

MARIA ALOUPI

Specialized Research and Teaching Staff

Department of Environment, University of the Aegean, GR-81100 MYTILINI, Greece

EDUCATION

- 1982-1989: B.Sc. in Chemistry, University of Athens
- 1992-1993: Graduate Studies Program, Department of Environment, University of the Aegean
- 1993-1999: Ph.D. in Environmental Sciences, Department of Environment, University of the Aegean
- Thesis:*
Aloupi, M. (1999). Study of the influence of the urban effluents on the geochemistry of heavy metals in the coastal area of Mytilini. D. Phil. Thesis, University of the Aegean, Mytilini, Greece [in greek].

Grants

- 1995: International Atomic Energy Agency (IAEA) for training in heavy metals analysis in environmental samples, in *Marine Environmental Laboratory*, Monaco

Foreign Languages

English (fluent), French (fluent)

EMPLOYMENT AND WORK EXPERIENCE

- 1986 – 1988: “Dimitriaki SA” Trade of agricultural products:
Setting up of the analytical laboratory, analyst for the determination of radioactive contamination of cereals by the Chernobyl accident and for the quality control in cereals and cereal products
- 1992 – 1999: Water and Air Analysis Laboratory, Department of Environment, University of the Aegean:
Research assistant
- 1999 – 2000: Department of Marine Science, University of the Aegean:
Teaching assistant in General Chemistry and Analytical Chemistry Laboratory Practicals
- 2000 – 2003: Department of Marine Science, University of the Aegean:
Contract Lecturer appointed according to Presidential Decree (P.D. 407/80) in Marine Chemistry
- 2003 – 2014: Department of Environment, University of the Aegean:
Specialized Technical Staff (STS)
- 2008 – 2011: Department of Environment, University of the Aegean:
Contract Lecturer appointed according to Presidential Decree (P.D. 407/80) in Environmental Pollution

- 2012 – 2013: Department of Environment, University of the Aegean:
Contract Lecturer appointed according to Presidential Decree (P.D. 407/80) in
Environmental Chemistry and Pollution
- 2010 – 2012: Quality Manager of the Water and Air Analysis Laboratory, Department of
Environment, University of the Aegean (Certificate No 688 / Hellenic Accreditation
System (E.SY.D)
- 2014 – today: Department of Environment, University of the Aegean:
Specialized Research and Teaching Staff (SRTS)

EDUCATIONAL WORK

- Summer School of the Extended Education Program "Environmental Cartography", University of the Aegean, 1999
Course taught:
 - GIS Applications in Aquatic Ecosystems (full course).

- Department of Marine Science, University of the Aegean, 2000 – 2003
Courses taught:
 - Introduction to the Marine Sciences / Winter Semester 2000-2001 (full course)
 - Chemical Oceanography I (theory and laboratory practicals) / Winter Semester 2000-2001, 2001-2002, 2002-2003 (full course)
 - Chemical Oceanography II / Spring Semester 2000-2001, 2001-2002 (full course)
 - Marine Environmental Geochemistry / Spring Semester 2000-2001, 2001-2002 (full course)
 - Methods in sample collection and analysis / Winter Semester 2000 – 2001, 2001 – 2002, 2002-2003 (4 out of 13 lectures)
 Tutoring:
Supervision of two undergraduate dissertations

- Postgraduate Studies Programme in "Coastal Management", University of the Aegean, 2000 – 2003
Courses taught:
 - Biogeochemical Processes (2 out of 12 lectures)

- Department of Environment, University of the Aegean
Courses taught:
 - Aquatic Pollution Processes / Winter Semester 2003-2004 (teaching assistance)
 - Aquatic Pollution / Winter Semester 2007-2008 (teaching assistance)
 - Aquatic Pollution / Winter Semester 2008-2010; 2015-2016 (full course)
 - Environmental Chemistry / Spring Semester 2011-2014 (teaching assistance)
 - Environmental Chemistry / Spring Semester 2014-2016 (full course)
 Tutoring:
Contribution to the supervision of over twenty undergraduate dissertations (1992 - 2013)
Supervision of 10 undergraduate dissertations (2014-2015)

- Theophrastus Graduate Studies Program in "Environmental and Ecological Engineering"

