

## PERSONAL INFORMATION

## Iuliu BOBOS



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## WORK EXPERIENCE

2017- 2021: Director Master Course of Geomaterials and Geological Recourses  
2014-2018: Director of PhD Program of Environmental Science and Technology  
2008: Associate Professor, Porto University, (permanent position)  
2005: Assistant Professor, Porto University, (permanent position)  
Previous positions (institutions, dates in reverse Chronological order):  
2001- 2005: Assistant Professor, University of Porto, Porto  
2001: Invited Professor, University of Aveiro, Department of Geosciences, Portugal  
2000: Invited Professor, “Louis Pasteur” University of Strasbourg, France  
1993-1995: Senior scientist II; Polytechnic University of Timisoara, (Laboratory of Mineralogy), Romania.  
1992-1995: Lecturer, University of Timisoara, Romania.  
1990-1992: Assistant; Polytechnic University of Timisoara, Romania.

## EDUCATION AND TRAINING

**2008: Dr. Sci. (Habilitation) in Geology:** Universidade do Porto, Portugal  
**2000: PhD in Geology:** Universidade do Porto, Portugal;  
**1994: PhD in Geology:** University “Babes-Bolyai” of Cluj-Napoca, Romania;  
**1991: Master degree:** Radioactive isotopes, Faculty of Physics, University Bucharest,  
**1984: Lic Eng Geology,** University Alex. I. Cuza-Iasi, Romania

## Professional honours, awards, fellowships

### Professional honours, awards and fellowships

**2023:** Editoril staff: Discover Minerlas, Springer Verlag  
**2023:** Editorial staff: Fronteirs in Earth Science, Economic Geology  
**2020:** Editorial staff: MINERALS Journal (MDPI Basel, Swiss)  
**1999, 2017:** Prizes of Romanian Academy for Earth Sciences (C. Munteanu- Murgoci and Ludovic Mrazec)  
**2010 -2011:** Visiting Professor, Arizona State University, U.S.A (6 months)  
**2007:** Visiting Exchange Scientist, U.S.G.S. - Denver, Boulder- U.S.A. (3 months)  
**2001:** Invited Professor, Universidade de Aveiro, Portugal (1 year)  
**2000:** Invited Professor, Universite Louis Pasteur- Strasbourg, France (1 year)  
**1998:** Research Fellowship : NATO (6 months)  
**1995-1997:** Cientista Convidado: Portuguese Foundation for Science (2 years)

## Courses taught and other services provided to students

### Courses taught

Professor chair of Crystallography - Mineralogy, Geochemistry, Geological Resources, Biogeochemistry, Environmental Geology  
Conducted and concluded of 3 post-doc, 4 PhD and 20 Master degrees thesis  
Ungoing : 4 PhD thesis with Government Scholarship (FCT Lisbon) and 2 Master degree

thesis

## Memberships

Clay Minerals Society, Mineralogical Society, Society for Geology Applied, Geochemical Society

## PUBLICATIONS

- Books:** Grasu, C., Catana, C., **Bobos, I.** (1996) Petrography of the inner Carpathian flysch, Editura Tehnica, Bucuresti
- Grasu, C., Miclaus, C., **Bobos, I.** (1999) Molasse of the Eastern Carpathians: Sedimentology. Editura Tehnica, Bucuresti
- Grasu, C., Miclaus, C., Brânzila, M., **Bobos, I.** (2002) Sarmatianul din sistemul bazinelor de foreland ale Carpatilor Orientali, Edit. Tehnica, Bucuresti
- Grasu, C., Miclaus, C., Saramet, M., Scutaru, C., **Bobos, I.** (2004) Geology of the Comanesti Basin. Editura Tehnica, Bucuresti

## Chapter in Books:

- Guimarães V. and **Bobos, I.** (2021) Role of clay liners in the disposal of radioactive waste? In *Sorbents materials for controlling environmental pollution: current state and trends?* (ISBN 9780128200421) edited by Avelino Núñez-Delgado. Elsevier, <https://doi.org/10.1016/B978-0-12-820042-1.00011-0>
- Bobos, Iuliu** (2009) Nanogeosciences: a challenge for the 21st century. 28-43 pg. In *Mineralogy and Geodiversity*, Edited by N. Anastasiu, O. Dului, Romanian Academy. ISBN: 978-973-1867-4.

