

## Prof. Anthimos Xenidis

### Detailed Curriculum Vitae

#### PERSONAL INFORMATION

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SURNAME	Xenidis
NAME	Anthimos
DATE OF BIRTH	13-1-1961
PLACE OF RESIDENCE	Maroussi, Athens, Greece
e-mail	axen@metal.ntua.gr
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#### CURRENT POSITION(S)

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**08.2016 - TODAY** Professor on the “*Treatment of raw materials and wastes*” at School of Mining and Metallurgical Eng. (Laboratory of Metallurgy) / National Technical University of Athens (NTUA) / Greece

#### PREVIOUS POSITION(S)

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**08.2015 - 10.2018** CEO of LARCO SA (General Mining and Metallurgical Company, Ferronickel producer)

**07.2003- 08.2016** Associate, Assistant Professor and Lecturer (successive developments) / NTUA

**09.1996 - 07.2000** Adjunct Professor (PD 407/80 position equivalent to Associate Professor), Dept. of Mineral Resources Engineering / Technical University of Crete / Greece

**11.1980 - 07.2003** Research Associate, School of Mining and Metallurgical Eng. / NTUA

**09.1991 – 09.1997** Technical Manager and Deputy Head of Research Committee of NTUA

#### EDUCATION

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**01.1984 - 11.1988** School of Mining and Metallurgical Eng. (Lab. of Metallurgy), National Technical University of Athens, Greece, Ph.D. Thesis: “*Iron removal from iron - nickel - cobalt containing solutions by solvent extraction techniques*”, 10/10 (excellent)

**10.1978 - 10.1983** School of Mining and Metallurgical Eng. (Lab. of Metallurgy), National Technical University of Athens, Greece, Dipl. Eng. on Mining and Metallurgical Engineering, Diploma Thesis: “*Development of mathematical/computer models for simulation of metallurgical processes*”, 8.16/10 (3<sup>rd</sup> among 40 students)

#### FELLOWSHIPS, AWARDS AND DISTINCTIONS

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- Chair of the 2<sup>nd</sup> International Conference on Raw Materials and Circular Economy “RawMat2023”, to be held in Athens from August 28<sup>th</sup> to September 2<sup>nd</sup> 2023, organized by the Technical Chamber of Greece and the School of Mining and Metallurgical Engineering of the National Technical University of Athens.
- Chair of the International Conference on Raw Materials and Circular Economy “RawMat 2021”, held in Athens from September 5 to 9<sup>th</sup>, 2021 organized by the Technical Chamber of Greece, the School of Mining and Metallurgical Engineering of the National Technical University of Athens and the Greek Raw Materials Cluster (GRawMat) under the auspices of SEV Hellenic Federation of Enterprises.
- CEO of LARCO SA (General Mining and Metallurgical Company) a Ferronickel producer (2015-2018)
- Individuel expert for the “Study supporting the elaboration of guidelines for best risk management approaches in the extractive sector”, European Union, Directorate General Environment, 2021-2023
- Recipient of the 2010 Light Metals Best Paper Award for the paper entitled “Reductive Roasting and Magnetic Separation of Greek Bauxite Residue for its Utilization in Iron Ore Industry” presented in TMS 2009 Annual Meeting και Exhibition, San Francisco, California and published in Light Metals 2009 (Geoff

Barne, ed.)

