

# Vojtěch Ettler<sup>1</sup>

## Publikáční činnost

### 1. Vědecké monografie

Žádné

### 2. Kapitoly v monografiích

Žádné

### 3. Původní vědecké práce

#### 3a. Původní vědecké práce práce v mezinárodních časopisech s impakt faktorem<sup>2</sup>

1. Ettler V., Johan Z., Touray J.C., Jelínek E. (2000): Zinc partitioning between glass and silicate phases in historical and modern lead-zinc metallurgical slags from the Příbram district, Czech Republic. *Comptes Rendus de l'Académie des Sciences, Paris, série II* **331**, 245-250. dnes *Comptes Rendus Geoscience (IF = 1,401)*
2. Ettler V., Legendre O., Bodénan F., Touray J.C. (2001): Primary phases and natural weathering of old lead-zinc pyrometallurgical slag from Příbram, Czech Republic. *Canadian Mineralogist* **39**, 873-888. (**IF = 1,180**)
3. Ettler V., Mihaljevič M., Piantone P., Touray J.C. (2002): Leaching of polished sections: an integrated approach for studying the liberation of heavy metals from lead-zinc metallurgical slags. *Bulletin de la Société géologique de France* **173**, 161-169. (**IF = 1,182**)
4. Mihaljevič M., Poňavič M., Ettler V., Šebek O. (2003): A comparison of sequential extraction techniques for determining arsenic fractionation in synthetic mineral mixtures. *Analytical and Bioanalytical Chemistry* **377**, 723-729. (**IF = 3,659**)
5. Ettler V., Johan Z. (2003): Mineralogy of metallic phases in sulphide mattes from primary lead smelting. *Comptes Rendus Geoscience* **335**, 1005-1012. (**IF = 1,401**)
6. Ettler V., Johan Z., Hradil D. (2003b): Natural alteration products of sulphide mattes from primary lead smelting. *Comptes Rendus Geoscience* **335**, 1013-1020. (**IF = 1,401**)
7. Ettler V., Piantone P., Touray J.C. (2003): Mineralogical control on inorganic contaminant mobility in leachate from lead-zinc metallurgical slag: experimental results and long-term assessment. *Mineralogical Magazine* **67**, 1269-1283. (**IF = 2,212**)
8. Mihaljevič M., Sisr L., Ettler V., Šebek O., Průša J. (2004): Oxidation of As-bearing gold ore - a comparison of batch and column experiments. *Journal of Geochemical Exploration* **81**, 59-70. (**IF = 1,952**)
9. Ettler V., Mihaljevič M., Komárek M. (2004): ICP-MS measurements of lead isotopic ratios in soils heavily contaminated by lead smelting: tracing the sources of pollution. *Analytical and Bioanalytical Chemistry* **378**, 311-317. (**IF = 3,659**)

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<sup>2</sup> Impakt faktor uveden pro rok 2012

10. Ettler V., Komárková M., Jehlička J., Coufal P., Hradil D., Machovič V., Delorme F. (2004): Leaching of lead metallurgical slag in citric solutions – implications for disposal and weathering in soil environment. *Chemosphere* **57**, 567-577. (**IF = 3,137**)
11. Ettler V., Vaněk A., Mihaljevič M., Bezdička P. (2005): Contrasting lead speciation in forest and tilled soils heavily polluted by lead metallurgy. *Chemosphere* **58**, 1449-1459. (**IF = 3,137**)
12. Kment P., Mihaljevič M., Ettler V., Šebek O., Strnad L., Rohlová L. (2005): Differentiation of Czech wines using multielement composition - A comparison with vineyard soil. *Food Chemistry* **91**, 157-165. (**IF = 3,334**)
13. Ettler V., Mihaljevič M., Šebek O., Strnad L. (2005): Leaching of APC residues from secondary Pb metallurgy using single extraction tests: the mineralogical and the geochemical approach. *Journal of Hazardous Materials* **B121**, 149-157. (**IF = 3,925**)
14. Ettler V., Johan Z., Baronnet A., Jankovský F., Gilles C., Mihaljevič M., Šebek O., Strnad L., Bezdička P. (2005): Mineralogy of air-pollution-control residues from a secondary lead smelter: environmental implications. *Environmental Science and Technology* **39**, 9309-9316. (**IF = 5,257**)
15. Ettler V., Jehlička J., Mašek V., Hruška J. (2005): The leaching behaviour of lead metallurgical slag in high-molecular-weight (HMW) organic solutions. *Mineralogical Magazine* **69**, 737-747. (**IF = 2,212**)
16. Mihaljevič M., Ettler V., Hradil D., Šebek O., Strnad L. (2006): Dissolution of bentonite and release of rare earth elements at different solid/liquid ratios in simulated wine purification process. *Applied Clay Science* **31**, 36-46. (**IF = 2,342**)
17. Ettler V., Zelená O., Mihaljevič M., Šebek O., Strnad L., Coufal P., Bezdička P. (2006): Removal of trace elements from landfill leachate by calcite precipitation. *Journal of Geochemical Exploration* **88**, 28-31, SI (**IF = 1,952**)
18. Mihaljevič M., Ettler V., Šebek O., Strnad L., Chrastný V. (2006): Lead isotopic signatures of wine and vineyard soils – tracers of lead origin. *Journal of Geochemical Exploration* **88**, 130-133, SI (**IF = 1,952**)
19. Ettler V., Matura M., Mihaljevič M., Bezdička P. (2006): Metal speciation and attenuation in stream waters and sediments contaminated by landfill leachate. *Environmental Geology* **49**, 610-619. dnes *Environmental Earth Sciences* (**IF = 1,445**)
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21. Komárek M., Chrastný V., Ettler V., Tlustoš P. (2006): Evaluation of extraction/digestion techniques used for the determination of the lead isotopic compositions in forest soils. *Analytical and Bioanalytical Chemistry* **385**, 1109-1115. (**IF = 3,659**)
22. Mihaljevič M., Zuna M., Ettler V., Šebek O., Strnad L., Goliáš V. (2006): Lead fluxes, isotopic and concentration profiles in a peat deposit near a lead smelter (Příbram, Czech Republic). *Science of the Total Environment* **372**, 334-344. (**IF = 3,258**)
23. Komárek M., Tlustoš P., Száková J., Chrastný V., Ettler V. (2007): The use of maize and poplar in chelant-enhanced phytoextraction of lead from contaminated agricultural soils. *Chemosphere* **67**, 640-651. (**IF = 3,137**)

