



Curriculum Vitae of Georgios N. Anastassakis

Personal Details

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Degrees

1989: PhD in Mining Engineer and Metallurgy (Mineral Processing)
National Technical Univ. of Athens (NTUA)
Thesis Title: Contribution to the beneficiation of the unaltered phosphate rock of Epirous area (Greece)

1983: Diploma in Mining Engineering and Metallurgy
National Technical University of Athens
Thesis Title: Mineral Processing Plant Design of Iron Ore from Serifos Island, Cyclades

Professional Details

2009 – today: Professor, School Mining Engineering and Metallurgy, NTUA
2005 – 2009: Associate Professor, School Mining Eng. and Metallurgy, NTUA
2000 – 2005: Assistant Professor, Dept. Mining Eng. and Metallurgy, NTUA
2000: **Invited Researcher in Columbia University (New York) – Dept. Earth and Environmental Engineering (working with Prof. P. Somasundaran)**
1994 – 2000: Lecturer, Dept. Mining and Metallurgical Eng., NTUA
1992 – 1994: LARCO GMM SA Ferronickel Co. – R&D Dept.
1989 – 1994: Teaching Associate and Senior Researcher in NTUA

1989 – 1992: Teaching Associate on Contract in Technical University of Crete

Research

Research Activities: He has been Senior Researcher or Supervisor in more than 40 research projects in areas such as:

- Recovery of uranium from lignite
- Gold recovery
- Processing of many mineral deposits (sulfides, phosphates, feldspars, kyanite and sillimanite, antimonite, barite, magnesite, nickeliferous laterites, wollastonite, coal, chromite, quartz, volcanic tuff, pumice, etc.) by using physical and physicochemical methods (gravity methods, magnetic separation, electrostatics, flotation, selective agglomeration)
- Recovery of by-products from tailings (e.g. nickel from slag, quartz from nickeliferous laterite processing, magnesite from rejected material before hand-sorting)
- Iron removal from industrial minerals
- Fundamental and applied research on flotation
- Hydrodynamics of flotation cells
- Flotation of sulfides and industrial minerals using environmental friendly collectors (organosolv lignin)
- Fine and ultra-fine particles processing by applying magnetic coating or seeding and selective agglomeration methods
- Flocculation and thickener operation both at industrial and lab scale
- Electro-osmotic dewatering of red mud slurry
- Heavy metal ion and phosphates removal from waste waters by flotation and by using natural sorbents (minerals, chitosan)
- Factors affecting fine particle generation in rotary kilns
- Recovery of by-products from mineral processing wastes
- Management of SPL waste
- Soil cleaning using flotation
- Metals recovery from wastewaters
- Separation of fine valuable materials from electric waste stream
- Copper recovery from waste electric cables
- Separation of metals from electric and electronic waste
- Water purification from oil

During his service in NTUA he has been the supervisor of funded research projects related to the beneficiation of Greek lignites, up-grade of pumice, effluent purification from mines and metallurgical plants, factors affecting fine particle generation in rotary kilns, arsenic minerals removal from nickeliferous laterites etc. During his affiliation with GMM SA LARCO Ferronickel Co., he was supervising 11 research projects and participated in the submission of proposals. He has also participated in the working group of the company, which submitted investment project for funding.

He has been member of research groups: a) in the frame of European Life-learning Project 2007-13 Leonardo da Vinci entitled “Valid for Europe E-learning Education in Sustainability – Waste Collection and Recycling of Plastics for the Environmental Protection” (LLP-LDV-TOI-07-BG-166-023), b) metal recovery from electronic waste through metallurgical

treatment, c) scientific coordinator of the Greek-Chinese bilateral research project “Separation and recovery of Inox steel from Dishwashers” (T7ΔKI-00364), d) flotation of sulfides using eco-collectors, e) “Increase of supply of battery minerals by flotation of REE-rich apatite”, f) “Supply of battery minerals using lignin nanoparticles as flotation collectors”, g) “heavy metal removal from wastewater with chitosan adsorbent”, h) numerous industrial projects.

