Mihalakakou, G., (2013) <i>Solar Energy</i>, 94, pp. 128-144. DOI: 10.1016/j.solener.2013.04.016</li> </ul>
<ul style="list-style-type: none"> <li>▪ Wind energy resources analysis of Western Greece coast in terms of sustainable environmental indicators and towards their community-based exploitation in South-East Europe, Karamanis, D. (2013) <i>Journal of Renewable and Sustainable Energy</i>, 5 (4), art. no. 041801, DOI: 10.1063/1.4812654</li> </ul>
<ul style="list-style-type: none"> <li>▪ Surface solar cooling through water vapor desorption from photo-responsive sepiolite nanocomposites, Karamanis, D., Vardoulakis, E., Kyritsi, E., Ökte, N., (2012) <i>Energy Conversion and Management</i>, 63, pp. 118-122. DOI: 10.1016/j.enconman.2012.01.035</li> </ul>
<ul style="list-style-type: none"> <li>▪ Measurement of resolved resonances of <math>^{232}\text{Th}(n,\gamma)</math> at the n-TOF facility at CERN, Gunsing, F. et al. (nTOF collaboration), (2012) <i>Physical Review C - Nuclear Physics</i>, 85 (6), art. no. 064601, DOI: 10.1103/PhysRevC.85.06460</li> </ul>
<ul style="list-style-type: none"> <li>▪ Measurement and resonance analysis of the <math>^{237}\text{Np}</math> neutron capture cross section, Guerrero, C. et al. (nTOF collaboration), (2012) <i>Physical Review C - Nuclear Physics</i>, 85 (4), art. no. 044616, DOI: 10.1103/PhysRevC.85.044616</li> </ul>
<ul style="list-style-type: none"> <li>▪ The effect of shading of building integrated photovoltaics on roof surface temperature and heat transfer in buildings, Vardoulakis, E., Karamanis, D., (2012) <i>Proceedings of the 25th International Conference on Efficiency, Cost, Optimization and Simulation of Energy Conversion Systems and Processes, ECOS 2012</i>, 7, pp. 273-280.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Application of zeolitic materials prepared from fly ash to water vapor adsorption for solar cooling, Karamanis, D., Vardoulakis, E., (2012) <i>Applied Energy</i>, 97, pp. 334-339. DOI: 10.1016/j.apenergy.2011.12.078</li> </ul>
<ul style="list-style-type: none"> <li>▪ Water vapor adsorption and photocatalytic pollutant degradation with <math>\text{TiO}_2</math>-sepiolite nanocomposites, Karamanis, D., Ökte, A.N., Vardoulakis, E., Vaimakis, T., (2011) <i>Applied Clay Science</i>, 53 (2), pp. 181-187. DOI: 10.1016/j.clay.2010.12.012</li> </ul>
<ul style="list-style-type: none"> <li>▪ Solar cooling with aluminium pillared clays, Vardoulakis, E., Karamanis, D., Assimakopoulos, M.N., Mihalakakou, G., (2011) <i>Solar Energy Materials and Solar Cells</i>, 95 (8), pp. 2363-2370. DOI: 10.1016/j.solmat.2011.04.007</li> </ul>
<ul style="list-style-type: none"> <li>▪ Assessment of tritium levels in rivers and precipitation in north-western Greece before the ITER operation, Stamoulis, K.C., Karamanis, D., Ioannides, K.G. (2011) <i>Fusion Engineering and Design</i>, 86 (2-3), pp. 206-213. DOI: 10.1016/j.fusengdes.2010.12.056</li> </ul>
<ul style="list-style-type: none"> <li>▪ Wind energy resources in the Ionian Sea, Karamanis, D., Tsabaris, C., Stamoulis, K., Georgopoulos, D. (2011) <i>Renewable Energy</i>, 36 (2), pp. 815-822. DOI: 10.1016/j.renene.2010.08.007</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron-induced fission cross-section of <math>^{233}\text{U}</math> in the energy range 0.5 &amp;lt; En &amp;lt; 20 MeV, Belloni, F. et al. (nTOF collaboration). (2011) <i>European Physical Journal A</i>, 47 (1), art. no. 2 DOI: 10.1140/epja/i2011-11002-y</li> </ul>
<ul style="list-style-type: none"> <li>▪ Moisture sorption properties of modified porous clays for roof evaporative cooling applications, Vardoulakis, E., Karamanis, D., Assimakopoulos, M.N., Boemi, S.N., Mihalakakou, G. (2011) <i>International Journal of Ventilation</i>, 10 (2), pp. 185-194. DOI: 10.1080/14733315.2011.11683947</li> </ul>