24. Sisr L., Mihaljevič M., Ettler V., Strnad L., Šebek O. (2007): Effect of application of phosphate and organic-manure based fertilizers on arsenic transformation in soil columns. *Environmental Monitoring and Assessment* **135**, 465-473. (**IF = 1,592**)
25. Ettler V., Mihaljevič M., Šebek O., Nechutný Z. (2007): Antimony availability in highly polluted soils and sediments – a comparison of single extractions. *Chemosphere* **68**, 455-463. (**IF = 3,137**)
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27. Ettler V., Mihaljevič M., Šebek O., Grygar T. (2007): Assessment of single extractions for the determination of mobile forms of metals in highly polluted soils and sediments – analytical and thermodynamic approaches. *Analytica Chimica Acta* **602**, 131-140. (**IF = 4,387**)
28. Mihaljevič M., Zuna M., Ettler V., Chrastný V., Šebek O., Strnad L., Kyncl T. (2008): A comparison of tree rings and peat deposit geochemical archives in the vicinity of a lead smelter. *Water Air and Soil Pollution* **188**, 311-321. (**IF = 1,748**)
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30. Ettler V., Mihaljevič M., Matura M., Skalová M., Šebek O., Bezdička P. (2008): Temporal variation of trace elements in waters polluted by municipal solid waste landfill leachate. *Bulletin of Environmental Contamination and Toxicology* **80**, 274-279. (**IF = 1,105**)
31. Strnad L., Mihaljevič M., Ettler V., Barsová L., Zuna M., Šebek O. (2008): Distribution of platinum group elements in peat deposit near a historic Pb-Ag mining district. *Bulletin of Environmental Contamination and Toxicology* **81**, 159-163. (**IF = 1,105**)
32. Ettler V., Navrátil T., Mihaljevič M., Rohovec J., Zuna M., Šebek O., Strnad L., Hojdová M. (2008): Mercury deposition/accumulation rates in the vicinity of a lead smelter as recorded by a peat deposit. *Atmospheric Environment* **42**, 5968-5977. (**IF = 3,110**)
33. Vítková M., Ettler V., Šebek O., Mihaljevič M. (2008): Metal-contaminant leaching from lead smelter fly ash using pH-stat experiments. *Mineralogical Magazine* **72**, 107-110, SI (**IF = 2,212**)
34. Ettler V., Šebek O., Grygar T., Klementová M., Bezdička P., Slavíková H. (2008): Controls on metal leaching from secondary Pb smelter air-pollution-control residues. *Environmental Science and Technology* **42**, 7878-7884. (**IF = 5,257**)
35. Quantin C., Ettler V., Garnier J., Šebek O. (2008): Sources and extractability of chromium and nickel in soil profiles developed on Czech serpentinites. *Comptes Rendus Geoscience* **340**, 872-882. (**IF = 1,401**)
36. Ettler V., Johan Z., Kříbek B., Šebek O., Mihaljevič M. (2009): Mineralogy and environmental stability of slags from the Tsumeb smelter, Namibia. *Applied Geochemistry* **24**, 1-15. (**IF = 1,708**)
37. Vítková M., Ettler V., Šebek O., Mihaljevič M., Grygar T., Rohovec J. (2009): The pH-dependent leaching of inorganic contaminants from secondary lead smelter fly ash. *Journal of Hazardous Materials* **167**, 427-433. (**IF = 3,925**)