Courses taught:

- Aquatic Pollution / Winter Semester 2007-2010 (full course)
- Environmental Chemistry / Spring Semester 2011-2015 (full course)

M.Sc. Theses Supervision:

Supervision of five M.Sc. student theses

Lecture notes

- 1 Angelidis, M. O., & Aloupi, M. (1998). "Marine Coastal Geochemistry". Graduate Studies Program, university of Athens, 13 pp. + Annex
- 2 Aloupi, M. (2001). "Laboratory Practicals in Chemical Oceanography". Department of Marine Science, University of the Aegean, 70 pp. + Annexes
- 3 Aloupi, M. (2001). "Metal determination in marine samples". Department of Marine Science, University of the Aegean, 53 pp.
- 4 Aloupi, M. (2002). "Marine Environmental Geochemistry". Department of Marine Science, University of the Aegean, 115 pp.
- 5 Aloupi, M. (2002). "Introduction to Marine Chemistry" ". Department of Marine Science, University of the Aegean, 74 pp.

MEMBERSHIP IN SCIENTIFIC AND PROFESSIONAL ORGANISATIONS

- Association of Greek Chemists (since 1986)
- Association of Greek Oceanographers (since 1992)
- Marine Pollution Committee, CIESM (since 1995)
- Chemical Oceanography Committee, CIESM (since 1995)

PARTICIPATION IN CONFERENCE SCIENTIFIC COMMITTEES

1st International Conference on New Water Culture of SE European countries, 20th-22nd October 2005, Athens, Greece.

PEER REVIEWING & RESEARCH PROPOSAL EVALUATION

- Reviewer for the scientific journals *Ecotoxicology and Environmental Safety*, *G-Nest The Journal*, *Soil and Sediment Contamination An International Journal*, *Journal of Environmental Management*, *Environmental Pollution*, *Environmental Monitoring and Assessment*.
- Research proposal evaluation for the Swiss National Science Foundation (SNSF) and the Swiss Agency for Development and Cooperation (SDC), in the framework of the SCOPES programme, and for the (American) National Science Foundation.

RESEARCH INTERESTS

Heavy metals in the environment: analysis, biogeochemistry, ecotoxicology, pollution;
Environmental Chemistry and pollution

PUBLICATIONS IN PEER REVIEWED JOURNALS

1. Angelidis, M. O., & Aloupi, M. (1995). Metals in sediments of Rhodes harbour, Greece. *Marine Pollution Bulletin*, 31(4-12), 273-276.
2. Angelidis, M. O., & Aloupi, M. (1997). Assessment of metal contamination in shallow coastal sediments around Mytilene, Greece. *International Journal of Environmental Analytical Chemistry*, 68(2), 281-293.
3. Angelidis, M. O., & Aloupi, M. (1999). Assessment of sewage sludge quality in Greece. *Toxicological and Environmental Chemistry*, 68(1-2), 133-139.
4. Angelidis, M. O., & Aloupi, M. (2000). Geochemical study of coastal sediments influenced by river-transported pollution: Southern Evoikos Gulf, Greece. *Marine Pollution Bulletin*, 40(1), 77-82.
5. Aloupi, M., Angelidis, M. O., & Scoullou, M. (2000). Spatial and temporal variability of composition of urban effluents in the island of Lesbos, Greece. *Environment International*, 26(1-2), 29-35.
6. Aloupi, M., & Angelidis, M. O. (2001). Geochemistry of natural and anthropogenic metals in the coastal sediments of the island of Lesbos, Aegean Sea. *Environmental Pollution*, 113(2), 211-219.
7. Aloupi, M., & Angelidis, M. O. (2001). Normalization to lithium for the assessment of metal contamination in coastal sediment cores from the Aegean Sea, Greece. *Marine Environmental Research*, 52(1), 1-12.
8. Aloupi, M., & Angelidis, M. O. (2002). The significance of coarse sediments in metal pollution studies in the coastal zone. *Water, Air, and Soil Pollution*, 133(1-4), 121-131.
9. Gavriil, A. M., Angelidis, M. O., & Aloupi, M. (2005). Processes affecting the distribution of trace metals in Kalloni bay, island of Lesbos, Greece. *Journal of Marine Environmental Engineering*, 8(2), 129-136.
10. Aloupi, M., Angelidis, M.O., Gavriil, A., Karantanelli, M., Koulousaris, M., Nikolaou, A., Petsas, A., Tsirtsis, G., Vagi, M. & Vlasiotou, F. (2007). Marine monitoring along the eastern coastal area of the island of Lesbos, Greece during 2004 in the framework of MEDPOL III. *Global NEST Journal*, 9(2), 83-97.
11. Aloupi, M., Angelidis, M.O., Gavriil, A., Koulousaris, M., & Varnavas, S.P. (2009). Influence of geology on arsenic concentrations in ground and surface water in central Lesbos, Greece. *Environmental Monitoring and Assessment*, 151(1-4), 383-396.
12. Tsogas, G.Z., Giokas, D.L., Vlessidis, A.G., Aloupi, M., Angelidis, M.O. (2009). Survey of the distribution and time-dependent increase of platinum-group element accumulation along urban roads in Ioannina (NW Greece). *Water, Air, and Soil Pollution*, 201(1-4), 265-281.
13. Koulousaris, M., Aloupi, M., Angelidis, M.O. (2009). Total Metal Concentrations in Atmospheric Precipitation from the Northern Aegean Sea. *Water, Air, and Soil Pollution*, 201(1-4), 389-403.
14. Angelidis, M.O., Radakovitch, O., Veron, A., Aloupi, M., Heussner, S., Price, B. (2011). Anthropogenic metal contamination and sapropel imprints in deep Mediterranean sediments. *Marine Pollution Bulletin*, 62, 1041-1052.