- Invited as a **Global Expert** by Samarco in “Global Expert Panel on technological routes regarding the disposal reuse and reduction of slimes” held on 6<sup>th</sup> and 7<sup>th</sup> of December, 2010 in Belo Horizonte, Minas Gerais, Brazil, selected following an international experts mapping procedure.
- **National representative** in the ad-hoc group «**waste characterisation**» of the Technical Adaptation Committee (TAC) in the framework of mine waste directive 2006/21/EC.
- **Participation in CEN/TC292/WG8** for the preparation of the “**Overall guidance document for the characterization of wastes from the extractive industry**” to liaise with the Technical Adaptation Committee (TAC) of directive 2006/21/EC on the management of wastes from extractive industries.
- **National Representative** in the Technical Working Group for the revision of BREF document for the Best Available for the Management of Waste of Extractive Industry.
- Organisation of a **NATO CCMS Pilot Study** meeting focused on «Prevention and remediation of contaminated land in urban areas» held in Athens from July 5 to 7<sup>th</sup>, 2006 in the framework of the NATO CCMS Pilot Study on “*Prevention and Remediation Issues in Selected Industrial Sectors*”.
- Co-director and organiser of an **Advanced Research Workshop (ARW)** entitled «Environmental Security Threats in Urban Settings» held in Athens, June 8-9<sup>th</sup>, 2006
- **NATO/CCMS pilot studies fellowship** (1999-2002) entitled “Evaluation of remediation technologies for soils contaminated by heavy metals”.
- **National representative** in the NATO/CCMS pilot study “Evaluation of demonstrated and emerging technologies for the treatment of contaminated land and ground water (phase III)”.
- Participation in the International Scientific Committees and Advisory Committees of a number of conferences (SDIMI 2013, 4th Environmental Conference of Macedonia, 2nd International Symposium on Green Chemistry for Environment and Health, GeoCongress 2008, AMIREG 2009, 2006, 2004, REWAS 1999 and 2004, IBS 2003, etc.)
- Member of the editorial board of Minerals (MDPI) (2020-)
- Key reader of Metallurgical and Materials Transaction B since 2007
- Reviewer in several international journals (Journal of Hazardous Materials, Waste Management, Environmental Management, Journal of the Air and Waste Management Association, Water, Air and Soil Pollution, Minerals Engineering, Minerals Wealth, Water Research)
- Special Prize in the annual examinations awarded by the “Hellenic Mathematical Society” in 1977.
- Ranking 3rd among 40 successful candidates for the entry in the dept. of Mining and Metallurgical Engineering in 1978.
- Ranking 3rd in the first year, 1st in the second, 3rd in the third and 1st in the fifth among 45 students in the dept. of Mining and Metallurgical Engineering.
- Special prize of Technical Chamber of Greece, given to the three best students of each department (1983).
- Examiner at the Technical Chamber of Greece for graduates from the department of Mining and Metallurgical Engineering and Mineral Resources Engineering (1999, 2020-2021).
- Member of the Special Scientific Committee of the Technical Chamber of Greece for subjects concerning Education and Career of Mining and Metallurgical Engineers (1998-2000).
- Bodossakis foundation (1985 – 1986) for postgraduate studies.
- Greek State Scholarship Foundation for undergraduate studies (1978-1983).
- NATO/CCMS pilot studies fellowship (1999-2001) entitled “Evaluation of remediation technologies for soils contaminated by heavy metals”.

## PUBLICATIONS

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Prof. Xenidis has published 73 papers in scientific journals, 85 in conference proceedings, 25 abstracts in conference proceedings and 10 publications in several other media. He has written six (6) chapters in books.

The number of **citations** on his scientific work is **1737**, the **h-index** is **26** (Scopus) or 4106 and 32 respectively according to google scholar. Selected publications in journal and proceedings are given below:

### In Journals

- C. Mystrioti, **A. Xenidis**, N. Papassiopi, Synthesis of Iron Nanomaterials for Environmental Applications from Hydrometallurgical Liquors, *Minerals* 12, 556 (2022) <https://doi.org/10.3390/min12050556>
- C. Mystrioti, N. Papassiopi, **A. Xenidis**, Selective Recovery of Iron by Solvent Extraction from Ni-Laterite Leach Solutions, as Precursor for the Synthesis of High Added-Value Nanomaterials, *Circular Economy and Sustainability*, 2, 1575–1587 (2022). <https://doi.org/10.1007/s43615-021-00094-1>
- K. Karalis, N. Karalis, N. Karkalos, N. Ntallis, GSE Antipas, **A. Xenidis**, Three-dimensional computational fluid dynamics analysis of an electric submerged arc furnace, *Scientific Reports* 11 (1), 17637 <https://doi.org/10.1038/s41598-021-96085-1>
- C. Mystrioti, S. Koursari, **A. Xenidis**, N Papassiopi, Hexavalent chromium reduction by gallic acid, *Chemosphere* 273, 129737 <https://doi.org/10.1016/j.chemosphere.2021.129737>
- I.E. Zevgolis, C. Tsivavos, K. Papangelis, G. Gaidajis, **A. Xenidis**, Utilization of Bauxite Residue as a Liner: Permeability Improvement Using Additives, *Int. J. of Geosynth. and Ground Eng.* 7, 6 (2021). <https://doi.org/10.1007/s40891-020-00250-x>
- K. Betsis, A. Kourtis, E. Chatzitheodoridis, A. Xenidis, Corrosion of high purity magnesia refractories from iron-rich slags of ferronickel enrichment in OBM converters, Machines. Technologies. Materials. 14 (4), 177-180 <https://stumejournals.com/journals/mtm/2020/4/177>
- E. Karagianni, **A. Xenidis**, N. Papassiopi, Enhanced Hg removal from aqueous streams by sulfurized activated carbon products: Equilibrium and kinetic studies, *Water, Air, & Soil Pollution*, 231, 1-16 (2020) <https://doi.org/10.1016/j.apgeochem.2020.104759>
- C. Mystrioti, A. Ntrouka, S. Thymi, N. Papassiopi, **A. Xenidis**, Effect of limestone grain size on the mobility of green nanoiron suspension, *Applied Geochemistry*, 122,104759 (2020) <https://doi.org/10.1016/j.apgeochem.2020.104759>
- Toli, C. Mystrioti, **A. Xenidis**, N. Papassiopi, Continuous Flow Process for Cr(VI) Removal from Aqueous Solutions Using Resin Supported Zero-Valent Iron, *Bulletin of Environmental Contamination and Toxicology*, 106, 409-414 <https://doi.org/10.1007/s00128-020-02843-8>
- E. Tzamos, PN Gamaletsos, G. Grieco, M. Busolesi, **A. Xenidis**, A. Zouboulis, D. Dimitriadis, Y. Pontikes, A. Godelitsas, New Insights into the Mineralogy and Geochemistry of Sb Ores from Greece, *Minerals* 10(3) (2020) 236-252 <https://doi.org/10.3390/min10030236>
- K. Kollias, E. Mylona, K. Adam, M. Chrysochoou, N. Papassiopi, A. Xenidis, Characterization of phosphate coating formed on pyrite surface to prevent oxidation, *Applied Geochemistry* 110 (2019) 104435 <https://doi.org/10.1016/j.apgeochem.2019.104435>
- Mystrioti, N. Papassiopi, A. Xenidis, K. Komnitsas, Counter-current leaching of low-grade laterites with hydrochloric acid and proposed purification options of pregnant solution, *Minerals* 8(12) (2018) 599-620 <https://doi.org/10.3390/min8120599>
- Toli, A. Varouxaki, C. Mystrioti, **A. Xenidis**, N. Papassiopi, Green Synthesis of Resin Supported Nanoiron and Evaluation of Efficiency for the Remediation of Cr (VI) Contaminated Groundwater by Batch Tests, *Bulletin of environmental contamination and toxicology* 101(6) (2018) 711-717 <https://doi.org/10.1007/s00128-018-2425-2>
- K. Kollias, E. Mylona, N. Papassiopi, **A. Xenidis**, Development of silica protective layer on pyrite surface: a column study, *Environmental Science and Pollution Research* 25(27) (2018) 26780-26792 <https://doi.org/10.1007/s11356-017-0083-2>
- K. Karalis, N. Karkalos, GSE Antipas, **A. Xenidis**, Pragmatic analysis of the electric submerged arc furnace continuum, *Royal Society open science* 4 (9) (2017) 170313 <https://doi.org/10.1098/rsos.170313>