38. Mihaljevič M., Ettler V., Strnad L., Šebek O., Vonásek F., Drahota P., Rohovec J. (2009): Isotopic composition of lead in Czech coals. *International Journal of Coal Geology* **78**, 38-46. (**IF = 2,976**)
39. Komárek M., Ettler V., Száková J., Šebek O., Tlustoš P. (2009): Bioavailability of lead and cadmium in soils artificially contaminated with smelter fly ash. *Bulletin of Environmental Contamination and Toxicology* **83**, 286-290. (**IF = 1,105**)
40. Kadlec J., Grygar T., Světlík I., Ettler V., Mihaljevič M., Diehl J.F., Beske-Diehl S., Svitavská-Svobodová H. (2009): Morava River floodplain development during the last millennium, Strážnické Pomoraví, Czech Republic. *The Holocene* **19**, 499-509. (**IF = 3,218**)
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42. Ettler V., Vrtíšková R., Mihaljevič M., Šebek O., Grygar T., Drahota P. (2009): Cadmium, lead and zinc leaching from smelter fly ash in simple organic acids – simulators of rhizospheric soil solutions. *Journal of Hazardous Materials* **170**, 1264-1268. (**IF = 3,925**)
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45. Ettler V., Červinka R., Johan Z. (2009): Mineralogy of medieval slags from lead and silver smelting (Bohutín, Příbram district, Czech Republic): Towards estimation of historical smelting conditions. *Archaeometry* **51**, 987-1007. (**IF = 1,287**)
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47. Grygar T., Světlík I., Lisá L., Koptíková L., Bajer A., Wray D.S., Ettler V., Mihaljevič M., Nováková T., Koubová M., Novák J., Máčka Z., Smetana M. (2010): Geochemical tools for the stratigraphic correlation of floodplain deposits of the Morava River in Strážnické Pomoraví, Czech Republic from the last millennium. *Catena* **80**, 106-121. (**IF = 1,881**)
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49. Mihaljevič M., Ettler V., Šebek O., Drahota P., Strnad L., Procházka R., Zeman J., Šráček O. (2010): Alteration of arsenopyrite in soils under different vegetation covers. *Science of the Total Environment* **408**, 1286-1294. (**IF = 3,258**)
50. Ettler V., Mihaljevič M., Šebek O. (2010): Antimony and arsenic leaching from secondary lead smelter air-pollution-control residues. *Waste Management and Research* **28**, 587-595. (**IF = 1,047**)

51. Vítková M., Ettler V., Johan Z., Kříbek B., Šebek O., Mihaljevič M. (2010) Primary and secondary phases in copper-cobalt smelting slags from the Copperbelt Province, Zambia. *Mineralogical Magazine* **74**, 581-600. (**IF = 2,212**)
52. Matura M., Ettler V. Ježek J., Mihaljevič M., Šebek O., Sýkora V., Klementová M. (2010): Association of trace elements with colloidal fractions in leachates from closed and active municipal solid waste landfills. *Journal of Hazardous Materials* **183**, 541-548. (**IF = 3,925**)
53. Mihaljevič M., Ettler V., Šebek O., Sracek O., Kříbek B., Kyncl T., Majer V., Veselovsky F. (2011): Lead isotopic and metallic pollution record in tree rings from the Copperbelt mining-smelting area, Zambia. *Water, Air and Soil Pollution* **216**, 657-668. (**IF = 1,748**)
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55. Vítková M., Ettler V., Hyks J., Astrup T., Kříbek B. (2011): Leaching of metals from copper smelter flue dust (Mufulira, Zambian Copperbelt). *Applied Geochemistry* **26**, S236-S266, SI. (**IF = 1,708**)
56. Zuna M., Mihaljevič M., Šebek O., Ettler V., Handley M., Navrátil T., Goliáš V. (2011): Recent lead deposition trends in the Czech Republic as recorded by peat bogs and tree rings. *Atmospheric Environment* **45**, 4950-4958. (**IF = 3,110**)
57. Filip J., Yngard R.A., Šišková K., Marušák Z., Ettler V., Saidl P., Sharma V.K., Zbořil R. (2011): Mechanisms and efficiency of the simultaneous removal of metals and cyanides by using ferrite (VI): Crucial role of nanocrystalline iron(III) oxyhydroxides and metal carbonates. *Chemistry – a European Journal* **17**, 10097-10105. (**IF = 5,831**)
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60. Šebek O., Mihaljevič M., Strnad L., Ettler V., Ježek J., Štědrý R., Drahota P., Ackerman L., Adamec V. (2011): Dissolution kinetics of Pt and Pd from automobile catalysts by naturally occurring complexing agents. *Journal of Hazardous Materials* **198**, 331-339. (**IF = 3,925**)
61. Ettler V., Johan Z., Vítková M., Skála R., Kotrlý M., Habler G., Klementová M. (2012): Reliability of chemical microanalyses for solid waste materials. *Journal of Hazardous Materials* **221**, 298-302. (**IF = 3,925**)
62. Tyszka R., Pietranik A., Kierczak J., Ettler V., Mihaljevič M., Weber J. (2012): Anthropogenic and lithogenic sources of lead in Lower Silesia (Southwest Poland): An isotope study of soils, basement rocks and anthropogenic materials. *Applied Geochemistry* **27**, 1089-1100. (**IF = 1,708**)