Research Interests:

- Mineral Processing of ores, coal, industrial minerals and rocks
- Physical Chemistry of Surfaces (liquid-fluid, liquid/solid and air/solid interfaces) Phenomena at the interfaces, and Colloids
- Physical Chemistry and Hydrodynamics of Flotation (reagents, green collectors, flotation cells)
- Fine and ultra-fine particles processing, particle interactions, oil agglomeration
- Flocculation, Electro-osmotic dewatering
- Water effluent purification by flotation method and adsorption on natural sorbents
- Solid waste processing and recycling
- Soil cleaning by mineral processing methods

Scientific and Professional Affiliations

AFFILIATIONS

- International Advisory Committee (Country delegate) of International Mineral Processing Congress (IMPC)
- Balkan Mineral Processing Congress (BMPC) Scientific Committee Country delegate)
- Balkan Academy of Science on Mineral Technology (Full Member)
- International Organizing Committee of The International Coal Preparation Congresses – ICPC (Corresponding Member-Country delegate)
- Society of Mining Professors (SOMP)
- WFEO CEE Task Group on Sustainability and Mining
- Society for Mining, Metallurgy and Exploration Inc. (SME) (2000-2010)
- International Solid Waste Association (I.S.W.A.) (2000-2010)
- Scientific Society of the Mineral Wealth Technologists of Greece
- Technical Chamber of Greece
- Association of Greek Mining Engineers and Metallurgists
- **Hellenic Ceramic Society of Greece**

MEMBER OF CONGRESS INTERNATIONAL ORGANIZING/ SCIENTIFIC COMMITTEES

1. TMS Fall 2002 Congress on Recycling and Waste Treatment in Mineral and Metal Processing: Technical and Economic Aspects, 16 – 20 June 2002, Lulea, Sweden
2. International Symposium on Bio-hydrometallurgy, September 2003, Athens, Greece
3. REWAS 2004, Global Symposium on Recycling, Waste Treatment and Clean Technology, 26 – 29 September 2004, Madrid, Spain
4. 1st International Conference on Engineering for Waste Treatment, Beneficial Use of Waste and By-products “WasteEng2005”, 16-18 May 2005, Albi, France

5. Chairman of the XII Balkan Mineral Processing Congress, 10-14 June 2007, Delphi, Greece
6. 2nd International Conference on Engineering for Waste Valorization “WasteEng2008”, 3-5 June 2008, Patras, Greece
7. REWAS 2008, Global Symposium on Recycling, Waste Treatment and Clean Technology, October 2008, Cancun, Mexico.
8. 3rd International Seminar ECOMINING – Europe in 21st Century “Let’s give Earth its balance back”, September 4-5, 2009 – Milos Island, Greece.
9. 13th International Geological Congress, Chania, Greece, 5-8 Sept. 2013.
10. 14th International Mineral Processing Symposium, 15-17 October 2014, Kusadasi.
11. 9th International Industrial Minerals Symposium, 14-15 May 2015, Izmir, Turkey.
12. 5th ICNES International Congress on Natural Engineering Science (ICNES), August 27-29, 2019, Istanbul, Turkey.
13. XIV International Mineral Processing and Recycling Conference – IMPRC 2019, May 2019, Belgrade, Serbia.
14. XIV International Mineral Processing and Recycling Conference – IMPRC 2021, May 12-14, 2021, Belgrade, Serbia.
15. XV International Mineral Processing and Recycling Conference – IMPRC 2023, May 17-19, 2023, Belgrade, Serbia.
16. SIPS 2023, **Co-chair** of the 8th International Symposium on Mineral Processing, Nov. 27-Dec. 1, 2023, Playa Bonita, Panama.
17. VI International Scientific and Technical Conference “Innovative development of resource-saving technologies and sustainable use of natural resources”, Member of the Scientific Committee, Petrosani, Romania, November 16, 2023.
18. 1st International Conference on Green Innovation and Circular Economy (GR-I-CE 2024), October 20-23, 2024, Athens, Greece.
19. XVI International Mineral Processing and Recycling Conference – IMPRC 2025, May 28-30, 2025, Belgrade, Serbia.

