

Gianluca IEZZI

Date of birth:

Place of birth

Citizenship:

Address: Dipartimento INGEO

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Languages: Italian, English, French, German (elementary).

Education:

- **2001:** (06/12/2001) **Ph.D.** in Mineral and Material Sciences, University of Orléans – ISTO-CNRS (France): *Crystal-chemistry of Li-bearing amphibole, an experimental approach*
- **1997:** (18/12/1997) **B.A. Earth Sciences - Geology**, Università G.d'Annunzio of Chieti (Italy): *Petrology and geochemistry of pre-55 and pre-37 ka volcanic products in the Phlegrean and Ischia areas (Italy)*

Fellowships:

- **2000-2001:** Grant EGIDE-Ministero degli Affari Esteri, I.S.T.O. Orléans (France)
- **1999-2000:** Grant Università G. d'Annunzio of Chieti - I.S.T.O. Orléans (France)

Positions:

- **2018, may:** Invited Professor at the IPGP (CNRS-Sorbonne University) of Paris, France
- **from 2016:** Associate Professor in Mineralogy, Petrography, Applied Mineralogy-Petrography, Geochemistry and Volcabnology, University G.d'Annunzio (Italy)
- **2005-2019:** Associate research to the HP-HT lab of the INGV (Roma)
- **2004 to 2016:** Lecture (researcher) in Mineralogy, Petrography and applied Mineralogy-Petrography, University G.d'Annunzio (Italy)
- **2002-2003:** Post-doc, Bayerisches Geoinstitut, Universität Bayreuth (Germany)
- **2001-2002:** Post-doc, Department of Earth Science, University G.d'Annunzio (Italy)

Prize:

- **2006: 'Ugo Panichi' Medal**, awarded by the SIMP (Society of Mineralogy and Petrology of Italy) to young Italian scientist particularly distinguished in the field of mineralogy

Scientific societies:

- **2008-2011:** Elected adviser of the President's Council of the SIMP (Society of Mineralogy and Petrology of Italy)
- Member of the SIMP (Society of Mineralogy and Petrology of Italy)
- Member of the MSA (Mineralogical Society of America)
- Member of the SILS (Society of Synchrotron Light of Italy)
- Member of the AIC (Association of crystallography of Italy)

Teaching activity at University G. d'Annunzio (Chieti, Italy):

- **2004-2008:** Hand-specimen petrography Lab of magmatic and metamorphic rocks (Faculty of Science, 1st year)
- **2005-2008:** Analytical methods for the characterisation of natural, synthetic and technical solid-state materials (Faculty of Science, 4th year)
- **2008-2012:** Applied mineralogy and petrography (Faculty of Science and Architecture, 4th year)
- **2014-2020:** Hand-specimen petrography Lab of magmatic and metamorphic rocks (Faculty of Science, 1st year)
- **2012-2020:** Applied mineralogy and petrography (Department of Engineering and Geology, 1st year – Master degree)

PhD programs:

- **2004:** Scienze della terra per la valutazione della dinamica terrestre, dei rischi geologici e delle risorse.
- **2006:** Geologia ed evoluzione della litosfera.
- **2007:** Geologia applicata all'ambiente ed al territorio
- **2008-2012:** Progettazione ed ingegneria del sottosuolo e dell'ambiente costruito.
- **2013:** architettura, geologia, ingegneria civile
- **2014-2017:** sistemi terrestri e ambiente costruito (*Earth systems and built environments*).

Administrative activity at University G.d'Annunzio (Chieti, Italy):

- **2013:** Designed member of the Quality Assurance Board (Presidio di Qualità)

Scientific skills:

- Hydrothermal equipments (IHP- and CSP-vessels, piston cylinder)
- Spectroscopy (FTIR, Raman, Mössbauer)
- Crystal Structural analysis (X-ray powder diffraction, Rietveld refinement)
- Chemical and textural analysis (XRF, EPMA and SEM)
- Image analysis

Scientific interests (*mineralogy, petrology, volcanology and geochemistry*):