63. Matura M., Ettler V., Klementová M. (2012): Transmission electron microscopy investigation of colloids and particles from landfill leachates. *Waste Management and Research* **30**, 530-541. (**IF = 1,047**)
64. Zuna M., Ettler V., Šebek O., Mihaljevič M. (2012): Mercury accumulation in peatbogs at Czech sites with contrasting pollution histories. *Science of the Total Environment*, **424**, 322-330. (**IF = 3,258**)
65. Ettler V., Kříbek B., Majer V., Kněsl I., Mihaljevič M. (2012): Differences in the bioaccessibility of metals/metalloids in soils from mining and smelting areas (Copperbelt, Zambia). *Journal of Geochemical Exploration* **113**, 68-75, SI. (**IF = 1,952**)
66. Drahota P., Filippi M., Ettler V., Rohovec J., Mihaljevič M., Šebek O. (2012): Natural attenuation of arsenic in soils near a highly contaminated historical mine waste dump. *Science of the Total Environment* **414**, 546-555. (**IF = 3,258**)
67. Ettler V., Mihaljevič M., Šebek O., Valigurová R., Klementová M. (2012): Differences in antimony and arsenic releases from lead smelter fly ash in soils. *Chemie der Erde-Geochemistry* **72**, suppl. 4, 15-22, SI. (**IF = 1,351**)
68. Ettler V., Mihaljevič M., Šebek O., Matys Grygar T., Klementová M. (2012): Experimental in situ transformation of Pb smelter fly ash in acidic soils. *Environmental Science & Technology* **46**, 10539-10548. (**IF = 5,257**)
69. Kierczak J., Potysz A., Pietranik A., Tyszka R., Modelska M., Néel C., Ettler V., Mihaljevič M. (2013): Environmental impact of the historical Cu smelting in the Rudawy Janowickie Mountains (south-western Poland). *Journal of Geochemical Exploration* **124**, 183-194. (**IF = 1,952**)
70. Vítková M., Hyks J., Ettler V., Astrup T. (2013): Stability and leaching of cobalt smelter fly ash. *Applied Geochemistry* **29**, 117-125. (**IF = 1,708**)
71. Ettler V., Knytl V., Komárek M., Della Puppa, L., Bordas, F., Mihaljevič, M., Klementová M., Šebek, O. (2013): Stability of a novel synthetic amorphous manganese oxide in contrasting soils. *Geoderma* **214-215**, 2-9. (**IF = 2,345**)
72. Konečný L., Ettler V., Kristiansen S.M., Amorim M.J.B., Kříbek B., Mihaljevič M., Šebek O., Nyambe I., Scott-Fordsmand J.J. (2013): Response of Enchytraeus crypticus worms to high metal levels in tropical soils polluted by copper smelting. *Journal of Geochemical Exploration* (v tisku, doi: 10.1016/j.gexplo.2013.10.004). (**IF = 1,952**)
73. Tyszka R., Kierczak J., Pietranik A., Ettler V., Mihaljevič M. (2013): Extensive weathering of zinc smelting slag in the heap in Upper Silesia (Poland): potential environmental risks posed by mechanical disturbance of slag deposits. *Applied Geochemistry* (v tisku, doi: 10.1016/j.apgeochem.2013.10.010). (**IF = 1,708**)
74. Ettler V., Johan Z. (2013): 12 years of leaching of contaminants from Pb smelter slags: geochemical/mineralogical controls and slag recycling potential. *Applied Geochemistry* (v tisku, 10.1016/j.apgeochem.2013.11.001) (**IF = 1,708**)
75. Vaněk A., Ettler V., Skipalová K., Novotný J., Penížek V., Mihaljevič M., Kříbek B., Šráček O., Drábek O., Tejnecký V., Mapani B. (2013): Environmental stability of the processing waste from sulfide mining districts of Namibia – A model rhizosphere solution approach. *Journal of Geochemical Exploration* (v tisku, doi: 10.1016/j.gexplo.2013.10.018) (**IF = 1,952**)

**3b. Původní vědecké práce publikované v domácích odborných časopisech s impakt faktorem**

76. Ettler V., Mihaljevič M. (1999): Distribution of trace elements in several ombrotrophic peatbogs in the Bohemian Massif. *Rostlinná výroba* **45**, 331-334. dnes *Plant, Soil and Environment (IF = 1.113)*

**3c. Původní vědecké práce publikované v zahraničních odborných časopisech bez impakt faktoru**

77. Ettler V., Johan Z., Kříbek B., Nolte H. (2010): Mineralogy of primary phases in slag and matte from the Tsumeb smelter (Namibia). *Communications of Geological Survey of Namibia* **14**, 3-14.

**3d. Referátové a přehledové články v mezinárodních časopisech s impact faktorem**

78. Komárek M., Ettler V., Chraštný V., Mihaljevič M. (2008): Lead isotopes in environmental sciences: A review. *Environment International* **34**, 562-577. (**IF = 6,248**)
79. Komárek M., Vaněk A., Ettler V. (2013): Chemical stabilization of metals and arsenic in contaminated soils using oxides - A review. *Environmental Pollution* **172**, 9-22. (**IF = 3,730**)

**3e. Práce publikované v recenzovaných sbornících vydaných v zahraničí**

80. Legendre O., Ettler V., Bodénan F. (2000): Crystallochemistry of oxides and silicates from ancient lead pyrometallurgical slag, with an emphasis on the localisation and mobilisation of heavy metals. In Rammelmair D., Mederer J., Oberthür Th., Heiman R.B., Pentinghaus H. (eds) *Applied Mineralogy*, Balkema Publication, Rotterdam, **2**: 837-838.
81. Ettler V., Piantone P., Touray J.C. (2001): Metallurgical slag/water interaction: experimental approach, thermodynamic modeling and long-term assessment. In Cidu R. (ed) *Water-Rock Interaction*, Balkema Publishers, Lisse/Abingdon/Exton/Tokyo, **2**: 1319-1322.
82. Ettler V., Mihaljevič M., Touray J.C. (2001): Metallurgical slag behaviour in extreme conditions: surface leaching and metal mobility. In Schmitt J.M., Thiry M., Van Oort F. (eds) *Industrie minérale et environnements: aspects géochimiques, hydrogéochimiques, biogéochimiques*. ENSMP-Mémoires des Sciences de la Terre, **40**, 81-83.