## Articles published

**58 articles ISI, WOS: HI=15 Scopus HI = 16; Google scholar: 19**  
<https://orcid.org/0000-0002-2575-1500>;  
<https://scholar.google.com/citations?user=2qcS8vsAAAAJ&hl=ro>  
 Web of Science ResearcherID A-6210-2008

## Articles published in ISI-Journals

**Mineralogy, Biomineralization, Geochemistry, Hydrothermal systems, Geomaterials**

- 58. Bobos, I.**, Srodon, J., Kounov, A., Senna, J., Szczerba, M., Ciesielska, Z, Nicolae, I. (2025). Mid-Cretaceous Alpine metamorphism of the Tisza Mega-Unit (Inner Carpathians) constrained by illite K–Ar dating and mineral metamorphic indicators. *International Journal of Earth Sciences* 114/5, 805-823.
- 57. Bobos, I.**, Bourdelle, F. (2025). Editorial for the Special Issue of Minerals, “Advances in Low-Temperature Mineralogy and Geochemistry”. *Minerals* 15(1)/84
- 56. Bobos, I.**, Stein, H., Deng., X.D., Sudo, M., Noronha, F. (2024). U–Pb LA-ICP-MS and Re–Os dating of wolframite and molybdenite: Constraints on multiple mineralization and cooling history (40Ar/39Ar) for the magmatic–hydrothermal system at Borralha, northern Portugal. *Ore Geology Review* 168, 106013
- 55. Bobos, I.** (2023). Hydrothermal injection breccia with organic carbon and nitrogen in the fossil hydrothermal system of Harghita Băi, East Carpathians, Romania: an example of magmatic and non-magmatic element mobility in the upper continental crust. *Geological Magazine*, 160(2), 274-291.
- 54. Bobos, I.**, de Sá, C. M., & Noronha, F. (2021). Mineralogy, Fluid Inclusions, and Oxygen Isotope Geochemistry Signature of Wolframite to Scheelite and Fe, Mn Chlorite Veins from the W,(Cu, Mo) Ore Deposit of Borralha, Portugal. *Minerals*, 12(1), 24.
- 53. Bobos, I.**, Madruga, M. J., Reis, M., Esteves, J., & Guimarães, V. (2021). Clay mineralogy insights and assessment of the natural (<sup>228</sup>Ra, <sup>226</sup>Ra, <sup>210</sup>Pb, <sup>40</sup>K) and anthropogenic (<sup>137</sup>Cs) radionuclides dispersion in the estuarine and lagoon systems along the Atlantic coast of Portugal. *Catena*, 206, 105532.
- 52. Bobos, I.**, Gomes, C. (2021). Mineralogy and Geochemistry (HFSE and REE) of the Present-Day Acid-Sulfate Types Alteration from the Active Hydrothermal System of Furnas Volcano, São Miguel Island, The Azores Archipelago. *Minerals*, 11(4), 335.
- 51. Guimarães, V.**, **Bobos, I.** (2021). Role of clay barrier systems in the disposal of radioactive waste. In *Sorbents Materials for Controlling Environmental Pollution* (pp. 513-541). Elsevier.
- 50. Bobos, I.** (2021) Hydrothermal breccia with organic and nitrogen in the fossil hydrothermal system of Harghita Bai, East Carpathians, Romania. *Journal of Volcanology and Geothermal Research* (under review)
- 49. Bobos, I.**, Madruga, M.J., Reis, M., Esteves, J., Guimarães, V. (2021) Clay mineralogy insights and assessment of the natural (<sup>228</sup>Ra, <sup>226</sup>Ra, <sup>210</sup>Pb, <sup>40</sup>K) and anthropogenic (<sup>137</sup>Cs) radionuclides dispersion in the estuarine and lagoon systems along the Atlantic coast. *Catena* (accepted) IF 4.33
- 48. Guimarães, V.**, **Bobos, I.** (2021) Role of clay barrier systems in the disposal of radioactive waste. In: *Sorbents Materials for Controlling Environmental Pollution*. Editor: Avelino Nunes Delgado, 513-541, <https://doi.org/10.1016/B978-0-12-820042-1.00011-0>

