

ALESSANDRO FABBRIZIO

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Languages: Native Italian speaker, fluent English, fluent French, fluent Spanish

EDUCATION

- 06/2002-07/2005: **Ph.D. in Earth Sciences:** Dipartimento di Scienze della Terra, Camerino University, Italy.
Ph.D. Thesis: *Experimental studies of the differentiation process and pre-eruptive conditions in the magmatic system of Phlegrean Fields (Naples, Italy).*
- 10/1995-12/2000: **M.Sc. in Earth Sciences:** Cum Laude, Camerino University, Italy.
M.Sc. Thesis: *Halogen activity variations in the Alban Hill's magma (Rome, Italy).*

APPOINTMENTS

- 10/2016-present: **Assistant Professor**, Institute of Petrology & Structural Geology, Charles University
- 09/2013-08/2015: **ClerVolc Fellow**, Laboratoire Magmas et Volcans, Blaise Pascal University, France
- 01/2011-01/2013: **Lise Meitner Fellow**, Institute of Mineralogy and Petrography, Innsbruck University, Austria
- 04/2009-12/2010: **Postdoctoral Researcher**, Division of Geological and Planetary Sciences, California Institute of Technology, USA
- 09/2005-12/2008: **Postdoctoral Researcher**, Institute of Geochemistry and Petrology, ETH, Switzerland

FELLOWSHIPS AND ASSOCIATED RESEARCH FUNDING AS PRINCIPAL INVESTIGATOR

- 01/2018-12/2020: GACR (Grant Agency Czech Republic) Standard Project number 18-01982S, 3367000 CZK; Institute of Petrology and Structural Geology, Charles University
- 01/2011-01/2013: FWF (Austrian Science Fund) Lise Meitner Research Fellowship M-1266, 148000 EUR; Institute of Mineralogy and Petrography, Innsbruck University

PROFESSIONAL HABILITATION

- 12/2017: National Scientific Qualification as Associate Professor for Italian Universities. Section 04/A1 “Geochemistry, Mineralogy, Petrology, Volcanology, Georesources and applications”
- 02/2014: Qualification as « Maître des Conférences » for French Universities. Section 35 “Structure and evolution of the Earth and of other planets”, section 36 “Solid Earth: geodynamics of the upper envelopes, palaeobiosphere”

TEACHING & SERVICES

- 02/2017-present: Geological Thermodynamics, Institute of Petrology & Structural Geology, Charles University (summer semester)
- 10/2016-present: Advanced Reading Course, Institute of Petrology & Structural Geology, Charles University (summer and winter semester)
- 10/2016-present: Microscopy of rock-forming minerals, Institute of Petrology & Structural Geology, Charles University (winter semester)
- 01/2015-04/2015: From Mineral to Rock, Blaise Pascal University, Clermont Ferrand, France
- 05/2013: Isotope Geochemistry (short course), Camerino University, Italy
- 03/2005-06/2005: Applied Petrography (summer semester), Camerino University, Italy
- 03/2003-06/2005: Laboratory of Igneous Petrography (summer semester), Camerino University, Italy
- 2009-present: Reviewer for Mineralogy and Petrology, Chemical Geology, Contributions to Mineralogy and Petrology, Lithos, American Mineralogist, US National Science Foundation