15. Aloupi, M., Koutrotsios, G., Koulousaris, M., Kalogeropoulos, N. (2012). Trace metal contents in wild edible mushrooms growing on serpentine and volcanic soils on the island of Lesbos, Greece. *Ecotoxicology and Environmental Safety*, 78, 184-194.
16. Kalogeropoulos, N., Yanni, A.E., Koutrotsios, G., Aloupi, M (2013). Bioactive microconstituents and antioxidant properties of wild edible mushrooms from the island of Lesbos, Greece. *Food and Chemical Toxicology*, 55, 378–385.
17. Adamidis, G.C., Aloupi, M., Kazakou, E., Dimitrakopoulos, P.G. (2014). Intra-specific variation in Ni tolerance, accumulation and translocation patterns in the Ni-hyperaccumulator *Alyssum lesbiacum*. *Chemosphere*, 95, 496-502.
18. Arvaniti, O.S., Hwang, Y., Andersen, H.R., Stasinakis, A.S., Thomaidis, N.S., Aloupi, M. (2015). Reductive Degradation of Perfluorinated Compounds in Water using Mg-aminoclay coated Nanoscale Zero Valent Iron. *Chemical Engineering Journal*, 262, 133-139.
19. Aloupi M., Kazantzidis S., Akriotis T., Bantikou E., Hatzidaki V.-O. (2015). Lesser White-fronted (*Anser erythropus*) and Greater White-fronted (*A. albifrons*) Geese wintering in Greek wetlands are not threatened by Pb through shot ingestion. *Science of The Total Environment*, 527–528, 279-286.
20. Zkeri, E., Aloupi, M., Gaganis, P. (2015). Natural occurrence of arsenic in groundwater from Lesbos Island, Greece. *Water, Air, and Soil Pollution*, 226(9): art. no 294.
21. Iatrou, E.I., Stasinakis, A.S., Aloupi, M. (2015). Cultivating duckweed Lemna minor in urine and treated domestic wastewater for simultaneous biomass production and removal of nutrients and antimicrobials. *Ecological Engineering*, 84: 632-639.