**4. Učebnice a učební texty**

1. Ettler V. (2008): Aplikace loužících metod a jejich interpretace. Skriptum "Moderní analytické metody v geologii", vydalo: VŠCHT a PACI (Pražské analytické centrum inovací, projekt CZ.04.3.07/4.2.01.1/0002), ISBN 978-80-86238-34-0, Praha 2008.

## 5. Různé závažné práce

1. Ettler V., Sejkora J., Drahota P., Litočleb J., Pauliš P., Zeman J., Novák M., Pašava J. (2010): Příbram and Kutná Hora mining districts – from historical mining to recent environmental impact. *Acta Mineralogica-Petrographica, field guide series*, 7, 23 pp. (IMA – International Mineralogical Association – 2010 general meeting field trip guide CZ3) (recenzovaný exkurzní průvodce)

## 6. Přednášky typu “invited speaker” na zahraničních pracovištích a mezinárodních konferencích

1. Série vyzvaných přednášek na rakouských univerzitách (organizováno Austrian Mineralogical Society [ÖMG]: 9. 5. 2011 - Universität Wien, Geozentrum, 11. 5. 2011 – MU Leoben, 12. 5. 2011 – Universität Innsbruck. “Mineralogy and environmental stability of old metallurgical slags – some case studies”.
2. Česká geologická společnost - 2. otevřený kongres České geologické společnosti a Slovenskej geologickej spoločnosti, 21.-25. 9. 2011 Monínec. “Contaminated geoenvironments: examples from mining and smelting sites”.
3. Geochémia 2011, 1.-2. 12. 2011 Bratislava. “Mobility and bioaccessibility of inorganic contaminants in soils in the vicinity of copper smelters, Copperbelt, Zambia”.
4. Annual Workshop of the IGCP/SIDA project 594, Environmental and health impacts of mining in Africa, 4.-6. 7. 2012, Windhoek, Namibia. “Environmental impact of ore smelting: the African and European experience”.
5. Goldschmidt Geochemistry 2013, 25-30. 8. 2013, Florence, Italy. “Dusts from Metal Smelters in Africa: Mineralogy, Leaching and Contaminant Bioaccessibility”.

## 7. Přehledy a souborné referáty

Viz kapitola 3d

## 8. Patenty národní a zahraniční, objevy

Žádné

## 9. Disertační, rigorózní a habilitační práce

1. Ettler V. (2000): Etude du potentiel polluant de rejets anciens et actuels de la métallurgie du plomb dans le district de Příbram (République Tchèque). *PhD. Thesis, Université d'Orléans*, 304 p. [vydáno též jako monografie v rámci ediční řady BRGM, Orléans: Ettler V. (2002): Etude du potentiel polluant de rejets anciens et actuels de la métallurgie du plumb dans le district de Příbram (République Tchèque). *Document du BRGM 301, ISBN 2-7159-0924-01* Orléans, France, 266 p. (CD-ROM)]

2. Ettler V. (2007): Mineralogie a její role při studiu vazby a mobility kovů v kontaminovaném přírodním prostředí. *Habilitační práce PřF UK, Praha*, 17 str. + 11 příloh (odborných prací)

## 10. Abstrakta z konferencí

1. Ettler V., Legendre O., Bodénan F. (1998): Mineralogy and weathering of Pb-Zn slags from Příbram (Czech Republic). *Goldschmidt Conference*, Toulouse, France, August 1998. *Mineralogical Magazine* **62A**, 427. (poster)
2. Ettler V., Baillif P., Touray J.C. (1999): Natural weathering of glass from Pb-metallurgical slag : a comparison with laboratory leaching test using XPS. *Le Verre: Matériaux du XXI<sup>ème</sup> siècle*, Montpellier, November 1999. *Bull. Liaison S.F.M.C.*, **11**, 146-147. (poster)
3. Ettler V., Touray J.C., Baillif P., Jelínek E. (2000): Leaching behaviour of lead metallurgical slags from historical and modern processing technologies. *RST 2000*, La Villette, Paris, April 2000. (přednáška)
4. Ettler V., Mihaljevič M., Azaroual M. (2000): Application of geochemical speciation computer modeling to a laboratory leaching of slag from one smelting site in the Czech Republic. *Fifth International Symposium and Exhibition on Environmental Contamination in Central and Eastern Europe*, Prague, September 2000: 97. (poster)
5. Ettler V., Touray J.C. (2001): Natural weathering of potentially applicable building material – metallurgical slag. *SWAPNET – Stone Weathering and Atmospheric Pollution Network*, Prachovské skály, Czech Republic, May 2001, *Acta Universitatis Carolinae – Geologica*, **45**, 9. (poster)
6. Ettler V., Le Forestier L., Touray J.C. (2001): Gestion des MIOM en République Tchèque – réglementation et valorisation. *Colloque MIOM 2001-Quel avenir pour les MIOM*, Orléans, France, October 2001, 197-200. (poster)
7. Ettler V., Johan Z. (2002): Alteration of sulfide matte – a waste material from lead smelting. *IMA 2002 - 18th General Meeting of the International Mineralogical Association*, Edinburgh, Scotland, September 2002, 193. (poster)
8. Ettler V., Matura M., Mihaljevič M., Šebek O., Bezdička P. (2003): Heavy metal scavenging mechanisms in leachate-polluted waters: a case study of an old municipal landfill of Prague, Czech Republic. In Christensen T.H., Cossu R. and Stegman, R. (eds), *Sardinia 2003, Ninth International Waste Management and Landfill Symposium*, Cagliari, Italy. CISA-Environmental Sanitary Engineering Centre, 383-384. (přednáška)
9. Ettler V., Mihaljevič M., Šebek O., Komárek M. (2004): Lead isotopes as a tool for understanding the lead mobility in smelter-impacted soils. *Goldschmidt Conference*, Copenhagen, Denmark, June 2004. *Geochimica et Cosmochimica Acta* **68**, A509. (poster)
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11. Mihaljevič M., Ettler V., Kment P., Strnad L., Šebek O., Hradil D. (2004): The effect of S/L ratio on trace element mobilization from bentonite to wine. *32<sup>nd</sup> International Geological Congress*, Florence, Italy, August 2004, 386. CD-ROM (poster)