REFERRED JOURNAL ARTICLES

- 1) **Fabbrizio, A.**, Špillar, V. (accepted) Methodology to derive well-calibrated thermometers: a new glass-composition geothermometer for olivine-bearing glassy samples at one atmosphere. *Annals of Geophysics*.
- 2) Bonechi, B., Perinelli, C., Gaeta, M., Tecchiatto, V., **Fabbrizio, A.** (in press) Amphibole growth from a primitive alkaline basalt at 0.8 GPa: time-dependent compositional evolution, growth rate and competition with clinopyroxene. *Lithos*, <https://doi.org/10.1016/j.lithos.2019.105272>.
- 3) **Fabbrizio, A.** (2019) An investigation on the zoning associated with divalent elements, P, Cr, Al and Ti in olivines from the Kilauea Iki lava lake (Hawaii). *Periodico di Mineralogia* 88, 185-201.
- 4) Maimaiti, M., **Fabbrizio, A.**, Carroll, M.R., Ertel-Ingrisch, W., Abudureheman, A., Paris, E., Dingwell, D.B. (2019) Experimental study of monazite solubility in haplogranitic melts: a new model for peraluminous and peralkaline melts. *European Journal of Mineralogy* 31, 49-59.
- 5) Arzilli, F., **Fabbrizio, A.**, Schmidt, M.W., Petrelli, M., Maimaiti, M., Dingwell, D.B., Paris, E., Burton, M., Carroll, M.R. (2018) The effect of diffusive re-equilibration time on trace element partitioning between alkali feldspar and trachytic melts. *Chemical Geology* 495, 50-66.
- 6) **Fabbrizio, A.**, Gaeta, M., Petrelli, M., Carroll, M.R. (2018) Sulfur and REE zoning in apatite: the example of the Colli Albani's magmatic system. *European Journal of Mineralogy* 30, 125-133.
- 7) **Fabbrizio, A.**, Bouhifd, M.A., Andrault, D., Bolfan-Casanova, N., Manthilake, G., Laporte, D. (2017) Argon behavior in basaltic melts in presence of a mixed H₂O-CO₂ fluid at upper mantle conditions. *Chemical Geology* 448, 100-109.
- 8) Clesi, V., Bouhifd, M.A., Bolfan-Casanova, N., Manthilake, G., **Fabbrizio, A.**, Andrault, D. (2016) Effect of H₂O on metal-silicate partitioning of Ni, Co, V, Cr, Mn and Fe: Implications for the oxidation state of Earth and Mars. *Geochimica et Cosmochimica Acta* 192, 97-121.
- 9) Newcombe, M., **Fabbrizio, A.**, Zhang, Y., Ma, C., LeVoyer, M., Guan, Y., Eiler, J., Saal, A., Stolper, E.M. (2014) Chemical zonation in olivine-hosted melt inclusions. *Contributions to Mineralogy and Petrology* 168:1030, 10.1007/s00410-014-1030-6.
- 10) **Fabbrizio, A.**, Stalder, R., Hametner, K., Günther D. (2013) Experimental chlorine partitioning between forsterite, enstatite and aqueous fluid at upper mantle conditions. *Geochimica et Cosmochimica Acta* 121, 684-700.
- 11) **Fabbrizio, A.**, Stalder, R., Hametner, K., Günther, D., Marquardt, K. (2013) Experimental partitioning of halogens and other trace elements between olivine, pyroxenes, amphibole and aqueous fluid at 2 GPa and 900-1300°C. *Contributions to Mineralogy and Petrology* 166, 639-653.
- 12) Lacalamita, M., Schingaro, E., Scordari, F., Ventrucci, G., **Fabbrizio, A.**, Pedrazzi, G. (2011) Substitution mechanisms and implications for the estimate of water fugacity for Ti-rich phlogopite from Mt. Vulture, Potenza, Italy. *American Mineralogist* 96, 1381-1391.
- 13) **Fabbrizio, A.**, Schmidt, M.W., Günther, D., Eikenberg, J. (2010) Ra-partitioning between phlogopite and silicate melt and ²²⁶Ra/Ba-²³⁰Th/Ba isochrones. *Lithos* 114, 121-131.
- 14) **Fabbrizio, A.**, Scaillet, B., Carroll, M.R. (2009) Estimation of pre-eruptive magmatic water fugacity in the Phleorean Fields, Naples, Italy. *European Journal of Mineralogy* 21, 107-116.
- 15) **Fabbrizio, A.**, Schmidt, M.W., Günther, D., Eikenberg, J. (2009) Experimental determination of Ra mineral/melt partitioning for feldspars and ²²⁶Ra-disequilibrium crystallization ages of plagioclase and alkali-feldspar. *Earth and Planetary Science Letters* 280, 137-148.

- 16) **Fabbrizio, A.**, Carroll, M.R. (2008) Experimental constraints on the differentiation process and pre-eruptive conditions in the magmatic system of Phlegrean Fields (Naples, Italy). *Journal of Volcanology and Geothermal Research* 171, 88-102.
- 17) **Fabbrizio, A.**, Schmidt, M.W., Günther, D., Eikenberg, J. (2008) Experimental determination of radium partitioning between leucite and phonolite melt and ^{226}Ra -disequilibrium crystallization ages of leucite. *Chemical Geology* 255, 377-387.
- 18) **Fabbrizio, A.**, Rouse, P.J., Carroll, M.R. (2006) New experimental data on biotite + magnetite + sanidine saturated phonolitic melts and application to the estimation of magmatic water fugacity. *American Mineralogist* 91, 1863-1870.

14-01-2020

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