- Crystal-chemistry of amphiboles, pyroxenes, garnets and feldspathoids
- High-*T*, low-*T* and high-*P* phase transitions
- Solidification (nucleation and crystallization) of natural and synthetic silicate liquids
- Petrology of volcanic rocks
- Textures, fabrics and kinematics of lavas and dikes
- Rock physics
- Textures, fabrics and strain history of fault rocks

Projects (principal investigator):

- **Iezzi G.** (2004). *Crystal fabric of lava flows by textural neutron diffraction analysis*. Proposal for Neutron Scattering Experiments at the FRJ-2 Reactor, Institut für Festkörperforschung Forschungszentrum Jülich, Germany.
- **Iezzi G.** (2005-2007). *Definition of the nucleation process and its effect on viscosity*. Unit 9, Project V3_2, INGV-DPC 2005-2007.
- **Iezzi G.** (2006-2008). *Sintesi idrotermale e cristallografica dei minerali del gruppo della sodalite e cancrinite*. RU, PRIN 2005.
- **Iezzi G.** (2006). *Low- and high-T phase transitions in amphiboles*. ESRF ID-31, Grenoble 2006.
- **Iezzi G.** (2006). *The high-pressure behaviour of amphiboles*. National Synchrotron Light Source, Brookhaven National Laboratory, U2A beamline COMPRES (Consortium for Materials Properties Research in Earth Sciences).
- **Iezzi G.** (2011-2013). *Modello sperimentale della solidificazione da raffreddamento dei fusi silicatici sub-alcalini*. RU, PRIN 2009.
- **Iezzi G.** (2011-2012). *Solidification of silicate melts*. Accordo bilaterale Università G. d'Annunzio e Università Leibniz di Hannover.
- **Iezzi G.** (2015). *3D characterisation of bubbles (0.05/15 mm) and crystals (0.001-0.2 mm) hosted in 5 volcanic rocks of an Etnean dike*. TOMOLAB X-ray CT laboratory, Elettra, Trieste.
- **Iezzi G.** (2015). *3D textural features of ash particles from the submarine Marsili volcano (Tyrrhenian Sea, Italy) phase-contrast synchrotron X-ray computed tomography (PC-mCT)*. SYRMEP, Elettra, Trieste.
- **Iezzi G.** (2007). *Nuovi criteri di tossicità degli amianti, definiti su modelli cellulari umani in vitro, in funzione delle caratteristiche morfometriche e chimico-fisiche delle fibre: Integrazione dei parametri su cui si basa la vigente normativa in tema di prevenzione*. Participant of the INAIL 2007 project, Prof. Di Gioacchino M. Principal Investigator.

PUBLICATIONS

(H-index by Scopus or WoS: 24)

ORCID: orcid.org/0000-0003-0618-0316; Scopus ID: 7003332210

Chapters in books:

- 1) **Iezzi G.**, Ventura G. (2005). *The kinematics of lava flows inferred from structural analysis of enclaves: a review*. In: Kinematics and dynamics of lava flows. Ed. Manga M., Ventura G. Special paper Geological Society of America, series 396: 15-28.
- 2) Welch M.D., Càmara F., Della Ventura G., **Iezzi G.** (2007). *Non-ambient in situ studies of amphiboles*. In: Amphiboles: Crystal Chemistry, Occurrence and Human Health. Ed. Della Ventura G., Hawthorne F.C., Oberti R., Mottana A. Reviews in Mineralogy and Geochemistry, vol. 67, 223-260.
- 3) **Iezzi G.**, Mollo S., Ventura G. (2009). *Solidification behavior of natural silicate melts and volcanological implications*. In: New Research on Volcanoes: Formation, Eruptions and Modelling' (Ed. Lewis N. And Moretti A.). Nova Science Publishers, Inc. Hauppauge, NY, ISBN: 978-1-60692-916-2, chp. 6, 127-151.
- 4) Giuliani L., **Iezzi G.**, Mollo S. (2021). *Dynamics of volcanic systems: physical and chemical models applied to equilibrium versus disequilibrium solidification of magmas*. In: Dynamic Magma Evolution (Ed. Vetere F.), Geophysical Monograph 254, American Geophysical Union. Published 2021, John Wiley & Sons, Inc., ISBN: 9781119521136, chp. 5, 101-132.

