

Curriculum Vitae of Dr. Ariadne Argyraki

Current position:

Assistant Professor in Geochemistry
Department of Economic Geology and Geochemistry
Faculty of Geology and Geoenvironment
National & Kapodistrian University of Athens
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Personal Information

Date of birth: 29 March 1970
Nationality: Hellenic
Married with one child

Education

PhD Environmental Geochemistry (1997, Department of Geology, Imperial College, London, United Kingdom) Thesis title: Estimation of measurement uncertainty in the sampling of contaminated land.
DIC Diploma of Imperial College in Environmental Geology (1997, Department of Geology, Imperial College, London, United Kingdom)
BSc Geology (1992, Department of Geology, National & Kapodistrian University of Athens, Greece)

Professional experience

2010 - present:

Assistant Professor in Geochemistry, National & Kapodistrian University of Athens, Department of Economic Geology and Geochemistry

- Teaching in undergraduate courses of Geochemistry, Applied Geochemistry, Analytical Geochemistry, Environmental Geochemistry.
- Teaching in postgraduate course of Applied Environmental Geology (Environmental Geochemistry)
- Supervisor of diploma dissertations of undergraduate students
- Supervisor of diploma dissertations of postgraduate MSc students
- Reviewer for the journals Geochemistry: Exploration, Environment, Analysis; The Science of the Total Environment

2003-2009:

Lecturer in Geochemistry, National & Kapodistrian University of Athens, Department of Economic Geology and Geochemistry

2001-2003:

Lecturer in Environmental Planning, Institute of Rural Development Planning (IRDP), Dodoma, Tanzania.
Development worker with Volunteer Service Overseas Organization funded by DFID, UK.

- Development and teaching of courses on Environment and Development, Environmental

Pollution, Environmental Planning, and Management of Natural Resources.

- Supervised the diploma dissertations of two postgraduate students.
- Designed and developed a GIS database for the Rural Information Center of IRDP.
- Cooperated with the Japan International Cooperation Agency (JICA) in rural development research projects within the Dodoma Region, Tanzania.

1997-2000:

Research Associate, Imperial College, T. H. Huxley School of the Environment, London, United Kingdom.

- Participated in research funded by the Ministry of Agriculture Fisheries and Food, UK on optimising emergency sampling strategy following a release of radioactive material into the environment.
- Participated in research funded by the Veterinary Laboratory Agency, UK on preparation and evaluation of an environmental GIS database at national scale comprising datasets of geology, soil geochemistry, climate and bovine TB epidemiology.
- Delivered tutorials and laboratory classworks to undergraduate students of Geology and postgraduate students of Environmental Technology courses, Imperial College, UK.

1990 & 1991 (summers):

Training student work, Institute of Geology and Mineral Exploration (IGME), Athens, Greece.

- Optical Microscopy and XRD analysis of sedimentary rock samples.

Research

Research interests

Environmental geochemistry focusing on the study of geochemical behaviour of potentially harmful elements in the surface terrestrial environment and the quantification of measurement uncertainty in contaminated land investigations.

Recent research projects

-Project leader

"Mobility of toxic elements in the soil of Stratoni mining area, N. Greece"

Funded by the University of Athens - Programme "Kapodestrias 2004-2005"

"Application of attapulgite clay for stabilisation of heavy metals in soil"

Funded by the University of Athens - Programme "Kapodestrias 2006-2007" &

Edafomichaniki S.A.

"Risk assessment of potentially toxic elements in stream water and sediment at Asprolakkas basin, N. Greece"

Funded by the University of Athens - Programme "Kapodestrias 2008-2009" & Hellas Gold S.A.