12. Ettler V., Mihaljevič M., Johan Z. (2005): Relationship between the Pb mineralogy of smelter emissions and the contamination of smelter-impacted soils. *Environmental Mineralogy, Geochemistry and Human Health, Mineralogical Society Winter Meeting 2005*, Bath Spa, UK, January 2005, 56. (přednáška)
13. Ettler V., Zelená O., Mihaljevič M., Šebek O., Strnad L., Coufal P., Bezdička P. (2005): Removal of trace elements from landfill leachate by calcite precipitation. *GES-7, 7<sup>th</sup> International Symposium on the Geochemistry of the Earth's Surface*, Aix-en-Provence, France, August 2005, 41-44. (poster)
14. Mihaljevič M., Ettler V., Šebek O., Strnad L., Chrastný V. (2005): Lead isotopic signatures of wine and vineyard soils – tracers of lead origin. *GES-7, 7<sup>th</sup> International Symposium on the Geochemistry of the Earth's Surface*, Aix-en-Provence, France, August 2005, 163-167. (poster)
15. Ettler V., Mihaljevič M., Šebek O., Grygar T. (2006): Evaluation of single extractions for determination of available metals in highly contaminated soils and sediments – thermodynamic and analytical approach. *EGU annual meeting*, Vienna, April 2006, *Geophysical Research Abstracts, Vol. 8, 03337, 2006*. (poster)
16. Kadlec J., Grygar T., Diehl J. F., Beske-Diehl S., Mihaljevič M., Ettler V., Bezdička P., Světlík I. (2006): The Late Holocene climatic and anthropogenic record in flood-plain deposits of the Morava River (Czech Republic). *EGU annual meeting*, Vienna, April 2006, *Geophysical Research Abstracts, Vol. 8, 10993, 2006*. (poster)
17. Ettler V., Mihaljevič M., Nechutny Z. (2006): Antimony availability in highly polluted soils and sediments from a mining and smelting area: a comparison of single extractions. *SETAC Society of Environmental Toxicology and Chemistry 16th Annual Meeting*, The Hague, The Netherlands, May 7-11, 2006, 177. (poster)
18. Mihaljevič M., Sisr L., Ettler V., Strnad L., Šebek O. (2006): Effect of application of phosphate and organic manure-based fertilizers on arsenic transformation in soil colums. *SETAC Society of Environmental Toxicology and Chemistry 16th Annual Meeting*, The Hague, The Netherlands, May 7-11, 2006, 177. (poster)
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20. Červinka R., Ettler V. (2006): Mineralogy of medieval Pb slags from the Příbram district, Czech Republic. *Colloque Plomb – Florac*, Cévennes, France, September 7-10, 2006. (poster)
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32. Vítková M., Ettler V., Šebek O., Mihaljevič M. (2007): Application of pH-static system for the determination of metallic contaminant leaching from Pb smelter fly ash. *EMEC-8, The Eight European Meeting on Environmental Chemistry*, Inverness, Scotland, UK, December 5-8, 2007, p. 44. (poster)
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44. Vítková M., Ettler V., Hyks J., Astrup T. (2010): Leaching of metals from metallurgical wastes in pH-static system: an experimental approach. *15<sup>th</sup> ICHMET-International Konference on Heavy Metals in the Environment*, 19-23 September 2010, Gdansk, Poland, CD-ROM (extended abstract). (přednáška)
45. Vítková M., Ettler V., Hyks J., Astrup T. (2010): Assessment of the leaching behaviour of fly ash from a cobalt smelter, Zambia. *VENICE 2010 – 3rd International Symposium on Energy from Biomass and Waste*, 8-11 November 2010, Venice, Italy, CD-ROM (extended abstract). (poster)
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49. Vítková M., Ettler V., Veselovský F., Kříbek, B., Šebek O. (2011): Dust from copper smelters in the Zambian Copperbelt. *Goldschmidt Geochemistry 2011*, Prague, Czech Republic, August 14-19, 2011, *Mineralogical Magazine*, **75**(3), 2095. (poster)
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53. Mihaljevič M., Šebek O., Strnad L., Ettler V., Ježek J., Štědrý R., Drahota P. (2011): Dissolution kinetics of Pd and Pt from automobile catalysts by naturally occurring complexing agents. *Goldschmidt Geochemistry 2011*, Prague, Czech Republic, August 14-19, 2011, *Mineralogical Magazine*, **75**(3), 1468. (přednáška)
54. Ettler V., Mihaljevič M., Šebek O., Valigurová R. (2011): Differences in antimony and arsenic release from lead smelter fly ash in soil environments: experimental approach. *Antimony 2011*, 2nd International Workshop on Antimony in the Environment, Jena, Germany, August 21-24, 2011. (poster)
55. Ettler V., Mihaljevič M., Johan Z., Kříbek B., Šebek O. (2011): Contaminated geoenvironments: examples from mining and smelting sites. 2. *Otevřený kongres České geologické společnosti a Slovenskej geologickej spoločnosti*, Monínec, Česká Republika, 21.-29. 5. 2011, p. 32. (přednáška)
56. Ettler V., Mihaljevič M., Kříbek B., Majer V., Šebek O. (2011): Mobility and bioaccessibility of inorganic contaminants in soils in the vicinity of copper smelters, Copperbelt, Zambia. *Geochémia 2011*, 1.-2. 12. 2011 Bratislava, p. 37-39. (přednáška)
57. Ettler V., Knytl V., Komárek M., Della Puppa L., Mihaljevič M., Šebek O. (2012): Stability of amorphous hydrous manganese oxide in contrasting soils and implications for its use in chemical stabilization of metals/metalloids in contaminated soil environments. *European Geoscience Union General Assembly 2012*, Vienna, Austria, April 22-27, 2012, *Geophysical Research Abstracts*, Vol. 14, EGU2012-8532, 2012. (poster)