J.C.R. papers (with impact factor):

- 1) **Iezzi G.**, Ventura G. (2000). *Kinematics of lava flows based on fold analysis*. Geophysical Research Letters, vol. 27: N. 8, 1227-1230.
- 2) **Iezzi G.**, Ventura G. (2002). *Crystal fabric evolution in lava flows: results from numerical simulations*. Earth and Planetary Science Letters, 200: 33-46.
- 3) Della Ventura G., Hawthorne F.C., Robert J.-L., **Iezzi G.** (2003). *Synthesis and infrared spectroscopy of amphibole along the tremolite-pargasite join*. European Journal of Mineralogy, 15: 341-348.
- 4) **Iezzi G.**, Della Ventura G., Pedrazzi G., Robert J.-L., Oberti R. (2003). *Synthesis and characterisation of ferri-clinoferroholmquistite, $\text{Li}_2\text{Fe}^{2+}_3\text{Fe}^{3+}_2\text{Si}_8\text{O}_{22}(\text{OH})_2$* . European Journal of Mineralogy, 15: 321-328.
- 5) Càmara F., **Iezzi G.**, Oberti R. (2003). *HT-XRD study of synthetic ferrian magnesian spodumene: the effect of site dimension on the $P2_1/c \leftrightarrow C2/c$ phase transition*. Physics and Chemistry of Minerals, 30: 20-30.
- 6) **Iezzi G.**, Della Ventura G., Càmara F., Pedrazzi G., Robert J.-L. (2003). *The $^B\text{Na} - ^B\text{Li}$ exchange in A-site vacant amphiboles: synthesis and cation ordering along the ferri-clinoferroholmquistite – riebeckite join*. American Mineralogist, 88: 955-961.
- 7) Càmara F., Oberti R., **Iezzi G.**, Della Ventura G. (2003). *The $P2_1/m \leftrightarrow C2/m$ phase transition in synthetic amphibole $\text{Na}(\text{NaMg})\text{Mg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$: thermodynamic and crystal-chemical evaluation*. Physics and Chemistry of Minerals, 30: 570-581.
- 8) **Iezzi G.**, Della Ventura G., Oberti R., Càmara F., Holtz F. (2004). *Synthesis and crystal-chemistry of $\text{Na}(\text{NaMg})\text{Mg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$, $P2_1/m$ amphibole*. American Mineralogist, 89: 640-646.
- 9) **Iezzi G.**, Càmara F., Della Ventura G., Oberti R., Pedrazzi G., Robert J.-L. (2004). *Synthesis, crystal structure and crystal-chemistry of ferri-clinoholmquistite, $\text{Li}_2\text{Mg}_3\text{Fe}^{3+}_2\text{Si}_8\text{O}_{22}(\text{OH})_2$* . Physics and Chemistry of Minerals, 31: 375-385.
- 10) **Iezzi G.**, Gatta G.D., Kockelmann W., Della Ventura G., Rinaldi R., Schäfer W., Piccinin M., Gaillard F (2005). *Low-T neutron powder diffraction and light IR synchrotron study of synthetic amphibole $\text{Na}(\text{NaMg})\text{Mg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$* . American Mineralogist, 90: 695-700.
- 11) Gatta G.D., Boffa-Ballaran T., **Iezzi G.** (2005). *High-pressure and Raman study of a ferrian magnesian spodumene: Influence of cation substitution on the elastic behaviour*. Physics and Chemistry of Minerals, 32: 132-139.
- 12) Della Ventura G., Redhammer G.J., **Iezzi G.**, Hawthorne F.C., Papin A., Robert J.-L. (2005). *A Mössbauer and FTIR study of synthetic amphiboles along the magnesioriebeckite – ferri-clinoholmquistite join*. Physics and Chemistry of Minerals, 32: 103-113.
- 13) **Iezzi G.**, Boffa-Ballaran T., McCammon C., Langenhorst F. (2005). *The $\text{CaGeO}_3\text{-Ca}_3\text{Fe}_2\text{Ge}_3\text{O}_{12}$ garnet solid solution*. Physics and Chemistry of Minerals, 32: 197-207.
- 14) Della Ventura G., **Iezzi G.**, Redhammer G.J., Hawthorne F.C., Scailliet B., Novembre D. (2005). *Synthesis and crystal-chemistry of amphiboles along the magnesioriebeckite – magnesioarfvedsonite series as a function of $f\text{O}_2$* . American Mineralogist, 90: 1375-1383.
- 15) **Iezzi G.**, Della Ventura G., Hawthorne F.C., Pedrazzi G., Novembre D., Robert J.-L. (2005). *The $(\text{Mg}, \text{Fe}^{2+})$ substitution in ferri-clinoholmquistite, $\square\text{Li}_2(\text{Mg}, \text{Fe}^{2+})_3\text{Fe}^{3+}_2\text{Si}_8\text{O}_{22}(\text{OH})_2$* . European Journal of Mineralogy, 17: 733-740.
- 16) **Iezzi G.**, Tribaudino M., Della Ventura G., Nestola F., Bellatreccia F. (2005). *High-T phase transition of $^A\text{Na}^B(\text{LiMg})^C\text{Mg}_5\text{Si}_8\text{O}_{22}(\text{OH})_2$ amphibole: an X-ray synchrotron powder diffraction and FTIR spectroscopic study*. Physics and Chemistry of Minerals, 32: 515-523.