-Project participant

"Groundwater and soil contamination by As and Sb in areas of sulfide mineralization, NW Chios Island & Melivia Larissa, Greece"

Funded by EU & The General Secretariat of Research and Technology - Programme "PENED 2003"

Project leader: Prof. A. Kelepertsis, Uni. of Athens

"Geochemical and hydrogeological characteristics for the protection of Greek coastal zones: a GIS study of environmental factors"

Funded by the EU Social Fund & The Greek Ministry of Education- Programme "EPEAEK II: ARCHEMIDES"

Project leader: Prof. I. Georgoudis, TEI Peirea

Publications

Papers in Journals

Skarpelis, N., Argyraki, A. & Grypioti, A. (2009) Characterization of sources of inhalable particulate matter (PM10) in the old processing and smelting site of Lavrion, Greece. Goldschmidt 2009, Davos, Switzerland, Special Supplement Geoch. et Cosmoch. Acta 73, no 13S, p. A 1324.

Skarpelis, N. and Argyraki, A. (2009) The geology and origin of supergene ores in Lavrion (Attica, Greece), *Resource Geology*, 59, 1-14.

Kelepertsis, A., Argyraki, A. and Alexakis, D. (2006) Multivariate statistics and spatial interpretation of geochemical data for assessing soil contamination by toxic metals in the mining area of Stratoni, North Greece, *Geochemistry: Exploration, Environment, Analysis*, 6, 349-355.

Ramsey, M. H., Argyraki, A. (1997) Estimation of measurement uncertainty from field sampling: implications for the classification of contaminated land. *The Science of the Total Environment*, 198, 243-257.

Argyraki, A., Ramsey, M. H., and Potts, P. J. (1997) Evaluation of portable X-ray Fluorescence instrumentation for in situ measurements of lead on contaminated land. *Analyst*, 122, 743-749.

Argyraki, A., Ramsey, M.H., and Thompson, M. (1995) Proficiency testing in sampling: Pilot study on contaminated land, *Analyst*, 120, 2799-2803.

Ramsey, M.H., Argyraki, A., and Thompson, M. (1995) On the collaborative trial in sampling, *Analyst*, 120, 2309-2311.

Ramsey, M.H., Argyraki, A., and Thompson, M. (1995) Estimation of sampling bias between different sampling protocols on contaminated land, *Analyst*, 120, 1353-1356.

Chapters in Scientific Publications

Argyraki, A. (2010) Analysis of Variance to estimate sampling uncertainty. In: B. Geelhoed (Ed.), *Approaches in Material Sampling*, IOS Press, Amsterdam, 61-88.

Argyraki, A., Ramsey, M. H. (1998) Evaluation of inter-organisational sampling trials on contaminated land: comparison of two contrasting sites. In: Lerner, D. N. & Walton, N. R. G. (Eds) *Contaminated Land and Groundwater: Future Directions*. Geological Society, London, *Engineering Geology Special Publications*, 14, 119-125.

Ramsey, M. H., Argyraki, A. and Squire, S. (1998) Measurement Uncertainty Arising from Sampling Contaminated Land: A Tool for Evaluating Fitness-for-Purpose. In: *Contaminated Soil '98*, Thomas Telford, London, 221-230.

Argyraki, A., Ramsey, M.H., and Thompson, M. (1997) Measurement Uncertainty in Contaminated Land Investigation. In: Fowler, G. D. (Editor) Current Trends In Contaminated Land Research Society of Chemical Industry, London.

Conference Proceedings

Argyraki, A. and Petrakaki, N. (2010) Heterogeneity in heavy metal concentrations in the soil of a firing range area at Kesariani, Athens, Greece, Bulletin of the Geological Society of Greece vol. XLIII, Proceedings of the 12th International Congress in Planet Earth: Geological Processes & Sustainable Development, Patras, May 2010, 2319-2326.

Papastamatiou, D., Skarpelis, N. and Argyraki, A. (2010) Air quality in mining areas: the case of Stratoni, Chalkidiki, Greece, Bulletin of the Geological Society of Greece vol. XLIII, Proceedings of the 12th International Congress in Planet Earth: Geological Processes & Sustainable Development, Patras, May 2010, 2510-2519.