<ul style="list-style-type: none"> <li>▪ Management of moderate wind energy coastal resources, Karamanis, D., (2011) <i>Energy Conversion and Management</i>, 52 (7), pp. 2623-2628.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Analysis of the FIC detector data at the n-TOF facility, Karadimos, D., Vlastou, R., Ioannides, K., Assimakopoulos, P., Tsagas, N., Pavlopoulos, P., Karamanis, D., Papachristodoulou, C., Stamoulis, K., Vlachoudis, V., Cennini, P., Ketlerov, V., Konovalov, V. (2010) <i>Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms</i>, 268 (16), pp. 2556-2562. DOI: 10.1016/j.nimb.2010.05.006</li> </ul>
<ul style="list-style-type: none"> <li>▪ A two-dimensional magnetic hybrid material based on intercalation of a cationic Prussian blue analog in montmorillonite nanoclay, Gournis, D., Papachristodoulou, C., Maccallini, E., Rudolf, P., Karakassides, M.A., Karamanis, D.T., Sage, M.-H., Palstra, T.T.M., Colomer, J.-F., Papavasileiou, K.D., Melissas, V.S., Gangas, N.H. (2010) <i>Journal of Colloid and Interface Science</i>, 348 (2), pp. 393-401. DOI: 10.1016/j.jcis.2010.04.068</li> </ul>
<ul style="list-style-type: none"> <li>▪ Deconvolution of liquid scintillation alpha spectra of mixtures of uranium and radium isotopes, Stamoulis, K.C., Ioannides, K.G., Karamanis, D., (2010) <i>Analytica Chimica Acta</i>, 657 (2), pp. 108-115. DOI: 10.1016/j.aca.2009.10.034</li> </ul>
<ul style="list-style-type: none"> <li>▪ Environmental assessment of natural radionuclides and heavy metals in waters discharged from a lignite-fired power plant, Karamanis, D., Ioannides, K., Stamoulis, K. (2009) <i>Fuel</i>, 88 (10), pp. 2046-2052. DOI: 10.1016/j.fuel.2009.02.032</li> </ul>
<ul style="list-style-type: none"> <li>▪ Spatial and seasonal trends of natural radioactivity and heavy metals in river waters of Epirus, Macedonia and Thessalia, Karamanis, D., Stamoulis, K., Ioannides, K., Patiris, D. (2008) <i>Desalination</i>, 224 (1-3), pp. 250-260. DOI: 10.1016/j.desal.2007.07.002</li> </ul>
<ul style="list-style-type: none"> <li>▪ The decay of proton-rich nuclei in the mass <math>A = 36 - 56</math> region, Dossat, C. et al. (the CENBG collaboration), (2007) <i>Nuclear Physics A</i>, 792 (1-2), pp. 18-86. DOI: 10.1016/j.nuclphysa.2007.05.004</li> </ul>
<ul style="list-style-type: none"> <li>▪ Natural radionuclides and heavy metals in bottled water in Greece, Karamanis, D., Stamoulis, K., Ioannides, K.G. (2007) <i>Desalination</i>, 213 (1-3), pp. 90-97. DOI: 10.1016/j.desal.2006.03.604</li> </ul>