- 17) Hawthorne F.C., Della Ventura G., Oberti R., Robert J.-L., **Iezzi G.** (2005) *Short-range order in minerals: amphiboles*. The Canadian Mineralogist, 43: 1895-1920.
- 18) Oberti R., Quartieri S., Dalconi M.C., Boscherini F., **Iezzi G.**, Boiocchi M. (2005). *Distinct local environments for Ca along the non-ideal pyrope-grossular solid-solution: a new model based on crystallographic and EXAFS analysis*. Chemical Geology, 225: 347-359.
- 19) **Iezzi G.**, Della Ventura G., Tribaudino M. (2006). *Synthetic $P2_1/m$ amphiboles in the system $Li_2O-Na_2O-MgO-SiO_2-H_2O$ (LNMSH)*. American Mineralogist, 91: 425-429.
- 20) **Iezzi G.**, Liu Z., Della Ventura G. (2006). *Synchrotron infrared spectroscopy of synthetic $Na(NaMg)Mg_5Si_8O_{22}(OH)_2$ up to 30 GPa: insight on a new high-pressure amphibole polymorph*. American Mineralogist, 91: 479-482.
- 21) Oberti R., Càmarà F., Della Ventura G., **Iezzi G.**, Benimoff A.I. (2006). *Parvo-mangano-edenite and parvo-manganotremolite, two new Group 5 monoclinic amphiboles from Fowler, New York, and comments on the solid solution between Ca and Mn^{2+} at the M4 site*. American Mineralogist, 91: 526-532.
- 22) Ventura G., Del Gaudio P., **Iezzi G.** (2006). *Enclaves provide new insights on the dynamics of magma mingling: a case study from Salina Island (Southern Tyrrhenian Sea, Italy)*. Earth and Planetary Science Letters, 243: 128-140.
- 23) Oberti R., Quartieri S., Dalconi M.C., Boscherini F., **Iezzi G.**, Boiocchi M., Eeckhout S. (2006). *Site preference and local geometry of Sc in garnets: I Multivariuous mechanisms in the pyrope-grossular join*. American Mineralogist, 91: 1230-1239.
- 24) Càmarà F., **Iezzi G.**, Tiepolo M., Oberti R. (2006). *The crystal chemistry of lithium and Fe^{3+} incorporation in orthopyroxene*. Physics and Chemistry of Minerals, 33: 475-483.
- 25) **Iezzi G.**, Della Ventura G., Bellatreccia F., Lo Mastro S., Bandli B.R., Gunter M.E. (2007). *Site occupancy in richterite-winchite from Libby, Montana, USA, by FTIR spectroscopy*. Mineralogical Magazine, 71: 93-104.
- 26) Quartieri S., Boscherini F., Dalconi M.C., **Iezzi G.**, Meneghini C., Oberti R. (2008). *Magnesium K-edge EXAFS study of bond-length behaviour in synthetic pyrope-grossular garnet solid solution*. American Mineralogist, 93: 495-498.
- 27) **Iezzi G.**, Mollo S., Ventura G., Cavallo A., Romano C. (2008). *Experimental solidification of anhydrous latitic and trachytic melts at different cooling rates: the role of nucleation kinetics*. Chemical Geology, 253, 3-4: 91-101.
- 28) Tribaudino M., Bruno M., **Iezzi G.**, Della Ventura G., Margiolaki I. (2008). *The thermal behaviour of richterite*. American Mineralogist, 93: 1659-1665.
- 29) Della Ventura G., Bellatreccia F., **Iezzi G.**, Oberti R., Càmarà F. (2008). *The $P2_1/m - C2/m$ phase transition in synthetic amphiboles in the system $Li_2O-Na_2O-MgO-SiO_2-H_2O$: an high-T FTIR study*. European Journal of Mineralogy, 20: 1019-1026.
- 30) **Iezzi G.**, Liu Z., Della Ventura G. (2009). *Synthetic ${}^A Na^B (Na_x Li_{1-x} Mg_1)^C Mg_5 Si_8 O_{22} (OH)_2$ (with $x=1, 0.6, 0.2$ and 0) $P2_1/m$ amphiboles at high pressure: a synchrotron infrared study*. Physics and Chemistry of Minerals, 36: 343-354.
- 31) Del Gaudio P., Mollo S., Ventura G., **Iezzi G.**, Taddeucci J., Cavallo A. (2010). *Cooling rate-induced differentiation in anhydrous and hydrous basalts at 500 MPa: implications for the storage and transport of magmas in dikes*. Chemical Geology, 270: 164-178.
- 32) **Iezzi G.**, Della Ventura G., Tribaudino M., Nemeth P., Margiolaki I., Cavallo A., Gaillard F., Behrens H. (2010). *Phase transition induced by solid-solution: the ${}^B Ca-{}^B Mg$ substitution in richteritic amphiboles*. American Mineralogist, 95: 369-381.

