



Dimitrios Papoulis

Associate Professor
in "Mineral Deposits focusing on Clays and Clay Minerals"
Short CV



Personal Information

Orcid ID: orcid.org/0000-0003-1734-4726
Telephone: +30 2610 99 6159
E-mail: Papoulis@upatras.gr
Affiliation: Department of Geology, University of Patras,
Greece GR-26504 Rio – Patras, Greece

Education

- 2003** **Ph.D. in Geology** at the Department of Geology of the University of Patras, Greece. Thesis entitled: "Mineralogy, genesis and properties of kaolins of Leucogia, Drama and Kos Island Greece" 289 pages. <http://thesis.ekt.gr/thesisBookReader/id/14366#page/1/mode/2up>
- 1997** **Degree in Geology** (Ptychion - 4 years study course) at the Department of Geology of the University of Patras, Greece.

Fellowships - Awards

- 2009** **6 months sabbatical** at Pennsylvania State University (USA) under the guidance of Distinguished Professor Sridhar Komarneni.
- 1998-2002** **Postgraduate Scholarship** for Doctorate thesis: IKY.

Professional experience

- 2016-** **Associate Professor** in "Mineral deposits, focusing on Clays and Clay Minerals" at the Department of Geology, University of Patras, Greece.
- 2011-2016** **Assistant Professor** in "Mineral deposits, focusing on Clays and Clay Minerals" at the Department of Geology, University of Patras, Greece (tenured in June 2017).
- 2005-2011** **Lecturer** in "Mineral deposits, focusing on Clays and Clay Minerals" at the Department of Geology, University of Patras, Greece.

Teaching experience

Modules taught at the undergraduate course (Dept. of Geology, University of Patras, Greece):

- *Earth Materials I: The structure of the crystals of minerals and mineral properties (2005-2018) (from 2018 renamed to Mineralogy I)*
- *Earth Materials II: Crystal chemistry and Mineral Classification (2005-2018) (from 2019 renamed to Mineralogy II)*
- *Clay minerals and Environmental applications (2005-to date)*
- *Computer applications in Earth Sciences (2005-to date)*
- *Nanogeoscience (2011-to date)*
- *Field trip of the 4th year of Geology students study on Smectite and Palygorskite deposits in Grevena area (2007-to date)*

Modules taught at the undergraduate course (Dept. of Material Science, University of Patras, Greece):

- *Geology (2011-to date)*

Modules taught at the undergraduate course (Dept. of Civil Engineering, Polytechnic School of Patras, Greece):

- *Geology (2018-to date)*

Modules taught at the postgraduate course (Dept. of Geology, University of Patras, Greece):

- *Uses of earth materials in environmental problems (2011-to date)*
- *Advanced topics in Mineralogy (2011-to date)*
- *Clays and Environment (2011 to date)*

Modules taught at the postgraduate course (Dept. of Pharmacy, University of Patras, Greece):

- *Components of Cosmetic Products (2018-to date)*

Books and Mobile phone applications

- *D. Papoulis, P. Lampropoulou. 2016. Mineralogy: Systematic classification of Minerals. Disigma Publications. 165 pages.*
- *Co-creator of Mineralogical mobile phone application MineralMicr*

Invited Speaker in International Conferences

2011 *PAPOULIS. D. 2011. Clay-based nanocomposites: Possibilities and Limitations. AIP Conference Proceedings, 1450-1453. Invited lecture.*

Chairman/Convener in Sections of International Conferences

2018 *EGU 2018 (European Geoscience Union, Vienna, Austria, 08/04/2018-13/04/2018. Topic: “Micro- and nanoscale Geoscience.*

2017 *16th International Clay Conference, Granada 17/07/2016-21/07/2017. Drug delivery systems based on layered materials, Also Convener.*

2014 *Dust 2014. in: Castellaneta Marina, 01/06/2014-06/06/2014. Topic: “Photocatalytic Decomposition of Pollutants found in Atmospheric Dust”, Also Convener.*

2011 *GEOMED 2011 4TH International Conference on MEDICAL GEOLOGY, Bari Italy 20/09/2011-25/09/2011. Topic: “Biopolymer – Clay Nanocomposites for Medicinal Uses”, Also Convener.*

2011 *PAPOULIS. D. 2011. Clay-based nanocomposites: Possibilities and Limitations. AIP Conference Proceedings, 1450-1453. Invited lecture.*

2009 *XIV International Clay Conference, Italy 2009, Castellaneta Marina, 14/06/2009-20/06/2009. Topic: “Clay Minerals and Fluid Flow Through Faults”, Also Convener.*