<ul style="list-style-type: none"> <li>▪ Rapid screening of <math>^{90}\text{Sr}</math> activity in water and milk samples using Cherenkov radiation, Stamoulis, K.C., Ioannides, K.G., Karamanis, D.T., Patiris, D.C., (2007) <i>Journal of Environmental Radioactivity</i>, 93 (3), pp. 144-156. DOI: 10.1016/j.jenvrad.2006.12.007</li> </ul>
<ul style="list-style-type: none"> <li>▪ Efficiency of aluminum-pillared montmorillonite on the removal of cesium and copper from aqueous solutions, Karamanis, D., Assimakopoulos, P.A. (2007) <i>Water Research</i>, 41 (9), pp. 1897-1906. DOI: 10.1016/j.watres.2007.01.053</li> </ul>
<ul style="list-style-type: none"> <li>▪ Determination of <math>^{226}\text{Ra}</math> in aqueous solutions via sorption on thin films and <math>\alpha</math>-spectrometry, Karamanis, D., Ioannides, K.G., Stamoulis, K.C., (2006) <i>Analytica Chimica Acta</i>, 573-574, pp. 319-327. DOI: 10.1016/j.aca.2006.03.024</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron capture cross section of <math>\text{Th}^{232}</math> measured at the n_TOF facility at CERN in the unresolved resonance region up to 1 MeV, Aerts, G. et al. (nTOF collaboration) (2006) <i>Physical Review C - Nuclear Physics</i>, 73 (5), art. no. 054610, DOI: 10.1103/PhysRevC.73.054610</li> </ul>
<ul style="list-style-type: none"> <li>▪ Measurement of the <math>\text{Am}^{241}(n,2n)</math> reaction cross section using the activation method, Perdikakis, G., Papadopoulos, C.T., Vlastou, R., Lagoyannis, A., Spyrou, A., Kokkoris, M., Galanopoulos, S., Patronis, N., Karamanis, D., Zarkadas, Ch., Kalyva, G., Kossionides, S., (2006) <i>Physical Review C - Nuclear Physics</i>, 73 (6), art. no. 067601, DOI: 10.1103/PhysRevC.73.067601</li> </ul>
<ul style="list-style-type: none"> <li>▪ Determination of the <math>^{233}\text{Pa}(n,f)</math> reaction cross section from 0.5 to 10 MeV neutron energy using the transfer reaction <math>^{232}\text{Th}(^3\text{He},p)^{234}\text{Pa}</math>, Petit, M. et al., (2004) <i>Nuclear Physics A</i>, 735 (3-4), pp. 345-371. DOI: 10.1016/j.nuclphysa.2004.02.017</li> </ul>
<ul style="list-style-type: none"> <li>▪ Gamma spectroscopy using two Clover detectors in close geometry, Dababneh, S., et al., (2004) <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i>, 517 (1-3), pp. 230-239. DOI: 10.1016/j.nima.2003.09.054</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron capture studies on unstable [Formula Presented] for nucleosynthesis and transmutation, Patronis, N., Dababneh, S., Assimakopoulos, P.A., Gallino, R., Heil, M., Käppeler, F., Karamanis, D.,</li> </ul>