**170313**

- A. Toli, K. Chalastara, C. Mystrioti, **A. Xenidis**, N. Papassiopi, Incorporation of zero valent iron nanoparticles in the matrix of cationic resin beads for the remediation of Cr(VI) contaminated waters, *Environmental Pollution*, 214 (2016) 419-429 <https://doi.org/10.1016/j.envpol.2016.04.034>
- E. Pantazopoulou, O. Zebiliadou, G. Bartzas, A. Xenidis, A. Zouboulis, K. Komnitsas, Industrial solid waste management in Greece: The current situation and prospects for valorization, *Journal of Solid Waste Technology & Management* 41(4) (2015) 383-394.
- K. Karalis, D Dellis, G.S.E. Antipas, **A. Xenidis**, Bona-fide method for the determination of short range order and transport properties in a ferro-aluminosilicate slag, *Scientific Reports*, 6, 30216 (2016) <https://doi.org/10.1038/srep30216>
- L. Maritsa, P.E. Tsakiridis, N.S. Katsiotis, H. Tsiavos, D. Velissariou, **A. Xenidis**, M. Beazi-Katsioti, Evaluation of Spilitic Sand as an Alternative Material for the Construction of Landfill Bottom Liners, *Journal of Environmental Chemical Engineering*, 4(2) (2016) 1818-1825 <http://dx.doi.org/10.1016/j.jece.2016.03.011>
- K. Karalis , N. Karkalos, N. Cheimarios, G.S.E. Antipas, **A. Xenidis**, A.G. Boudouvis, A CFD analysis of slag properties, electrode shape and immersion depth effects on electric submerged arc furnace heating in ferronickel processing, *Applied Mathematical Modelling*, 40 (21-22) (2016) 9052-9066 <http://dx.doi.org/10.1016/j.apm.2016.05.045>
- C. Mystrioti, T. D. Xanthopoulou, P. Tsakiridis, N. Papassiopi, **A. Xenidis**, Comparative evaluation of five plant extracts and juices for nanoiron synthesis and application for hexavalent chromium reduction, *Science of the Total Environment*, 539 (2016) 105-113 <https://doi.org/10.1016/j.scitotenv.2015.08.091>
- S. Varitis, E. Pavlidou, P. Kavouras, G. Vourlias, K. Chrissafis, **A. Xenidis**, Th. Karakostas, Devitrification routes of a vitrified chromium-loaded ash, *Journal of Thermal Analysis and Calorimetry*, 121(1) (2015) 203-208 <https://doi.org/10.1007/s10973-015-4539-7>
- E Marnika, E Christodoulou, **A. Xenidis**, Sustainable development indicators for mining sites in protected areas: Tool development, ranking and scoring of potential environmental impacts and assessment of management scenarios, *Journal of Cleaner Production*, 101 (2015) 59-70 <https://doi.org/10.1016/j.jclepro.2015.03.098>
- P Kavouras, E Pantazopoulou, S Varitis, G Vourlias, K Chrissafis, **A. Xenidis**, Incineration of tannery sludge under oxic and anoxic conditions: Study of chromium speciation, *Journal of hazardous materials* 283 (2015) 672-679 <https://doi.org/10.1016/j.jhazmat.2014.09.066>
- I Panagiotakis, D Dermatas, C Vatseris, M Chrysochoou, N Papassiopi, **A. Xenidis**, K. Vaxevanidou, Forensic investigation of a chromium (VI) groundwater plume in Thiva, Greece, *Journal of hazardous materials* 281 (2015) 27-34 <https://doi.org/10.1016/j.jhazmat.2014.09.048>
- Dermatas, T. Mpouras, M. Chrysochoou, I. Panagiotakis, C. Vatseris, N. Linardos, E. Theologou, N. Boboti, **A. Xenidis**, N. Papassiopi, L. Sakellariou. Origin and concentration profile of chromium in a Greek aquifer, *Journal of hazardous materials* 281 (2015) 35-46 <https://doi.org/10.1016/j.jhazmat.2014.09.050>
- I Panagopoulos, A Karayannis, K Kollias, **A. Xenidis**, N Papassiopi, Investigation of potential soil contamination with Cr and Ni in four metal finishing facilities at Asopos industrial area, *Journal of hazardous materials* 281, 2015, 20-26 <https://doi.org/10.1016/j.jhazmat.2014.07.040>
- C Mystrioti, N Papassiopi, **A. Xenidis**, D Dermatas, M Chrysochoou Column study for the evaluation of the transport properties of polyphenol-coated nanoiron, *Journal of hazardous materials* 281 (2015) 64-69 <https://doi.org/10.1016/j.jhazmat.2014.05.050>
- C Mystrioti, D Sparis, N Papasiopi, **A. Xenidis**, D Dermatas, M Chrysochoou, Assessment of Polyphenol Coated Nano Zero Valent Iron for Hexavalent Chromium Removal from Contaminated Waters, *Bulletin of environmental contamination and toxicology*, 94(3) 2015) 302-320 <https://doi.org/10.1007/s00128-015-1450-0>

[/10.1007/s00128-014-1442-z](https://doi.org/10.1007/s00128-014-1442-z)