Scientific Supervisor in research projects

- *“XRD qualitative and quantitative determination of mineral phases”. Funded by: Kozani Mining. (2018)*
- *914-BET-2013 (IABET): Development of a new stone wool product with special requirements and low iron and Nickel content using Aluminum byproducts (ALUFLUX), Subcontractor.*
- *Scientific supervisor of: Qualitative and semi-quantitative mineralogical characterization of dust samples of ELKEME (EAKEME) (2014).*
- *INDOOR ECOPAVING: Development and manufacturing of a new innovative nanotechnology-based decontaminant construction material for indoor building. FP7 LEAD ERA Action. (2012), Subcontractor. Funded by: European Union.*
- *Scientific supervisor of “Karatheodori 2007-2010”. «Interactions of inorganic and organic pollutants with clay liners in Sanitary Landfills» Funded by: the University of Patras, Greece.*

Project evaluator in research projects of foreign countries

- *Project evaluator for the National Center of Science and Technology Evaluation, Ministry of Education and Science, Astana, Republic of Kazakhstan.*

Summary of Scientific Production and Impact

- *h-index: 13 (Web of Science®, Scopus).*
- *Publication in SCI Journals – Papers: 34*
- *Publication in non SCI Journals – Papers: 2*
- *Publications in Book chapters - 5*
- *Other Publications – Conference Proceedings: 22*
- *Abstracts in conferences and workshops: 23*
- *Total number of citations (self-citations excluded): 419 (Clarivate Analytics, Scopus)*
- *Reviewer statistics (Publons): 100< reviews; 30 Journals*

Selected Publications

A. In journals (SCI)

- **Papoulis, D.** 2019. Halloysite based nanocomposites and photocatalysis: A Review. *Applied Clay Science*. 168, 164-174.
- **Papoulis, D.**, Tzortzakaki, O., Avramidis, P., Mentis, P., Lampropoulou, P., Iliopoulos, G. 2018. Mineralogical and textural characteristics of nest building geomaterials used by three sympatric mud-nesting hirundine species. *Scientific Reports* 8(1),11050.
- **Papoulis, D.**, Panagiotaras, D., Tsigrou, P., Christoforidis, K. C., Petit, C., Apostolopoulou, A., Stathatos, E., Komarneni, S., Koukouvelas, I. 2018. Halloysite and sepiolite –TiO₂ nanocomposites: Synthesis characterization and photocatalytic activity in three aquatic wastes. *Materials Science in Semiconductor Processing*. 85, pp. 1-8.
- Christoforidis, K.C., Melchionna, M., Montini, T., **Papoulis, D.**, Stathatos, E., Zafeiratos, S., Kordouli E., Fornasiero P. 2016. Solar and visible light photocatalytic enhancement of halloysite nanotubes/g-C₃N₄ heteroarchitectures. *RSC Advances* 6 (89), 86617-86626.
- Ifandi, E. Tsikouras, B., **Papoulis, D.**, Hatzipanagiotou, K., Antonelou, A. 2015. A new microenvironment for the formation of clay minerals: the example of authigenic halloysite-7Å and gibbsite in a stalactite from Agios Georgios Cave Kilkis, north Greece. *International Journal of Speleology*. 44,3, 327-340.
- **Papoulis, D.**, Komarneni, S., Panagiotaras, D. (2014). Geochemistry of halloysite-7Å formation from plagioclase in trachyandesite rocks from Limnos island, Greece. *Clay Minerals*, 49, 75-89.
- **Papoulis, D.**, Komarneni, S., Panagiotaras, D., Stathatos, E., Christoforidis, K.C., Fernandez-Garcia, M., Huihui Li, Shu Yin, Sato, T., Katsuki, H. (2014). Three-phase nanocomposites of two nanoclays and TiO₂: Synthesis, characterization and photocatalytic activities. *Applied Catalysis B: Environmental*, 147, 526-533.
- **Papoulis, D.**, Komarneni, S., Panagiotaras, D., Stathatos, E., Toli, D., Christoforidis, K.C., Fernandez-Garcia, M., Huihui Li, Shu Yin, Sato, T., Katsuki, H. (2013). Halloysite–TiO₂ nanocomposites: synthesis, characterization and photocatalytic activity. *Applied Catalysis B: Environmental*, 132-133, 416-422.
- Avramidis, P., Samiotis, A., Kalimani, E., **Papoulis, D.**, Lampropoulou, P., Bekiari, V. (2013). Sediment characteristics and water physicochemical parameters of the Lysimachia Lake, Western Greece. *Environmental Earth Science*. 70, 383-392.
- Stathatos, E., **Papoulis, D.**, Aggelopoulos, C.A., Panagiotaras, D. and Nikolopoulou, A. 2012. TiO₂/palygorskite composite nanocrystalline films prepared by surfactant templating route: Synergistic effect to the photocatalytic degradation of an azo-dye in water. *Journal of Hazardous Materials*, 211-212, 68-76.
- Vasiliadou, I., **Papoulis, D.**, Chrysikopoulos, C., Panagiotaras, D., Karakosta, E., Fardis, M., and Papavassiliou, G. 2011. Attachment of *Pseudomonas putida* on different structured kaolinite minerals: A combined ATR-FTIR and ¹H NMR study. *Colloids and Surfaces B: Biointerfaces*, 84, 354–359
- **Papoulis, D.**, Komarneni, S., Nikolopoulou, A., Tsolis-Katagas, P., Panagiotaras, D., Kacandes, G.H., Zhang, P., Yin, S., Sato, T. and Katsuki, H. 2010. Palygorskite– and Halloysite–TiO₂ nanocomposites: Synthesis and photocatalytic activity. *Applied Clay Science*. 50, 118-124.
- Koukouvelas, I. and **Papoulis, D.** 2009. Fluid involvement in the Helike normal Fault, Gulf of Corinth, Greece. *Journal of Structural Geology*. 31, 237-250.
- **Papoulis, D.**, Tsolis-Katagas, P., Kalampounias G.A. and Tsikouras, B. 2009. Progressive formation of halloysite from the hydrothermal alteration of biotite and the formation mechanisms of anatase in altered volcanic rocks from Limnos Island, Northeast Aegean Sea, Greece. *Clays and Clay Minerals*. 57, 5, 567-578.
- **Papoulis, D.** and Tsolis-Katagas, P. 2008. Formation of alteration zones and kaolin genesis, Limnos Island, Northeast Aegean Sea, Greece. *Clay Minerals*, 43, 631-646.
- Panagopoulos, G., Lambrakis, N., Katagas, C., **Papoulis, D.** and Tsolis-Katagas, P. 2005. Water-rock interaction induced by contaminated groundwater in a karst aquifer, Greece. *Environmental Geology*. 49, 2, 300-313.
- **Papoulis, D.**, Tsolis-Katagas, P. and Katagas, C. 2004. Progressive stages in the formation of kaolinite from halloysite in the weathering of plagioclase. *Clays and Clay Minerals*. 52, 271-285.