PAPERS IN CONFERENCE PROCEEDINGS

1. Angelidis, M. O., Aloupi, M., Anastopoulou, I. & Lazari, A. (1994). Study on the quality of sewage sludge from municipal wastewater treatment plants in Greece. *International Conference "Restoration and Protection of the Environment II"*. Patra, Greece, 225-230.
2. Angelidis, M. O., Aloupi, M., Papavasiliou, A. & Papagiannis, I. (1994). Heavy metals in sediments from eastern Aegean harbours. *International Conference Restoration and Protection of the Environment II"*. Patra, Greece, 247-254.
3. Angelidis, M. O., Aloupi, M., Kambanos, M. & Meletis, D. (1994). Heavy metals in sediments of the Evros delta wetland. *Environmental Contamination*, S. P. Varnavas (Ed.), CEP Consultants Ltd, Edinburgh, 275-277.
4. Angelidis, M. O., Aloupi, M., Papagiannis, I. & Papavasiliou, A. (1994). Marine pollution problems related to the Mediterranean island's harbours. *Colloque International "Villes des rivages et Environnement Littoral en Méditerranée"*, Montpellier, France, 129-132.
5. Angelidis, M. O. & Aloupi, M. (1995). Factors influencing the accumulation of heavy metals into the coastal sediments of Lesbos island, Greece. *Rapp. Comm. Int. Mer. Médit.*, 34, 133.
6. Angelidis, M. O. & Aloupi, M. (1996). Metals in sediments of Rhodes harbour, Greece. *International*

7. Angelidis, M. O. & Aloupi, M. (1996). Historic accumulation of metals in the sediments of Mytilene harbour, Greece. *Colloque International "Navigation, Echanges et Environnement en Méditerranée"*, Montpellier, France, 221-226.
8. Angelidis, M. O. & Aloupi, M. (1997). Metal distribution in sediment cores from the coastal area of Mytilene. *5th Greek Symposium of Oceanography and Fisheries, Kavala, Greece*, Vol 1. 101-103 [in greek].
9. Angelidis, M. O. & Aloupi, M. (1997). Metal distribution in the coastal marine sediments near the Asopos river mouth. *5th Congress of Environmental Science and Technology, Molyvos, Greece*, Vol. B, 403-412 [in greek].
10. Angelidis, M. O. & Aloupi, M. (1998). Evaluation of metal pollution in the coastal sediments of Lesbos island, Greece. *Rapp. Comm. Int. Mer. Médit.*, 35, 226- 227.
11. Angelidis, M. O., Matsinos, Y. & Aloupi, M. (1998). A simple model for the prediction of metal load discharged from an insular urban area into the Aegean Sea. *1st International Symposium "Issues in Environmental Pollution: the state and use of Science and Predictive Models"*, Denver U.S.A., 6.13 (abstract).
12. Angelidis, M. O. & Aloupi, M. (1999). Toxic metals in the urban effluents of Mytilene: results from a systematic survey. *6th Conference of Environmental Science and Technology, Pythagorio, Sammos, Greece*, Vol. C, 490-497 [in greek].
13. Angelidis, M. O. and Aloupi, M. (1999). Data processing for the assessment of metal contamination in marine sediments. *International Conference in Electronic Format "Towards the Millenium Modern Methods of Environmental Analysis"* of the Royal Society of Chemistry and the the Royal Australian Chemical Institute, 8 November, World Wide Web (Invited paper).
14. Aloupi, M. & M. O. Angelidis (2000). Geochemical normalization of metal concentrations in near-shore marine sediments. *6th Greek Conference of Oceanography and Fisheries, Chios, Greece*, Vol. I, 189-193 [in greek].
15. Angelidis, M. O., Gavriil, A., & Aloupi, M. (2001). Trace metal distribution in core sediments and pore water from Kalloni Bay, Lesbos, Greece. *7th International Conference on Environmental Science and Technology, Syros, Greece*, Vol. A, 32-39.
16. Angelidis, M. O., Gavriil, A. & Aloupi, M. (2001). Pore water distribution of Fe, Mn and DOC in sediments of a semi-enclosed Bay in the island of Lesbos, Greece. *Rapp. Comm. Int. Mer. Médit.*, 36, 108.
17. Gavriil, A. M., Angelidis, M. O. & Aloupi, M. (2002). Trace metal distribution in seawater of Kalloni Bay, Lesbos island, Greece. *1st Scientific Conference of the European Federation of Marine Science and Technology Societies: "Oceanographical Aspects for a Sustainable Mediterranean"*. Athens, Greece. Poster presentation
18. Gavriil, A. M., Angelidis, M. O. & Aloupi, M. (2002). Manganese and Iron mobility in sediments of a semi-enclosed marine system: Kalloni Bay, Lesbos, Greece. *8th FECS Conference, Environmental Science and Pollution Research, Special Issue 3*, 181-182.
19. Gavriil, A. M., Angelidis, M. O. & Aloupi, M. (2003). Metal distribution in core sediments from the

Kalloni bay, Lesvos. *7th Greek Conference of Oceanography and Fisheries*, Crete, Greece [in greek].