<p>Koehler, P.E., Mengoni, A., Plag, R. (2004) <i>Physical Review C - Nuclear Physics</i>, 69 (2), p. 10. DOI: 10.1103/PhysRevC.69.025803</p>
<ul style="list-style-type: none"> <li>▪ Neutron capture studies on unstable <sup>135</sup>Cs for nucleosynthesis and transmutation, Patronis, N., Dababneh, S., Assimakopoulos, P.A., Gallino, R., Heil, M., Käppeler, F., Karamanis, D., Koehler, P.E., Mengoni, A., Plag, R. (2004) <i>Physical Review C - Nuclear Physics</i>, 69 (2), art. no. 025803, pp. 258031-2580310.</li> </ul>
<ul style="list-style-type: none"> <li>▪ Efficiency simulation of HPGe and Si(Li) detectors in <math>\gamma</math>- and X-ray spectroscopy, Karamanis, D. (2003) <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i>, 505 (1-2), pp. 282-285, DOI: 10.1016/S0168-9002(03)01069-6</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron cross-section measurements in the Th-U cycle by the activation method, Karamanis, D., et al. (2003) <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i>, 505 (1-2), pp. 381-384. DOI: 10.1016/S0168-9002(03)01102-1</li> </ul>
<ul style="list-style-type: none"> <li>▪ Soil gas radon: A tool for exploring active fault zones, Ioannides, K., Papachristodoulou, C., Stamoulis, K., Karamanis, D., Pavlides, S., Chatzipetros, A., Karakala, E. (2003) <i>Applied Radiation and Isotopes</i>, 59 (2-3), pp. 205-213. DOI: 10.1016/S0969-8043(03)00164-7</li> </ul>
<ul style="list-style-type: none"> <li>▪ A study on the utilization of tritide titanium targets for monoenergetic neutron production, Karamanis, D. (2002) <i>Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms</i>, 195 (3-4), pp. 350-357. DOI: 10.1016/S0168-583X(02)01125-4</li> </ul>
<ul style="list-style-type: none"> <li>▪ Experimental and simulated efficiency of a HPGe detector with point-like and extended sources, Karamanis, D., Lacoste, V., Andriamonje, S., Barreau, G., Petit, M. (2002) <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i>, 487 (3), pp. 477-487. DOI: 10.1016/S0168-9002(02)00393-5</li> </ul>
<ul style="list-style-type: none"> <li>▪ Experimental studies of a Micromegas neutron detector, Andriamonje, S., et al., (2002) <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i>, 481 (1-3), pp. 120-129. DOI: 10.1016/S0168-9002(01)01246-3</li> </ul>
<ul style="list-style-type: none"> <li>▪ PIGE and XRF analysis of a nano-composite pillared layered clay material for nuclear waste applications, Karamanis, D.T., Aslanoglou, X.A., Assimakopoulos, P.A., Gangas, N.H. (2001) <i>Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms</i>, 181 (1-4), pp. 616-621. DOI: 10.1016/S0168-583X(01)00531-6</li> </ul>
<ul style="list-style-type: none"> <li>▪ Neutron radiative capture cross section of <sup>232</sup>Th in the energy range from 0.06 to 2 MeV, Karamanis, D. et al. (2001) <i>Nuclear Science and Engineering</i>, 139 (3), pp. 282-292. DOI: 10.13182/NSE01-A2238</li> </ul>
<ul style="list-style-type: none"> <li>▪ An aluminum pillared montmorillonite with fast uptake of strontium and cesium from aqueous solutions, Karamanis, D.T., Aslanoglou, X.A., Assimakopoulos, P.A., Gangas, N.H., Pakou, A.A., Papayannakos, N.G., (1997) <i>Clays and Clay Minerals</i>, 45 (5), pp. 709-717. DOI: 10.1346/CCMN.1997.0450509</li> </ul>
<ul style="list-style-type: none"> <li>▪ Time dependence of the transfer factor of <sup>137</sup>Cs from surface soil to plants, Assimakopoulos, P.A., Ioannides, K.G., Karamanis, D.T., Pakou, A.A., Stamoulis, K.C., Vayonakis, A., Veltsos, E. (1993) <i>Science of the Total Environment</i>, The, 138 (1-3), pp. 309-315. DOI: 10.1016/0048-9697(93)90424-5</li> </ul>
<ul style="list-style-type: none"> <li>▪ Radiocaesium transfer to sheep's milk as a result of soil ingestion, Assimakopoulos, P.A., Ioannides, K.G., Karamanis, D.T., Pakou, A.A., Stamoulis, K.C., Mantzios, A.S., Nikolaou, E. (1993) <i>Science of the Total Environment</i>, The, 136 (1-2), pp. 13-24. DOI: 10.1016/0048-9697(93)90293-F</li> </ul>