- N Papassiopi, C Zaharia, **A Xenidis**, K Adam, A Liakopoulos, I Romaidis, Assessment of contaminants transport in a watershed affected by acid mine drainage, by coupling hydrological and geochemical modeling tools *Minerals Engineering* 64 (2014) 78-91 <https://doi.org/10.1016/j.mineng.2014.04.002>
- K Kollias, E Mylona, N Papassiopi, **A Xenidis**, Conditions favoring the formation of iron arivphosphate coatings on the pyrite surface, *Desalination and Water Treatment*, 56(5) (2015) 1274-1281 <https://doi.org/10.1080/19443994.2014.958537>
- C Mystrioti, **A Xenidis**, N Papassiopi, Reduction of hexavalent chromium with polyphenol-coated nano zero-valent iron: column studies, *Desalination and Water Treatment*, 56(5), 2015, 1162-1170 <https://doi.org/10.1080/19443994.2014.941298>
- C Mystrioti, **A Xenidis**, N Papassiopi, Application of Iron Nanoparticles Synthesized by Green Tea for the Removal of Hexavalent Chromium in Column Tests, *Journal of Geoscience and Environment Protection* 2(04) (2014) 28-36 <http://dx.doi.org/10.4236/gep.2014.24005>
- K Kollias, E Mylona, K Adam, N Papassiopi, N Papassiopi, **A Xenidis**, Suppression of Pyrite Oxidation by Surface Silica Coating, *Journal of Geoscience and Environment Protection* 2(04) (2014), 1274-1281 <http://dx.doi.org/10.4236/gep.2014.24006>
- N. Papassiopi, F. Pinakidou, M. Katsikini,, G.S.E. Antipas, C. Christou, **A. Xenidis**, E.C. Paloura, A XAFS study of plain and composite iron(III) and chromium(III) hydroxides, *Chemosphere* 111 (2014) 169–176 <https://doi.org/10.1016/j.chemosphere.2014.03.059>
- G.S.E. Antipas, N. Papassiopi and **A. Xenidis**, On the elusive anti-bayerite structure, *Solid State Ionics*, 255 (2014) 65–73 <https://doi.org/10.1016/j.ssi.2013.11.052>
- K. Karalis, L. Temleitner, G.S.E. Antipas, L. Pusztai, **A. Xenidis**, Experimentally constrained atomic order probing of a Si-Al composite glass, *Philosophical Magazine*, 94(8) (2014) 792-800 <https://doi.org/10.1080/14786435.2013.863438>
- G S E Antipas, L Temleitner, K Karalis, L Pusztai and **A Xenidis**, Atomic order and cluster energetics of a 17 wt% Si-based glass versus the liquid phase, *J. Phys.: Condens. Matter* 25 (2013) art. no. 454206 (7pp) <http://dx.doi.org/10.1088/0953-8984/25/45/454206>
- D. Sparis, Ch. Mystrioti, **A. Xenidis**, N. Papassiopi, Reduction of nitrate by copper coated ZVI nanoparticles, *Desalination and Water Treatment*, 51(13-15) (2013) 2926-2933 <https://doi.org/10.1080/19443994.2012.748303>
- G.S.E. Antipas, L. Temleitner, K. Karalis, S. Kohara, L. Pusztai, **A. Xenidis**, A containerless study of short-range order in high-temperature Fe-Si-Al-Ca-Mg-Cr-Cu-Ni oxide systems, *Journal of Molecular Structure*, 1019 (2012) 151-158 <https://doi.org/10.1016/j.molstruc.2012.03.056>
- N. Papassiopi, Z. Gaitanarou, **A. Xenidis**, Stabilization of chromium in the form of mixed Fe(III)-Cr(III) hydroxides, *Fresenius Environmental Bulletin*, 21(8B) (2012) 2399-2405 <https://doi.org/10.1016/j.molstruc.2012.03.056>
- E. Mylona, **A. Xenidis**, Natural formation of geochemical barriers at the sulphidic tailings disposal areas, *Minerals Wealth*, 156 (2010) 19-34
- **A. Xenidis**, C. Stouraiti, N. Papassiopi, Stabilization of Pb and As in soils by applying combined treatment with phosphates and ferrous iron, *Journal of Hazardous Materials*, 177 (2010) 929–937 <https://doi.org/10.1016/j.jhazmat.2010.01.006>
- N. Papassiopi, A. Kontoyanni, K. Vaxevanidou, **A. Xenidis**, Assessment of chromium biostabilization in contaminated soils using standard leaching and sequential extraction techniques, *Science of the Total Environment*, 407(2) (2009) 925-936 <https://doi.org/10.1016/j.scitotenv.2008.09.020>
- A. Krestou, **A. Xenidis**, D. Panias, Mechanism of aqueous uranium (VI) uptake by hydroxyapatite, *Minerals Engineering*, 17(3) (2004) 373-381 <https://doi.org/10.1016/j.mineng.2003.11.019>