47. **Bobos, I.,** Gomes, C. (2021) Mineralogy and geochemistry (HFSE and REE) of the present-day acid-sulfate types alteration from the active hydrothermal system of Furnas volcano, São Mi-guel Island, The Azores Archipelago. *Minerals*, In: *Hydrothermal Alteration and Associated Phenomena at Active Volcano: Mineralogy, Texture and Isotope Geochemistry*, Guest Editor: M. Piochi, 11, 335. <https://doi.org/10.3390/min11040335> IF 2.35
46. Marques de Sá C., Noronha, F., Cardelach, E., **Bobos, I.** (2019) Fluid Inclusion and (S, C, O, Pb) Isotope Study of Pb-Zn-(Cu-Ag) Hydrothermal Veins from Central and Northern Portugal – Metallogenic Implications. *Ore Geology Rev.*, 112, <https://doi.org/10.1016/j.oregeorev.2019.103043> IF 3.89
45. **Bobos, I.** (2019) Corrigendum: Nanoscale coexisting phases of K-I and NH<sub>4</sub>K-I, and NH<sub>4</sub>I-S clays: An organic nitrogen contribution in the Harghita Băi, E-Carpathians, Romania. *Clay Minerals*, 54, 2, 227. <https://doi.org/10.1180/clm.2019.1611>. IF.187
44. **Bobos, I.** (2019) Nanoscale coexisting phases of K-I and NH<sub>4</sub>K-I, and NH<sub>4</sub>I-S clays: An organic nitrogen contribution in the Harghita Băi, E-Carpathians, Romania. *Clay Minerals*, 54, 1, 27-40, <https://doi.org/10.1180/clm.2019.4> IF 1.87
43. **Bobos, I.,** Noronha, F., Mateus, A. (2018) Fe-, Fe,Mn- and Fe,Mg-chlorite: A genetic linkage to W, (Cu,Mo) - mineralization in the magmatic-hydrothermal system of Borralha, Northern Portugal. *Mineralogical Magazine*, 82(S1), S259–S27 IF 1.90 <https://doi.org/10.1180/minmag.2017.081.104> IF 1.83
42. Jiménez-Jiménez, J., Algarra, M., Guimarães, V., **Bobos, I.,** Rodríguez-Castellón, E. (2017) Application of functionalized pillared porous phosphate heterostructures for removal of textile dyes from wastewater. *Materials*, 10, 1-11. **IF 2.65** IF 2.78
41. **Bobos, I.,** Williams L.B. (2017) Boron, lithium and nitrogen isotope geochemistry of NH<sub>4</sub>-illite clays in the fossil hydrothermal system of Harghita Băi, Eastern Carpathians, Romania, *Chemical Geology*, 473, 22-38, IF 3.89 <https://doi.org/10.1016/j.chemgeo.2017.10.005> IF 3.38
40. Durães, N., **Bobos, I.,** Ferreira da Silva, E. (2017) Speciation and precipitation of heavy metals in the acid mine waters from the Iberian Pyrite Belt (Portuguese sector), *Environmental Science and Pollution Research*, 24(5):4562- 4576) <https://doi.org/10.1007/s11356-016-8161-4> **IF 2.74**
39. Jaques, L., Noronha, F., Liewig, N., **Bobos, I.** (2016) Paleofluids circulation associated with the Gerês late-orogenic granitic massif, Northern Portugal, *Chemie der Erde*, 76, 659-676 <http://dx.doi.org/10.1016/j.chemer.2016.09.003> **IF 1.**
38. Guimarães V, Rodríguez-Castellón, E., Algarra M., **Bobos, I.** (2016) Influence of pH, layer charge location and crystal thickness distribution on U(VI) sorption onto heterogeneous dioctahedral smectite, *Journal of Hazardous Materials*, 317, 246-258., <http://dx.doi.org/10.1016/j.hazmat.2016.05.060> **IF 6.06**
37. Guimarães V, Rodríguez-Castellón, E., Algarra M., **Bobos, I.** (2016) Kinetics of uranyl ions sorption on heterogeneous smectite structure at pH 4 and 6 using a continuous stirred flow-through reactor. *Applied Clay Science*, **134**, 71-82. <http://dx.doi.org/10.1016/j.clay.2016.03.028> **IF 3.10**