## CONFERENCES/WORKSHOPS/etc

*National, international scientific conferences, workshops, summer schools, educational seminars, etc. in chronological order, starting with the most recent. (recent and representative)*

- 11<sup>th</sup> International Conference on Renewable Energy Systems (ECRES 2023), “Building Integrated Photovoltaics: From sufficiency to sharing towards carbon neutral cities”, 18-20 May, Riga Latvia (invited keynote)
- 5th International Conference on Smart Grid and Green Energy (SGGE 2023), “Expansion of BIPV” 24-26 February, Hanoi Vietnam (invited keynote)
- 3rd International Conference on Environmental Design (ICED 2022), “The effect of local climatic conditions on the building integration of photovoltaics”, 22-23 October, Athens, Greece,
- 6th Asia Conference on Environment and Sustainable Development (ACESD 2021). “A review on RES energy transition-climate change interaction effects” 6-8 November, Virtual (presenter)
- 9th Global Conference on Global Warming (GCGW 2021), “RES-climate change interaction: current knowledge and research needs”, 1-4 August (virtual) (presenter)
- International Conference on Advanced Technologies for Mitigation Control of Indoor Environment (ICAT-MCIE 2017), “Solar Energy Technologies for the Sustainable Built Environment”, Nov 4-6, Zhuzhou, China (invited keynote)
- Nearly zero energy building retrofit, Professional Training Short Course (MEnS program), Integration of Renewables – European Approach, 29 February 2016, Brunel University, UK (invited lecture)
- 1st International Conference on Non-Conventional Energy (ICONCE 2014), “Passive solar cooling with thermoresponsive nanocomposites”, 14-17 January, Kalyani, India (invited)
- Erasmus IP and the 2nd European Workshop on Renewable Energy Systems,
- 12th International Conference on Sustainable Energy Technologies (SET 2013), “Building integrated solar cooling: From natural porous materials to solar-responsive multifunctional nano-composites”, 26-29 August, Hong Kong (presenter)
- IAEA/Argonne Regional Workshop on Element 3: Project Planning and Management for Decommissioning and Environmental Remediation, 3-7 June 2013, Argonne National Laboratory, USA (invited)
- 10th International Conference on Sustainable Energy Technologies (SET 2011), “Surface solar cooling with photoresponsive nanocomposites”, 4-7th September, Istanbul, Turkey (presenter)
- 4th National Conference on RES implementation (RENES 2010), “Wind energy in Ionian sea”, 10-12 May, Athens (in Greek) (presenter)
- 1st European Energy Conference: A new forum for energy research, (E2C-2010) “Study of modified porous clays as application materials for the evaporative cooling of buildings”, 20-24 April, Barcelona (presenter)
- International Advanced Workshop on Information and Communication Technologies for Sustainable Agri-production and Environment (AWICTSAE 2008) “The ECODONET project: Development of a model Web based virtual observatory of Acherontas, Kalamas and Torre Guaceto ecosystems and its application as a mobile exhibit and permanent environmental kiosk towards public awareness and sustainable development of coastal ecosystems”, 22-23 May, Alexandroupolis Greece
- 6th Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation, (OECD-NEA 2000),” Neutron radiative capture cross section of <sup>232</sup>Th in the energy range from 0.06 to 2 MeV”, 11-13 December, Madrid, Spain
- 2nd Workshop on the Long-Term Follow-up of the Chernobyl Disaster ( UICC-IARC-HCS 1995), “Application of pillared layered clays as radiocaesium and radiostrontium binders and their use as radiocontamination countermeasures”, 27-29 November, Athens, Greece