58. Vítková M., Ettler V., Mihaljevič, M., Šebek O. (2012): The role of sample preparation in testing of metal leachability from metallurgical slag. *WASCON 2012 - towards effective, durable and sustainable production and use of alternative materials in construction*. 8th International conference on sustainable management of waste and recycled materials in construction, Gothenburg, Sweden, 30 May – 1 June, 2012. (poster)
59. Ettler V., Mihaljevič M., Šebek O., Johan Z., Kříbek B., Vítková M. (2012): Recycling potential of smelting wastes – implications based on the long-term environmental stability testing. *WASCON 2012 - towards effective, durable and sustainable production and use of alternative materials in construction*. 8th International conference on sustainable management of waste and recycled materials in construction, Gothenburg, Sweden, 30 May – 1 June, 2012. (přednáška)
60. Ettler V. (2012): Environmental impact of ore smelting: the African and European experience. *Annual Workshop of the IGCP/SIDA project 594, Environmental and health impacts of mining in Africa*, 4.-6. 7. 2012, Windhoek, Namibia. (přednáška)
61. Ettler V., Mihaljevič M., Šebek O., Kříbek B., Majer V. (2012): Mobility and bioaccessibility of inorganic contaminants in soils in the vicinity of copper smelters, Copperbelt, Zambia. *Annual Workshop of the IGCP/SIDA project 594, Environmental and health impacts of mining in Africa*, 4.-6. 7. 2012, Windhoek, Namibia. (přednáška)
62. Kříbek B., Majer V., Knésl I., Nyambe I., Mihaljevič M., Ettler V. (2012): Metals and arsenic in cassava: Indicators of contamination in the Zambian Copperbelt mining district. *Annual Workshop of the IGCP/SIDA project 594, Environmental and health impacts of mining in Africa*, 4.-6. 7. 2012, Windhoek, Namibia. (přednáška)
63. Mihaljevič M., Ettler V., Šebek O., Šráček O., Kříbek B., Kyncl T., Majer V., Veselovský F. (2012): Dendrogeochemical record of pollution from mining and smelting in the Copperbelt, Zambia. *Annual Workshop of the IGCP/SIDA project 594, Environmental and health impacts of mining in Africa*, 4.-6. 7. 2012, Windhoek, Namibia. (přednáška)
64. Ettler V., Kříbek B., Johan Z., Vítková M., Mihaljevič M., Šebek O., Majer V., Nyambe I., Mapani B., Kamona F. (2013): Environmental stability of waste materials from non-ferrous metal smelting: an African experience. *24<sup>th</sup> Colloquium of African Geology (CAG24)*, Addis Ababa, Ethiopia, January 8-14, 2013, p. 303. (přednáška)
65. Mihaljevič M., Ettler V., Šebek O., Šráček O., Kříbek B. (2013): Dendrochemical record of pollution from mining and smelting in Copperbelt, Zambia – application of lead isotopic geochemistry. *24<sup>th</sup> Colloquium of African Geology (CAG24)*, Addis Ababa, Ethiopia, January 8-14, 2013, p. 311. (přednáška)
66. Ettler V., Vítková M., Kříbek B., Mihaljevič M. (2013): Bioaccessibility of metals/metalloids from soils and waste materials from mining and smelting areas in Africa. *29th International conference of the Society for Environmental Geochemistry and Health (SEGH 2013)*, Toulouse, France, July 8-12, 2013. (přednáška)
67. Ettler V., Mihaljevič M., Vaněk A., Zuna M. (2013): Is thallium in peat a good indicator of anthropogenic contamination? Examples from Czech sites with contrasting pollution histories. *29th International conference of the Society for Environmental Geochemistry and Health (SEGH 2013)*, Toulouse, France, July 8-12, 2013. (poster)
68. Ettler V., Vítková M., Mihaljevič M., Kříbek B. (2013): Dusts from Metal Smelters in Africa: Mineralogy, Leaching and Contaminant Bioaccessibility. *Goldschmidt*