- A.Krestou, **A. Xenidis**, D. Panias, "Uranium removal from aqueous solutions using synthetic hydroxyapatite", *honorary edition for Prof. A. Kontopoulos*, NTUA, 2004, pp. 135-145.
- A. Krestou, **A. Xenidis**, D. Panias, Mechanism of aqueous uranium (VI) uptake by natural zeolitic tuff, *Minerals Engineering*, 16(12) (2003) 1363-1370 <https://doi.org/10.1016/j.mineng.2003.08.012>
- E. Mylona, **A. Xenidis**, I. Paspaliaris, M. Csövári and G. Németh: Application of dry covers for the closure of tailings facilities, *Land Contamination and Reclamation*, 15(2) (2007) 163-182 <http://www.epppublications.com/home/land-contamination-reclamation/volume-15>
- **A. Xenidis**, E. Mylona, A.D. Harokopou: Enhancement of hardpan formation by amending sulphidic tailings with limestone or fly ash, *Land Contamination and Reclamation*, 15(3) (2007) 359-373. <http://www.epppublications.com/home/land-contamination-reclamation/volume-15>
- E. Mylona, **A. Xenidis**, G. Gaidajis, K. Adam: Geochemical characteristics of a sulphidic waste rock and implications for environmental rehabilitation, *The European Journal of Mineral Processing and Environmental Protection*, 5(2), 2005, pp.200-211.
- **A. Xenidis**, A.D. Harokopou, E. Mylona and G. Brofas: Modifying Alumina Red Mud to Support a Revegetation Cover, *Journal of Metals*, 57(2), 2005, pp. 42-46. <https://doi.org/10.1007/s11837-005-0214-y>
- **A. Xenidis**, A.D. Harokopou and E. Mylona: Evaluation of various additives as ameliorants to Alumina Red Mud, *honorary edition for Prof. A. Kontopoulos*, 2004, pp. 279-291.
- K. Komnitsas, **A. Xenidis**: Acid Mine Drainage at Mining Sites: Generation, Impacts and Control Techniques, *Technical Annals*, V, 1-2, 2001, pp. 19-36
- P. Theodoratos, N. Papassiopi and **A. Xenidis**: Evaluation of monobasic calcium phosphate for the immobilization of heavy metals in contaminated soils from Lavrion, *Journal of Hazardous Materials*, B94, 2002, pp. 135-146, [https://doi.org/10.1016/S0304-3894\(02\)00061-4](https://doi.org/10.1016/S0304-3894(02)00061-4)
- **A. Xenidis**, A. Peppas, I. Paspaliaris: Use of lead metallurgy slags in structural works, *Mineral Wealth*, 122, 2002, pp. 7-26 (in Greek).
- **A. Xenidis**, A. Moirou, I., Paspaliaris: Reactive materials and attenuation processes for permeable reactive barriers, *Mineral Wealth*, 123, 2002, σελ. 35-48.
- **A. Xenidis**, E. Mylona, I. Paspaliaris: Potential use of lignite fly ash for the control of acid generation from sulphidic wastes, *Waste Management*, 22(6), 2002, pp. 631-641, [https://doi.org/10.1016/S0956-053X\(01\)00053-8](https://doi.org/10.1016/S0956-053X(01)00053-8)
- **A. Xenidis**, C. Stouraiti, A. Moirou: The effectiveness of municipal sewage sludge application on the stabilization of Pb, Zn and Cd in a soil contaminated from mining activities, *Journal of Environmental Science and Health, Part A-Toxic/Hazardous Substances & Environmental Engineering*, 36(6), 2001, pp. 971-986. <https://doi.org/10.1081/ESE-100104125>
- **A. Xenidis**, N. Papassiopi, K. Komnitsas: Carbonate-rich mining tailings in Lavrion: risk assessment and proposed rehabilitation schemes, *Advances in Environmental Research*, 7(2), 2003, pp 207-222, [https://doi.org/10.1016/S1093-0191\(02\)00017-5](https://doi.org/10.1016/S1093-0191(02)00017-5)
- **A. Xenidis**, K. Komnitsas, S. Tabouris, A. Kontopoulos: Composite cover for the prevention of acid mine drainage, *Mining Environmental Management*, 8(6), 2000, pp. 14-18.
- C. Stouraiti, **A. Xenidis**, I. Paspaliaris: Reduction of Pb, Zn and Cd availability from tailings and contaminated soils by the application of lignite fly ash, *Water, Air and Soil Pollution*, 137(1), 2002, pp. 247-265. <https://doi.org/10.1023/A:1015507017799>
- A. Moirou, **A. Xenidis**, I. Paspaliaris: Stabilisation of Pb, Zn and Cd contaminated soil by the means of natural zeolite, *Journal of soil and sediment contamination*, 10(3), 2001, pp. 251-267. <https://doi.org/10.1080/20015891109248>
- E. Mylona, **A. Xenidis**, I. Paspaliaris: Inhibition of acid generation from sulphidic wastes by addition

of small amounts of limestone, *Minerals Engineering*, 13(10-1), 2000, pp.1161-1175. [https://doi.org/10.1016/S0892-6875\(00\)00099-6](https://doi.org/10.1016/S0892-6875(00)00099-6)