<b>MEMBERSHIPS &amp; REVIEWING ACTIVITIES</b>	
<b>2022 –</b>	Invited expert of Research Council of Lithuania, invited expert of Slovak Accreditation Agency for Higher Education
<b>2000 –</b>	Evaluator, EU, EU-Partnerships, EIT-HEI, ERANETs, National Research Councils of European Countries, Chile and KAUST
<b>2000 –</b>	Reviewer, Book proposals, International Conferences, Chapters and Books (International Conference on Applied Energy 2011, Perugia, Italy, World Renewable Energy Congress 2011, Linköping, Sweden, SEB-14, International Conference on Sustainability in Energy and Buildings, Cardiff, Wales, International Conference on Non-Conventional Energy 2014, Kalyani etc.)
<b>1997 –</b>	Reviewer, > 100 Scientific Journals (Scientific Reports, Solar Energy Advances, Applied Physics Reviews, Energy & Buildings (regular >30), Renewable & Sustainable Energy Reviews (regular >10), Renewable Energy, Solar Energy (regular), Applied Energy (regular), Wind Engineering and Industrial Aerodynamics, Journal Energy Engineering, Energy, Energies, Environmental Progress & Sustainable Energy, Energy Conversion & Management, Energy Policy, Sustainability, Building & Environment, Environmental Science & Technology, International Journal of Sustainable Energy, Renewable Power Generation, ACS Applied Materials & Interfaces, Science of Total Environment, Heliyon, Applied Sciences, IEEE Transactions on Nuclear Science etc.)

<b>TEACHING ACTIVITIES</b>	
<b>2006 -</b>	Renewable energy sources, Undergraduate course, University of Patras (Ioannina/Western Greece)
<b>2016 -</b>	Environmental Physics, Undergraduate course, University of Patras
<b>2009 -</b>	Applications of RES, Undergraduate course, University of Patras (Ioannina/Western Greece)
<b>2019 -</b>	Applications of Energy Savings, Undergraduate course, University of Patras
<b>2015-2017</b>	Green Environmental Technologies, Graduate Course, University of Patras
<b>2016-2017</b>	Special Topics of Environment Technologies, Graduate Course, University of Patras
<b>2014-2016</b>	Infrastructure project design and environmental protection, Graduate Course, Hellenic Open University
<b>2002-2008</b>	Physics, Undergraduate Course, University of Thessaly
<b>2003-2008</b>	Informatics, Undergraduate Course, University of Thessaly
<b>2003-2006</b>	Renewable energy sources, Undergraduate Course, Technological Institute of Epirus
<b>2003-2005</b>	Acoustics, Undergraduate Course, Technological Institute of Epirus
<b>2003-2005</b>	Physics, Undergraduate Course, Technological Institute of Epirus

<b>SUPERVISION OF GRADUATE STUDENTS &amp; ADVISOR POSTDOCTORAL FELLOWS</b>	
<b>2012 - 2015</b>	2 Postdocs, University of Patras
<b>2009 - 2017</b>	4 PhD Students, University of Patras
<b>2013 - 2018</b>	11 Master Students, Hellenic Open University (10) /University of Patras (1)



<b>FELLOWSHIPS and AWARDS</b>	
<b>2008</b>	Award Top Reviewer of the Year for the “Analytica Chimica Acta” Journal
<b>2008</b>	Selection for appointment (P3 level) in the Preparation Commission for the Comprehensive nuclear-test-ban treaty Organization (CTBTO) of the United Nations (UN) at the International Centre of Vienna, Austria
<b>2005-2006</b>	Research Fellowship, Empirikion Foundation
<b>2002</b>	Grant from the National Science Foundation, US
<b>2001-2002</b>	Marie Curie Postdoctoral Research Return Grant of the European Union
<b>1999-2001</b>	Marie Curie Postdoctoral Research Grant of the European Union
<b>2003-2004</b>	Postdoctoral Research Grant, State Scholarships Foundation, University of Ioannina
<b>1992-1994</b>	Grant for postgraduate studies from “Georgios Stavrou” Foundation
<b>1987-1990</b>	Grant for undergraduate studies from the Hellenic Ministry of Education
<b>1986</b>	Award and grant from the Hellenic Ministry of Education for the results in the Annual Panhellenic Qualification Examination