20. Angelidis M. O., Aloupi, M. & Gavriil, A. M. (2003). Trace metal distribution in urban effluents of Mytilene: Results from a five years monitoring program. *8th International Conference on Environmental Science and Technology*. Limnos, 39-46.
21. Gavriil, A. M., Angelidis, M. O. & Aloupi, M. (2004). Processes affecting the distribution of trace metals in Kalloni bay, island of Lesvos, Greece. *International Environmental Conference 'Protection and Restoration of the Environment VII'*, Mykonos. Poster presentation.
22. Angelidis, M. O., Hatzianestis, I., Aloupi, M., Sklivagou, E. & Gavriil, A. (2006). Distribution of aliphatic and polycyclic aromatic hydrocarbons in sediments of the Gulf of Gera (Lesvos island). 8th Greek Conference of Oceanography and Fisheries, Thessaloniki, Greece. Poster presentation. [in greek].
23. Angelidis, M., Radakovitch, O., Veron, A., Aloupi, M. & Gavriil, A. (2007). Metal pollution fingerprints in sediments of deep Western Mediterranean Sea. *Rapp. Comm. int. Mer Medit.*, 38, 228.
24. Gavriil A., Aloupi, M., Koulousaris M., Stefanou D. & Angelidis M. (2007). Arsenic distribution in Kalloni bay, island of Lesvos, Greece. *Rapp. Comm. Int. Mer Medit.*, 38, 262.
25. Angelidis M. O., Aloupi M., Gavriil A. M., Koulousaris M. & Stefanou D. (2007). Arsenic distribution in thermal springs and ground water in the drainage basins of the river Sperchios and the island of Lesvos. *10th International Conference on Environmental Science And Technology*, Vol. A, 55-62.
26. Aloupi M., Akriotis T., Kazantzidis S. & Koulousaris M. (2010). Lead concentrations and lead poisoning in waterfowl from the Evros Delta. 3rd International Eurasian Ornithology Congress, Mytilini, Greece, 8 - 11 April 2010. Poster presentation
27. Adamidis G. C., Aloupi M., Kazakou E., Baker A. J. M., Reeves R. D., Dimitrakopoulos P. G. (2011). Intra-population variation in nickel accumulation and tolerance in the serpentine endemic Ni-hyperaccumulator *Alyssum lesbiacum*. 7th International Conference on Serpentine Ecology, Coimbra, Portugal, 12-16 June 2011. Poster presentation
28. M. Aloupi, T. Akriotis, S. Kazantzidis, M. Koulousaris and N. Kalogeropoulos (2011). Heavy metal levels in tissues of wigeon (*Anas penelope*) from the Evros delta, Greece. 16th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, Ioannina – Greece, 24 - 27 September 2011. Poster presentation
29. Yanni A. E., Kalogeropoulos N., Koutrotsios G., Aloupi M. (2013). Bioactive microconstituents of wild edible mushrooms from the island of Lesvos, Greece. 5^ο Πανελλήνιο Επιστημονικό Συνέδριο «ΣΥΓΧΡΟΝΕΣ ΤΑΣΕΙΣ ΣΤΟΝ ΤΟΜΕΑ ΤΩΝ ΛΙΠΙΔΙΩΝ», Αθήνα, 29 Μαρτίου 2013, Βιβλίο Περιλήψεων, σελ. 8.
30. Zkeri E., Aloupi M. and Gaganis P. (2013). Natural occurrence of arsenic in groundwater, Lesvos island, Greece. *13th International Conference on Environmental Science and Technology*, Athens, 5 - 7 of September.
31. Evangelinos K., Jones N., Aloupi M., Kalantzi O.-I., Stasinakis A., Sazakli E., Leotsinidis M., Siavalas G., Christanis K., Vakros J. and Karapanagioti H. K. (2014). Integrating sustainability in participatory decision-making (INSPIRED): Asopos sediment monitoring. 2014 I2SM International Symposium on Sediment Management, Ferrara, 17th-19th September, Abstracts Vol. 1, 182
32. Aloupi M., Koulousaris M., Kalogeropoulos N. (2014). Heavy Metals in Aromatic Plants from Greece and in their Infusions. 9th Aegean Analytical Chemistry Days, Chios, 29/09 – 03/10 2014. Poster