- P. Theodoratos, A. Moirou, **A. Xenidis**, I. Paspaliaris: The use of municipal sewage sludge for the stabilisation of soil contaminated by mining activities, *Journal of Hazardous materials*, 77(1-3), 2000, pp.177-191. [https://doi.org/10.1016/S0304-3894\(00\)00243-0](https://doi.org/10.1016/S0304-3894(00)00243-0)
- S. Tampouris, D. Kolitsa, **A. Xenidis**, K. Komnitsas: Evaluation of the environmental impact from sulphidic wastes in Lavrion, *Mineral Wealth*, 114, 2000, pp. 19-32 (in Greek, English abstract).
- C. Stouraiti, **A. Xenidis**, I. Paspaliaris: Use of inorganic and organic additives for stabilisation of tailings and contaminated soils, under publication in the *honorary edition for Prof. Papageorgakis*, Athens, 2000.
- A. Kontopoulos, K. Komnitsas, **A. Xenidis**, N. Papassiopi: "Environmental characterisation of Lavrion site and remediation perspectives", *Honorary edition for Prof. Konofagos*, Athens, 1998, pp. 195-206 (in Greek).
- I. Paspaliaris, N. Papassiopi, **A. Xenidis**, K. Komnitsas: Remediation of land contaminated by mining and metallurgical activities in Lavrion area, *Mining and Metallurgical Annals*, 9(1-2), 1999, pp. 31-54.
- **A. Xenidis**, C. Stouraiti, I. Paspaliaris: Stabilisation of oxidic tailings and contaminated soils by calcium oxyphosphate addition: the case of Monteveccchio site (Sardinia, Italy), *Journal of Soil Contamination*, 8(6), 1999, pp. 681-697. <https://doi.org/10.1080/1058833991339540>
- **A. Xenidis**, T. Lilis, I. Halikia: Lead dissolution from lead smelter slags using magnesium chloride solutions, *Aus. IMM*, 304(2), 1999, pp. 37-44. <https://ausimm.com/product/lead-dissolution-from-lead-smelter-slags-using-magnesium-chloride-solutions/>
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## MEMBERSHIPS & REVIEWING ACTIVITIES

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- **Evaluation of FP7 proposals** (Call FP7-SME-2010-1, FP7-SME-2011, FP7-SME-2012, FP7-SME-2013 (Research for SMEs Section Environment), FP7-ENV-2012, FP7-ENV-EcoInnovation-2012)
- Evaluation of proposals of the **Hellenic Foundation for Research and Innovation**, 2nd Call for H.F.R.I. Research Projects to Support Post-Doctoral Researchers 2019
- Evaluation of proposals of the Greek Research Programme “**Research-Create-Innovate**” (2017)
- Evaluation of proposals of Research Fund for Coal and Steel (**RFCS**)-Coal Session, Years 2011, 2012, 2013, 2015.
- Evaluation of research proposals for young scientists of Poland: Programme **LIDER VI** (2015)
- Evaluation of a research proposal of Flemish government: Programme “**Industrieel Onderzoeksfonds**” (IOF) (2015)
- Evaluation of proposals of the SmallGrant Scheme of **Polish-Norwegian Research Programme** - NCBR Poland (Feb. 2013 – Mar. 2013)

- Evaluation of proposals of the **Poland-Norway cooperation programme**: The Core Call 2012 Scheme - NCBR Poland (Dec. 2012 – Jan. 2013)
- Evaluation of proposals of the competition programme “**Greece Innovates**” of Eurobank in partnership with the Hellenic Federation of Enterprises (SEV) (2011)
- Evaluation of proposals of the **Greek operational programme of Education and Lifelong learning** (Summer students training activities) (2010)
- Evaluator of **Research and Development Projects of Romania** (Call for Proposals “ POSCCE-A2-O2.1.2-2009-2 - Complex research projects fostering the participation of high-level international experts”) in the framework of Sectoral Operational Programme “Increase of the Economic Competitiveness” year 2009.
- Evaluation of research proposals of **Romanian Programmes “Large RD Infrastructures and “international cooperation (Romania-Norway-Iceland-Lichtenstein)”** (2014-2016)
- Evaluator of Infrastructure Research and Development **Projects of Romania** (Call for Proposals “SOPIEC-A2-O2.2.1-2007-1+Capacities-I-2007-2”) in the framework of Sectoral Operational Programme “Increase of the Economic Competitiveness”, year 2009
- Evaluation in R&D projects funded by the **Greek General Secretariat for Research and Technology** (1992-1993 and 2005).
- Evaluation of R&D projects funded by the **Research Promotion Foundation of Cyprus** (2001-2003, 2005-2007).