MEMBER OF SCIENTIFIC BOARDS

1. International Advisory Board of the XXII International Mineral Processing Congress, 28 September - 3 October 2003, Cape Town, South Africa
2. Scientific Advisory Board of MiMeR (Minerals and Metals Recycling) Research Center at Lulea University of Technology, Sweden, 2002-4 (One of the 3 Members of the External-European Evaluators).
3. International Advisory Board of the XXIII International Mineral Processing Congress, 3-8 September 2006, Istanbul, Turkey.
4. International Advisory Board of the XXIV International Mineral Processing Congress, 5-9 September 2010, Brisbane, Australia.
5. **National Representative of Greece in EU Coal and Steel Advisory Group (Steel Subgroup), 2008-2010.**
6. **Country Representative as Member of the Expert Group on Risk Management in the Extractive Sector (European Commission Directorate-General for Environment Waste Management & Secondary Materials) (2020-today)**
7. **Country Representative as Member of EU Technical Advisory Group on Risk Management in the Extractive Sector (2020-today)**
8. **Member of the ad-hoc Expert Scientific Committee, invited by the Greek Ministry of Energy and Environment to evaluate the submitted investment project and business plan, 2020.**
9. **Member of PhD Examining Committee of Lulea Univ. (Sweden), Cagliari Univ. (Italy)**

REVIEWER OF:

1. International Journal of Mineral Processing (Elsevier)
2. Minerals Engineering (Elsevier)
3. Journal of Colloid and Interface Science (Elsevier)
4. Colloids and Surface A (Elsevier)
5. Colloids and Surface B (Elsevier)
6. Environmental Science and Technology (The American Chemical Society)
7. Langmuir (The American Chemical Society)
8. Environmental Technology (Taylor & Francis)
9. Separation Science and Technology (Taylor & Francis)
10. Journal of Hazardous Materials (Elsevier)
11. Separation and Purification Technology (Elsevier)
12. Journal of the Taiwan Institute of Chemical Engineers (Elsevier)
13. Composites B (Elsevier)
14. Applied Clay Science (Elsevier)
15. Water and Environment Journal (Wiley)
16. Transactions of Nonferrous Metals Society of China (Elsevier)
17. International Journal of Mining Science and Technology (Elsevier)
18. Minerals and Metallurgical Processing Journal (Society for Mining, Metallurgy, and Exploration, Inc. - SME)
19. Mineral Processing and Extractive Metallurgy Review (Taylor & Francis)
20. Geochemical Journal (The Geochemical Society of Japan)
21. Journal of the Chinese Institute of Chemical Engineers
22. International Journal of Environment and Waste Management (Inderscience)
23. Industrial & Engineering Chemistry Research (The American Chemical Society)
24. The Open Mineral Processing Journal (Bentham OPEN)
25. Chemical Engineering Journal (Elsevier)
26. Adsorption Science and Technology Journal (Multi-Science Metapress)
27. Tenside, Surfactants, Detergents Journal (Hanser, Germany)
28. Materials Research Bulletin (Elsevier)
29. Physics and Chemistry of Minerals (Springer)
30. Clean Technology and Environmental policy (Springer)
31. Environmental Science and Pollution Research (Springer)
32. Sustainable Extraction and Processing of Raw Materials Journal (University of Mining and Geology "St. Ivan Rilski", Sofia, Bulgaria)
33. Journal of Mining and Metallurgy, Section A: Mining (University of Belgrade - Technical Faculty of Bor, Serbia).
34. Recycling and Sustainable Development (University of Belgrade - Technical Faculty of Bor, Serbia).
35. Environmental Engineering and Management Journal ("Gheorghe Asachi" Technical Univ. of Iasi, Romania)
36. Philippine Journal of Science (Philippine Science and Technology Information Institute – STII)
37. **Editor** (1994-2012) Mineral Wealth Journal, The Scientific Society of Mineral Wealth Technologists, Greece.
38. Numerous papers submitted in the following Congresses: IMPC 2003, International Symposium on Bio-hydrometallurgy 2003, REWAS 2004, WasteEng 2005, XII Balkan