B. In Books-Monographs (as articles or chapters)

- Panagiotaras, D., **Papoulis, D.**, Stathatos, E. (2015). Geochemistry of Arsenic and Toxic Response. Chapter 4, pages 79-109, in *Arsenic Toxicity: Prevention and Treatment*. Editor: Narayan Chakrabarty, CRC press, Taylor & Francis, publishers.

- Stathatos, E., **Papoulis, D.**, Panagiotaras, D. (2014). Stabilized TiO₂ nanoparticles on clay minerals for air and water treatment. In: *Advanced Oxidation Technologies – Sustainable solutions for environmental treatments*. Editors: Marta I. Litter, Roberto Candal & J. Martín Meichtry. CRC Press/Balkema. 313-325.
- Panagiotaras, D., Panagopoulos, G., **Papoulis, D.**, Avramidis, P. (2012). Arsenic Geochemistry in Groundwater System. In *Geochemistry*. INTECH Publishers. ISBN: 978-953-308-2-4. 27-38.
- **Papoulis, D.**, Panagiotaras, D., Panagopoulos, G. (2012). Arsenic: Environmental Impact Reduction Using Natural and Modified Adsorbents. In *Arsenic: Sources, Environmental Impact, Toxicity and Human Health - A Medical Geology Perspective*. NOVA Publishers. ISBN: 978-1-62081-320-1. 289-303.

C. In International Conferences

- **Papoulis, D.**, Lampropoulou, P. 2017. MineralMicr a new mineralogical mobile phone application. *SGEM 17* (54) 113-120.
- Nikolakopoulos, K.G., **Papoulis, D.** 2016. A preliminary comparison between Landsat-8 OLI and Sentinel-2 MSI for geological applications. European Space Agency, (Special Publication) ESA SP SP-740.
- Lampropoulou, P. **Papoulis, D.** Metaxa, E. Tsikouras, B. Hatzipanagioutou, K. Tzevelekou, Th. Karageorgis A. 2016. Assessment of the quality of metamorphic and igneous rocks from Terpni (Serres, North Greece) for their use as raw materials in the production of stonewool, in *Proceedings of the 14th Intern. Conference, Bulletin of the Geological Society of Greece*, vol. XLVIII, 2016.
- **Papoulis, D.**, Romiou, D., Kokkalas, S., Lampropoulou, P. (2013). Clay minerals from the Arkitsa fault gauge zone, in central Greece, and implications for fluid flow. *13th International Congress of the Geological Society of Greece*, Chania. 2, 616-624.
- Koutsopoulou, E., Tsolis-Katagas, P. and **Papoulis, D.** 2010. Heavy metals in stream sediments affected by a landfill and associated impact on groundwater quality. *12th International Congress of the Geological Society of Greece*, Patras. 2635-2644.
- **Papoulis, D.** 2008. Supergene jarosite formation within smectite and illite hydrothermal zones from Limnos Island, Northeast Aegean Sea, Greece. *Modern Management of Mine Producing, Geology and Environmental Protection*, SGEM, Bulgaria, I, 299-306.
- **Papoulis, D.** and Kalamponias, G.A. 2008. Naturally produced anatase nanostructured films during the hydrothermal alteration of biotite. *Nanotechnology and Applications*, NANA, Crete, Greece. 157-162.