36. Durães, N., **Bobos, I.,** Ferreira da Silva, E., Dekayir, A. (2015) Copper, zinc, and lead biogeochemistry in aquatic and land plants from the Iberian Pyrite Belt (Portugal) and North of Morocco mining areas. *Environmental Science and Pollution Research*, 22, 2087-2105. **IF 2.74**
35. Nicolae, I., Seghedi, I., **Bobos, I.,** Azevedo, M.R., Ribeiro, S., Tatu, M. (2015) Permian volcanic rocks from the Apuseni Mountains (Romania): Geochemistry and tectonic constraints. *Chemie der Erde*, 74, 125-137. **IF 1.62**
34. Guimarães, V., Azenha, M., Rocha, F., Silva, F., **Bobos, I.** (2015) Influence of pH, concentration and ionic strength during batch and flow-through continuous stirred reactor experiments of Si<sup>2+</sup>-adsorption onto montmorillonite. *Journal of Radioanalytical and Nuclear Chemistry*, 303, 2243-2255, **IF 0.98**
33. Ribeiro, M.A., Ramos, R., **Bobos, I.** (2015) Deformation-blastesis relationships in parautochthonous and autochthonous units in NW Iberia (North Portugal): Implication for the thermal evolution of the Variscan belt. *International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management*, SGEM, 2-s2.0-8494641232 **IF 0.35**
32. Durães, N., Ferreira da Silva, E., **Bobos, I.** (2014) Bioacumulação e fracionamento das Terras Raras em plantas recolhidas em áreas mineiras: comparação entre dois ambientes geológicos distintos. *Comunicações Geológicas de Portugal*, 101, 987-991. **IF 0.**
31. Lopes, A., Hinzmann, M., **Bobos, I.,** Lopes-Lima, M., Ferreira, S., Domingues, B., Machado, J. (2014) Functional studies on the shell matrix of *Anodonta cygnea*. *Nautilus*, 128, 4, 105-113. **IF 0.65**
30. Lopes, A., Lopes-Lima, M., Ferreira, J., Araujo, S., Hinzmann, M., Oliveira, J., Rocha, A., Domingues, B., **Bobos, I.,** Machado, J. (2014) Biomineralization Studies on Cellulose Membrane Exposed to Biological Fluids of *Anodonta cygnea*. *Journal Membrane Biology*, 247, 501–514. **IF 2.17.** <https://doi.org/10.1007/s00232-014-9660-1>
29. Durães, N., Ferreira da Silva, E., **Bobos, I.,** Ávila, P. (2014) Rare earth elements fractionation in endemic vegetation from the Moncorvo iron mines, NE Portugal. *Procedia Earth and Planetary Science*, 10, 376-382. **IF 0.42**
28. Hinzmann, M., Lopes-Lima, M., **Bobos, I.,** Ferreira, J., Domingues, B., Machado, J. (2014) Morphological and chemical characterization of mineral concretions in the freshwater bivalve *Anodonta Cygnea* (Family Unionidae). *Journal of Morphology*, **1-12**, <http://dx.doi.org/10.1002/jmor.20320> **IF 1.52**
27. Maia, M, Jaques, L., **Bobos, I.,** Noronha, F. (2014) Mineralogical, petrographical and geochemical study of the post-magmatic process from the Freixiosa-Mesquitela granite, Mangualde, Portugal. Preliminary data. *Comunicações Geológicas de Portugal*, 101, 137-143. **IF 0.37**
26. Guimarães, V., **Bobos, I.,** Rocha, F. (2014) Acid-Base Properties of Ca -Montmorillonite from Benavila Region (Portugal). *Comunicações Geológicas de Portugal*, 101, 791-794 **IF 0.37**
25. Campos, B., Aguillar, J., Algarra, M., Gonçalves, M., Castellon, E., Esteves da Silva, J., **Bobos, I.** (2013) Adsorption of uranyl ions on