## **RESEARCH GRANTS**

*Indicative research projects (international or national)*

<b>Project Title</b>	<b>Funding source</b>	<b>Period</b>	<b>Role of the PI</b>
Building integrated solar cooling of windows and open spaces with innovative nanocomposites	Hellenic General Secretariat of Research & Technology	2012-2015	Scientific Responsible(PI)
Novel solar responsive semiconducting/porous nanocomposites for the reduction of chemical and thermal urban pollution, GSRT-Greece-Turkey scientific research cooperation	Hellenic General Secretariat of Research & Technology	2014-2015	Scientific Responsible(PI)
Pollutants degradation and evaporative surface cooling with the use of the environmental technology of innovative photo-responsive material, GSRT-Greece-Turkey scientific research cooperation	Hellenic General Secretariat of Research & Technology	2011-2013	Scientific Responsible(PI)
Study of photoresponsive materials and passive cooling techniques for the mitigation of the urban heat island phenomenon and energy savings	ESPA-Hrakteitos II Programme	2010-2013	Scientific Responsible(PI)
Ash as a Material of Passive Cooling of Buildings and Open-Air Areas	John S. Latsis Public benefic Foundation	2010	Scientific Responsible (PI)
Ecodonet: Development of a model Web-based virtual observatory of Acherontas, Kalamas and Torre Guaceto ecosystems and its application as a mobile exhibition and permanent information	Interreg III Greece-Italy	2006-2008	Contract Coordinator

kiosk for public awareness and sustainable development of coastal ecosystems			
--	--	--	--

## 2 PI SCIENTIFIC ACHIEVEMENTS

### 1. Publications

- *Creating climate-neutral urban environments: integrating solar energy technologies and nature-based solutions for sustainability and resilience*, H.-Y. Liu\*, N. Skandalos, L. Braslina, V. Kapsalis, D. Karamanis\*, (2023) *Solar* (submitted)

- *Building PV integration according to regional climate conditions: BIPV regional adaptability extending Köppen-Geiger climate classification against urban and climate-related temperature increase*, (2022) *Renewable Sustainable Energy Reviews* (accepted)

- *Investigation of thermal performance of semi-transparent PV technologies*, (2016) *Energy and Buildings*, 124, pp. 19-34.

- *On the effect of roof added photovoltaics on building's energy demand*, (2015) *Energy and Buildings*, 108, pp. 195-204.

- *A novel approach to measuring the solar reflectance of conventional and innovative building components* (2015) *Energy and Buildings*, 97, pp. 137-145.

- *Solar cooling with hydrophilic porous materials for reducing building cooling needs* (2015) *Eco-efficient Materials for Mitigating Building Cooling Needs: Design, Properties and Applications*, pp. 270-305

- *Well-ordered nanoporous materials for low-temperature water phase changes and solar evaporative cooling* (2015) *D Karamanis, E Kyritsi, S Krimpalis, Solar Energy Materials and Solar Cells*, 139, 39-43.

### 2. Research monographs

- *Renewable Energy Sources*. (2022) Kallipos, Open Acad Books (<http://dx.doi.org/10.57713/kallipos-45>)

### 3. Granted patents

- *Passive cooling of glazings with hydrophilic transparent materials* (OVI 3374-Gr)

### 4. Invited presentations to international conferences

- International Conference on Advanced Technologies for Mitigation Control of Indoor Environment (ICAT-MCIE 2017), “Solar Energy Technologies for the Sustainable Built Environment”, Nov 4-6, Zhuzhou, China

- 1st International Conference on Non-Conventional Energy (ICONCE 2014), “Passive solar cooling with thermoresponsive nanocomposites”, 14-17 January, Kalyani, India (<https://ieeexplore.ieee.org/abstract/document/6808677> cited by WO2017190989, US20190119541, US20190144338, US11248151 (BASF SE)

### 5. Organization of international conferences

- Conference Program Chairs, 5th International Conference on Smart Grid and Green Energy (SGGE 2023), “Expansion of BIPV” 24-26 February, Hanoi Vietnam, <http://www.sgge.org/com.html>