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69. Tyszka R., Kierczak J., Pietranik A., Ettler V., Mihaljevič M. (2013): What is Hidden in a Slag Heap? *Goldschmidt Geochemistry 2013*, Florence, Italy, August 25-30, 2013, *Mineralogical Magazine*, 77(5), 2370. (poster)
  70. Mihaljevič M., Ettler V., Kříbek B., Chrastný V., Vaněk A., Penížek V. (2013): Copper and Lead Isotope Ratios as Tracers of Soils Pollution from the Kombat Mining Area, Namibia. *Goldschmidt Geochemistry 2013*, Florence, Italy, August 25-30, 2013, *Mineralogical Magazine*, 77(5), 1756. (poster)
  71. Ettler V., Vítková M., Kříbek B., Mihaljevič M. (2013): Dust from metal smelters: mineralogy, leaching and contaminant bioaccessibility. *XXth Anniversary Meeting of the Petrology Group of the Mineralogical Society of Poland* (From the deep Earth to the human's environment), Niemcza, Poland, October 17-20, 2013. Mineralogia – special papers, 41, p. 39. (přednáška)

## 11. Účast na řešení grantů

### Hlavní řešitel:

1. 2001-2004: Studium mobility anorganických polutantů při zvětrávání minerálních odpadů (strusek a škvár) jako nástroj posouzení jejich případné valorizace (GAČR GP205/01/D132).
2. 2002: Formy a izotopové složení olova v půdách silně kontaminovaných metalurgií (FRVŠ 2271/2002).
3. 2002: Procesy attenuace těžkých kovů ve výtoku z nemonitorované skládky (FRVŠ 2272/2002).
4. 2004-2006: Kinetika vazby kovů do struktury novotvořeného kalcitu ve vodách kontaminovaných skládkovým výluhem (GAAV KJB3111402).
5. 2005-2006: Kinetika loužení anorganických kontaminantů z popílků z metalurgie olova (GAUK 284/2005/B GEO).
6. 2005-2006: Speciace antimonu v půdách a sedimentech kontaminovaných důlní a hutní činností (GAUK 283/2005/B GEO).
7. 2006-2007: Mobilita a biodostupnost chromu a dalších stopových prvků v půdách vyvinutých na ultramafických horninách (BARRANDE 2-06-24, spolu s Université Paris-Sud, Orsay).
8. 2006-2008: Experimentální studium mobility kovů v půdách uměle kontaminovaných popílkem ze sekundární metalurgie Pb (GAČR 526/06/0418).
9. 2013-2017: Reaktivita antropogenních geomateriálů s obsahem kovů v půdách (GAČR 13-17501S).

### Spoluřešitel:

10. 2000-2002: Bilance zvětrávání metalurgických strusek. Přírodní zvětrávací procesy, loužící experimenty a analogie se skly pro uchovávání jaderného odpadu (GA UK 208/2000/B GEO, hlavní řešitel E. Jelínek, PřF UK).
11. 2002-2004: Vliv huminových sloučenin na rozpouštění olověných metalurgických strusek (GA UK 216/2002/B GEO, hlavní řešitel J. Jehlička, PřF UK).

12. 2004-2006: Geochemie a mineralogie precipitátů z kyselých důlních vod (GA ČR 205/04/1292, hlavní řešitel J. Zeman, MU Brno).
13. 2006: Mineralogie středověkých strusek z Bohutína jako nástroj určení historické technologie tavby rud Pb a Ag (GA UK 228/2006/B GEO, hlavní řešitel R. Červinka, PřF UK).
14. 2007-2008: Aplikace pH-statického systému pro zjištění loužících charakteristik minerálních odpadů z metalurgie (GAUK 83207, hlavní řešitel M. Vítková, PřF UK).
15. 2009-2011: Environmentální charakteristiky minerálních odpadů z metalurgie z oblasti Copperbeltu v Zambii (GAUK 53009, hlavní řešitel M. Vítková, PřF UK).
16. 2012: Environmentální mineralogie mikro- a nanočástic v metalurgických odpadech (GAUK 644112, hlavní řešitel M. Vítková, PřF UK).
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18. 2013-2015: NiCKEL DYnamics in impacted ultramaFIC Soils (NIDYFICS) (FP7-PEOPLE-2012-IRSES, no. 318123, hlavní řešitel C. Quantin, Université Paris-Sud, Orsay).

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19. 2009-2011: Experimentální studium vstupu platinových kovů do přírodního prostředí laboratorními a in situ zvětrávacími experimenty (GAČR 205/09/0414, člen týmu hlavního řešitele M. Mihaljeviče).
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## **12. Ostatní publikace**

1. Mihaljevič M., Ettler V., Strnad L., Šebek O. (2010): Stopové prvky ve vínech. K čemu je dobré znát jejich obsah? Vesmír 89, 2-4.

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