Mineral Processing Congress 2007, XIII Balkan Mineral Processing Congress 2009, IMPC 2010 and 2018, etc.

39. Research Projects for the Greek Secretariat of Research and Technology (Greek Ministry of Development)
40. **Research Projects for The Georgia National Science Foundation (GNSF) and of the corresponding Serbian Research Organization**
41. Research projects submitted in other Greek Universities for funding

MEMBER OF EDITORIAL BOARDS-OTHER ACTIVITIES

- Editor of the quarterly journal “Mineral Wealth” published by the Scientific Society of Mineral Wealth Technologists of Greece (1994-2012 ceased its publication).
- Editor of the Proceedings of the XII Balkan Mineral Processing Congress, Delphi, June 10-14, 2007.
- International Journal of Mineral Processing, published by Elsevier (2014-2016)
- Minerals and Metallurgical Processing Journal, published by the Society for Mining, Metallurgy, and, Exploration, Inc. (SME).
- Journal of Mining and Metallurgy, Section A: Mining, published by the University of Belgrade - Technical Faculty of Bor, Serbia.
- Recycling and Sustainable Development, published by the University of Belgrade - Technical Faculty of Bor, Serbia.
- Sustainable Extraction and Processing of Raw Materials Journal, published by The University of Mining and Geology “St. Ivan Rilski”, Sofia, Bulgaria.
- Journal of Ore Dressing, published by the Mineral Processing Society of Turkey.
- Journal of Mining and Geology, published by the Nigerian Mining and Geosciences Society.
- The Open Mineral Processing Journal, published by Bentham OPEN (2007-2010).
- Buletin Resurse Minerale, published by the Romanian National Institute for Metals and Radioactive Resources - ICPMRR.
- Technical Annals, published by the Technical Chamber of Greece.

ADMINISTRATIVE POSITIONS

During his service in National Technical University of Athens (NTUA) he has successfully undertaken the following administrative positions:

- Deputy Dean of the School Mining Eng. and Metallurgy, NTUA (2016-18, 2018-2020)
- Member of the Administration Board of the School Mining Eng. and Metallurgy, NTUA (2016-20 and 2020-2023)
- Director of Mineral Processing Laboratory (2018-today)
- Vice Chair of the NTUA Board of Undergraduate Studies (2015-2019)
- Member of the Administration Board of NTUA-Professors (2019-2025) and vice-chair (2023-2025).
- NTUA Quality Assurance Board (2015-2019, 2019-2023)
- Head of the Division “Metallurgy and Materials Technology” NTUA (2010-14)
- Deputy Head of the aforementioned Division (2008-2010)
- NTUA Donations and Property Board (2010-2014)
- Chairman of the Mining and Metallurgical Engineering School-NTUA Committee for the receipt of commodities and services (2020-2021).
- Greek Organization of Academic Degrees Accreditation (2008-2015)

- Administration Board of NTUA (1995-96)
- NTUA Board of Undergraduate Studies (1996-2000)
- Economic administrator of the Section “Metallurgy and Materials Science” (1996-2003)
- Greek Central Examination Board (1996-8, 2003-4) for students’ admission into the Universities from foreign universities and Greek Technology Institutions
- 1996-2014 member of the Board of Directors of the Scientific Society of the Mineral Wealth Technologists of Greece
- 1998-2000, member of the Administrative Board of the Greek Association of Mining Engineers and Metallurgists