- kaolinite, montmorillonite, humic acid and composite clay material. *Applied Clay Science*. 85, 52-63, <http://dx.doi.org/10.1016/j.clay.2013.08.046> **IF 3.10**
24. Bobos, I., Eberl, D.D. (2013) Thickness distributions and evolution of growth mechanisms of NH<sub>4</sub>-Illite from the fossil hydrothermal system of Harghita Băi, Eastern Carpathians, Romania. *Clays and Clay Minerals*, 61, 375-391. **IF 1.39**
23. Bobos I. (2012) Characterization of smectite to NH<sub>4</sub>-I conversion series from the hydrothermal system of Harghita Bai (East Carpathians), *American Mineralogist*, 97, 962-982. **IF 2.06**
22. Algarra, M., Reis, A., Bobos, I., Campo B., Jiménez-Jiménez J., Moreno-Tost, R., Esteves da Silva (2012) Optical Characterization of CdS Quantum Dots Nanoparticles Dispersed in Clays. *Journal of Dispersion Science and Technology*, 33, 8, 1139-1143. **IF 0.64**
21. Lopes, A., Lopes-Lima, M., Bobos, I., Ferreira, J., Reis, R., Mano, J., Machado, J. (2010) The effects of *Anodonta cygnea* biological fluids on biomineralization of chitosan membranes. *Journal of Membrane Science*, 364, 1-2, 82-89. **IF 3.**
20. Durães, N., Cortez, D., Algarra, M., Sánchez F. G., Rodrigues-Borges J.E., Bobos I., da Silva, J.G.E. (2010) Comparison of adipocere formation in four soil types of the Porto (Portugal) district. *Forensic Science International*, 195, 168.e1–168.e6. **IF 2.29**
19. Bobos I, Williams LB (2011) Boron, lithium and nitrogen isotope geochemistry of K- and NH<sub>4</sub>-rich illite/smectite clays in fossil hydrothermal systems (Goldschmidt Conferences A75). *Mineralogical Magazine*, 75, 539. **IF 1.32**
18. Jaques, L., Bobos, I., Noronha, F. (2010) Estudo dos fluidos com a episienitização de granitos biotíticos do Geres e da Guarda (Portugal). *Comunicações Geológicas*, 97, 81-98. **IF 0.37**
17. Clauer, N., Liewig, N., Bobos, I. (2010) K-Ar, d18O and REE constraints on the genesis of illite in hydrothermal systems of Harghita Bai. *Clay Minerals*, 45, 393 – 411. **IF 1.46**
16. Flores, D., Ribeiro, J., Pina, B., Marques, M.M., Ribeiro, M.A., Bobos, I., Jesus A.P (2010) The Buçaco Basin (Portugal): Organic petrology and geochemistry study. *International Journal of Coal Geology*, 81, 281-286. **IF 2.3**
15. Algarra M., Bobos, I., Jimenez-Jimenez, J., Moreno-Tost, R., Rodriguez-Castellon E., Esteves da Silva, J.G. (2010) Porous Phosphate Heterostructures containing CdS Quantum Dots: Assembly, characterization and photoluminescence. *Journal of Inclusion Phenomena and Macrocyclic Chemistry*. 67, 1-2, 225-232. **IF 1.25**
14. Andrade, E., Madruga, M.J., Bobos, I., Paiva, I., Maia, F., Mateus, A., Trindade, R., Freitas M.C., Gonçalves M.A. (2010) Characterization of Portuguese geomaterials, the clay component of *rañas*, as potential liners for low and intermediate radioactive disposal sites. *Journal of Radioanalytical and Nuclear Chemistry*, 286, 3, 777-783. **IF 0.98**