presentation

- Iatrou I. E., Aloupi M., Stasinakis S. A., Thomaidis S. N. (2014). Growing *Lemna minor* in human and synthetic urine for biomass production, nutrients and antimicrobials removal. 11th International Phytotechnologies Conference, Heraklion, Crete, Greece, Sept. 30 - Oct. 3, 2014, Book of Abstracts, p. 314.

BOOK CHAPTERS

- Akriotis, T., Aloupi M., & Koulousaris M. (2009). Determination of Pb concentrations and investigation of the occurrence of saturnism in waterfowl from the Evros Delta, p. 129-168. In: Kazantzidis S. (ed.), *Influence of hunting on waterfowl*. Ministry of Rural Development and Food - General Secretariat of Forests & Natural Environment – National Agricultural Research Foundation (N.AG.RE.F), Forest Research Institute, Thessaloniki, 243 pp.

PARTICIPATION IN RESEARCH PROJECTS

- MED POL Monitoring Project: Marine monitoring along the coastal area of the island of Lesvos. Ministry of the Environment, Greece & FEDER/EEC, 1992-1994.
- MED POL Monitoring Project: Marine monitoring along the coastal area of the island of Lesvos. Ministry of the Environment, Greece & FEDER/EEC, 1994 - 1997.
- Study of the influence of harbours on the geochemistry and bioavailability of metals which are accumulated in the marine sediments. Research Unit of the University of the Aegean, 1994 - 1995.
- Heavy metals in the harbours of Mediterranean islands: impact on the shallow coastal ecosystem. UNEP/IAEA, 1995-1996.
- Geochemical study of the sediments from the coastal zone near Mytilene, Greece. Research Unit of the University of the Aegean, 1996-1997.
- Oceanographic study of the marine environment of the mouth of Asopos river, (Hellenic) Bank of Industrial Development, 1996-1997.
- Monitoring of the marine environment quality in Argolikos Gulf, Greece. Municipal Authority of Water and Wastewater of Argos, 1997-1999.
- Graduate studies in Marine Sciences and work opportunities in Greece: present situation and future perspectives. Ministry of Education & University of Athens, 1998-1999.
- Monitoring of the water quality in the bays of Kalloni, Lesvos and Moudros, Limnos for the operation of shellfish fishing and farming. Prefectural Authority of Lesvos, 2001 – 2002.
- Atmospheric deposition and impact of pollutants, key elements and nutrients on the open Mediterranean Sea (ADIOS). European Commission (FP5) – EVK3-2000-00604, 2001-2003.
- Determination and evaluation of the levels of toxic metals and compounds in wild birds in Greece. Ministry of Environment, Planning and Public Works, 2003-2004.
- MED POL Monitoring Project: Marine monitoring along the coastal area of the island of Lesvos and

of the Argolikos gulf. Ministry of the Environment, Greece & FEDER/EEC, 2004-2006.

13. Study of the distribution and speciation of as in aquatic systems developed in hydrothermal fields. European Social Fund and National Resources-(EPEAEK-II) "PYTHAGORAS", 2004 – 2006.
14. Determination of lead concentration in waterfowl tissues. Ministry of Rural Development and Food - General Secretariat of Forests & Natural Environment – National Agricultural Research Foundation (N.AG.RE.F), Forest Research Institute, 2008.
15. «THALES – University of the Aegean - Integrating Sustainability in Participatory Decision-making (INSPIRED). European Union (European Social Fund - ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF), 2012-2015.
16. Investigation of lead poisoning in the European population of the lesser white-fronted goose. Hellenic Agricultural Organization "Demeter"– Forest Research Institute, 2013-2014.