## TEACHING ACTIVITIES

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- 2003 - today** Professor on “**Treatment of raw materials and wastes**”, NTUA/Greece, Lab. of Metallurgy. Teaching: Extractive Metallurgy, Iron and Steel Making, Hydrometallurgy, Environment II in the metallurgical and materials technology sectors, Design of pollution control systems.
- 1996 - 2000** Adjunct Professor (Assoc. Professor) at **Technical University of Crete** / Department of Minerals Resources Eng. /Greece. Teaching: Environmental protection

## SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

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**2010 - today** Number of PhDs: 9, Number of Postdocs: 4, NTUA/Greece, Laboratory of Metallurgy

## RESEARCH GRANTS

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- 2022-2023 **GRAPHITE**-Development of sustainable and innovative methods for the recycling of graphite waste into high added value products, Partnership Agreement for the Development Framework 2014-2020, Attica Operational Programme co-funded by the European Structural and Investment Funds (ESIF), 121.500 € (NTUA), Coordinator and Scientific Responsible
- 2022-2024 **ENOPAL**-Optimization of energy efficiency of aluminum electrolysis by controlling electrolyte superheat funded by Greece 2.0-National Recovery and Resilience Plan-European Union, NextGenerationEU program, 375.000 € (NTUA), Scientific Responsible
- 2022-2024 **CHROMEUpgrade**- Development of optimised processes for exploration of chromite ores and Platinum Group Metals, ore enrichment and exploitation of the extraction and enrichment by-products, funded by Greece 2.0-National Recovery and Resilience Plan-European Union, NextGenerationEU program, 302.000 € (NTUA), Scientific Responsible
- 2021 - 2023 **LeachEV**-Investigation of leaching mechanisms for the extraction of metals from electric vehicle batteries and other rechargeable batteries using inorganic agents, funded by NTUA Research Committee, Fundamental Research Programme, 2020, 15.000 €) **Scientific responsible**
- 2020 Extraction and recovery of Sb from galena concentrate, Hellenic Gold SA, (12.000 €) **Scientific responsible**
- 2013 - 2015 Development of Mathematical Predictive Model coupled with Neural Network smoothing algorithms to Optimize Operating Conditions and Improve Energy Efficiency of Rotary Kiln and Electric Arc Furnaces in Ferronickel Production Plants (**ManFeNi**), NSRF-Sectoral Operational

*Prog. for Competitiveness and Entrepreneurship (SOPCE)-SYNERGASIA II, 320.981,40 € (NTUA), Coordinator and Scientific Responsible of NTUA team*

- 2012 - 2015 Development of an integrated methodology for the management, treatment and valorisation of hazardous waste (WasteVal), *NSRF-Sectoral Operational Programme for Education and Lifelong Learning (SOPELL) (THALIS)*, 170.589 € (NTUA), **Coordinator and Scientific Responsible of NTUA team**
- 2011 - 2015 Chromium in Asopos groundwater system: remediation technologies and measures (LIFECHARM), *LIFE+Environment, Scientific (co)responsible*
- 2010 – 2013 Synthesis and use of nanomaterials for the remediation of contaminated soils and groundwater, *SOPELL / HERACLITUS II, Coordinator and Scientific Responsible*
- 2011 – 2012 Investigation of mechanisms for contaminants removal from aqueous solutions using organophilic bentonite, *NTUA / PEVE 2010, Scientific Responsible (SR)*
- 2006 – 2007 Use of bauxite residues for carbon sequestration, *GSRT/International Cooperation, Scientific Responsible*
- 2005 – 2007 Iron production from bauxite residues, *GSRT / PAVET 2005, Scientific Responsible*
- 2005 – 2007 Hard pan formation in sulphidic tailings, *SOPELL / PYTHAGORAS II, Scientific Responsible*
- 2003 – 2006 Rehabilitation of abandoned bauxite surface mines using alumina red mud as filler (REFILL), LIFE Environment, **Principle investigator (PI)**
- 2002 – 2005 Sustainable Improvement in Safety of Tailings Facilities (TAILSAFE), *EC-FP5-Environment, Principle investigator*
- 2001 – 2005 The treatment of mine waste to achieve cost effective engineering closure of tailings dams (CLOTADAM), *EC-FP5-Growth, Senior researcher*
- 2001 – 2003 Utilization of bauxite red mud for the development of a vegetation cover (AXERIL), *PAVET, Principle investigator*
- 2000 - 2003 Long-term performance of permeable reactive barriers used for the remediation of contaminated groundwater (PEREBAR), *EC FP5 – Environment, Principle investigator*
- 1997 - 2000 Innovative industrial technologies for the rehabilitation of land contaminated from polymetallic sulphide mining and processing operations – ROLCOSMOS, *EC BRITE/EURAM, Principle investigator*
- 1997 – 1998 Chromium extraction from leather ash combustion residues, Hellenic Leather Center, **Principle investigator**
- 1993 - 1995 Biorehabilitation of Acid Mine Drainage by accelerated bioleaching, *EC Environment, Principle investigator*
- 1984 - 1987 Sulphuric Acid Laterites Leaching at Ambient Temperature, *GSRT / PAVE, Principle investigator*
- 1984 - 1987 Development of Industrial Process for Sulphuric Acid Laterites Leaching, *GSRT / PAVE, PI*