13. Ferreira da Silva, E., Bobos, I., Matos J. X., Patinha C., Reis P., Cardoso Fonseca E. (2009). Mineralogy and Geochemistry of Toxic Metals and Rare Earth Elements in Massive Sulfide Gossan, Stream *Sediments and Waters*, and Acid Mine Waters From the Lousal Mine, Iberian Pyrite Belt, Portugal. *Applied Geochemistry*, 24, 2, 383-401. **IF 2.31**
12. Durães, N., Bobos, I., Ferreira da Silva, E. (2008) Chemistry and FT-IR spectroscopic studies in plants from contaminated mining sites. *Mineralogical Magazine*, 72, 1, 405-409. **IF 1.81**
11. Bobos I., Vieillard P., Charoy B. Noronha F., (2007) Alteration of spodumene to cookeite and its thermodynamic stability. *Clays and Clay Minerals*, 57, 3, 296-304. **IF 1.46**
10. Bobos I., Rocha F. (2006) Radiocaesium dispersion and fixation in the lagoon systems of “Ria de Aveiro”, Portugal. *Journal of Geochemical Exploration*. 88, 367-372. **IF 1.08**
09. Bobos I., Durães N., Noronha F. (2006) Mineralogy and geochemistry of mill tailings deposits from Algares (Aljustrel), Portugal: Implications for acid-sulphate mine waters formation. *Journal of Geochemical Exploration*, 88, 1-5. **IF 1.08**
08. Bobos, I., Jaques, L., Noronha, F., Clauer, N., Liewig, N. (2005) Geochemistry, geothermometry, and K-Ar dating of episyenitic rocks associated with the Guarda uraniumiferous granites, Portugal . In: Mao J., Bierlein F.P. (eds) *Mineral Deposit Research: Meeting the Global Challenge*. Springer, Berlin, Heidelberg. [https://doi.org/10.1007/3-540-27946-6\\_58](https://doi.org/10.1007/3-540-27946-6_58)
07. Bobos I., Duplay J. Rocha J., Gomes. C. (2001) Kaolinite to halloysite-7Å transformation in the kaolin deposit of São Vicente de Pereira, Portugal. *Clays and Clay Minerals*, 49, 6, 597–605. **IF 1.34**
06. Bobos I., Gomes C. (2000) Dissolution of K-feldspar into Si/Al gel and crystallization of halloysite-7Å. *Geologica Carpathica*, 51, 49-57. **IF 0.2**
05. Carames M., Bobos I., Gomes C. (1999) Comparative study of the rheological properties of two kaolins, one residual and the other sedimentary occurring nearby. *Mineralogica Petrographica Acta*, XLII, 57-69. **IF 0.48**
04. Tari G., Bobos I., Gomes C, Ferreira JM (1999) Modification of charge density properties during kaolinite to halloysite-7Å transformation. *Journal of Colloidal and Interface Science*, 209, 360-366. **IF: 1.33**
03. Bobos I., Ghegari L. (1999) Conversion of smectite to ammonium-illite in the hydrothermal system of Harghita Bai, Romania: SEM and TEM investigations. *Geologica Carpathica*, 50, 361-379. **IF 0.2**
02. Bobos I., Gomes C. (1998) Greisen and post-greisen alteration in the São Vicente de Pereira area. *Canadian Mineralogist*, 36, 1615-1624. **IF 1.28**
01. Pacurariu C., Lazau I., Bobos I., Becherescu D. (1995) Characterization of spinel pigments prepared using organometallic precursors in the ZnO-CaO-Al<sub>2</sub>O<sub>3</sub> system. *Revue Roumaine de Chimie*, Tom 42, 6, 447- 454, Romanian Academy, Bucuresti. (ISSN: 0035-3930) **IF: 0.2**

28.12.2025

Professor Iuliu Bobos