Kelepertzis, E., Argyraki, A., Daftsis, E. and Ballas, D. (2010) Quality characteristics of surface waters at Asprolakkas river basin, NE Chalkidiki, Greece, Bulletin of the Geological Society of Greece vol. XLIII, Proceedings of the 12th International Congress in Planet Earth: Geological Processes & Sustainable Development, Patras, May 2010, 1737-1746.

Chatzidiakos, E., Fanouraki, M., Kelepertzis, A., Argyraki, A. and Alexakis, D. (2009) Speciation and mobility of arsenic and antimony in groundwater at Melivoia, East Thessaly and Keramos area NW Chios, Greece. Proceedings of the 8th International Hydrogeological Congress of Greece, Athens 8-10 October 2008, 1:219-228.

Argyraki, A., Plakaki, A. and Godelitsas, A. (2007) Characterization of garden soil pollution in the mining village of Stratoni, N Greece. Bulletin of the Geological Society of Greece vol. XXXX, Proceedings of the 11th International Congress in Geoenvironment past, present, future, Athens 24-26 May, 1331.

Chatzidiakos, E., Fanouraki, M., Kelepertzis, A., Argyraki, A., and Alexakis, D. (2006) Environmental research on groundwater pollution by toxic elements in two mineralized areas of NW Chios Island and East Thessaly, Greece. Proceedings of 2nd International Conference in Water Science and Technology, Athens 23-26 November 2006.

Fanouraki, M., Chatzidiakos, E., Argyraki, A., and Kelepertzis, A. (2006) Building a GIS database for spatial interpretation of arsenic and antimony concentrations in the soil-rock-groundwater system of NW Chios and East Thessaly. Proceedings of 2nd International Conference in Water Science and Technology, Athens 23-26 November 2006.

Argyraki, A. (2005) Methods for estimating measurement uncertainty from sampling in environmental geochemistry soil investigations. Proceedings of 1st National Conference on Metrology, Athens. 11-12 November, 184. (in Greek)

Durr, P.A., Argyraki, A., Ramsey, M.H., Clifton-Hadley, R.S. (2000) Agro-ecological databases for spatial correlation studies: Methodological issues, Proceedings of Society for Veterinary Epidemiology and Preventative Medicine, Edinbrough 29-31 March 2000.

Technical Reports

Argyraki, A. (2006) Premining Geochemical Survey of Piavitsa Creek, Chalkidiki, Report for Hellas Gold S.A., University of Athens, Athens. (in Greek)

Argyraki, A. and Ndile, S.D.B. (2002) Assessment of Data Collection System(s) and Use in Planning at Regional, Council and Sub-Council Levels, Final Report -Japan International Cooperation Agency (JICA), IRDP, Dodoma.

Argyraki, A. and Katega, I.B. (2002) Assessment of Willingness and Capacity of District and Sub-District Levels in Piloting O&OD Strategic Planning, Final Report -Japan International Cooperation Agency (JICA), IRDP, Dodoma.

Argyraki, A., Durr, P. and Ramsey, M.H. (2000) Preparation and Evaluation of an Environmental GIS Database, VLA Project SE3001, Imperial College, London.

Argyraki, A., Kinnersley, R., and Ramsey, M.H. (1999) Optimizing Emergency Sampling Strategy Following a Release of Radioactive Material into the Environment, MAFF Research Contract No. RP0249, Imperial College, London.

Dissertations and Theses

Argyraki, A. (1997) Estimation of Measurement Uncertainty in the Sampling of Contaminated Land, PhD Thesis, University of London, Imperial College of Science Technology and Medicine, London.

Argyraki, A. and Kamtsiou, T. (1992) Geological Observations in SW Attica and Patroklos Island, BSc dissertation, National and Kapodistrian University of Athens, Athens (in Greek).

Member of Scientific Societies

European Association of Geochemistry
Society for Environmental Geochemistry and Health
The Geological Society of Greece
The Technologists Scientific Company of Mining Wealth
Greek Union of Sedimentology

Languages

Greek, English, Swahili