- 33) Mollo S., Del Gaudio P., Ventura G., **Iezzi G.**, Scarlato P. (2010). *Dependence of clinopyroxene composition on cooling rate in basaltic magmas: implication for thermo-barometry*. Lithos, 118: 302-312.
- 34) **Iezzi G.**, Tribaudino M., Della Ventura G., Margiolaki I. (2011). *The high temperature P2₁/m – C2/m phase transition in synthetic amphiboles along richterite – (^{BMg})-richterite join*. American Mineralogist, 96: 353-363.
- 35) **Iezzi G.**, Mollo S., Torresi G., Ventura G., Cavallo A., Scarlato P. (2011). *Experimental solidification of an andesitic melt by cooling*. Chemical Geology, 283: 261-273.
- 36) Mollo S., Putirka K., **Iezzi G.**, Del Gaudio P., Scarlato P. (2011). *Plagioclase-melt(dis)-equilibrium due to cooling dynamics: implications for thermometry, barometry and hygrometry*. Lithos, 125: 221-235.
- 37) Mollo S., Vinciguerra S., **Iezzi G.**, Iarocci A., Scarlato P., Heap M.J., Dingwell D.B. (2011). *Volcanic edifice weakening via devolatilization reactions*. Geophysical Journal International, doi: 10.1111/j.1365-246Z.2011.05097.x.
- 38) Mollo S., Lanzafame G., Masotta M., **Iezzi G.**, Ferlito C., Scarlato P. (2011). *Cooling history of a dike as revealed by mineral chemistry: a case study from Mt. Etna volcano*. Chemical Geology, 288: 39-52.
- 39) Mollo S., **Iezzi G.**, Ventura G., Cavallo A., Scarlato P. (2012). *Heterogeneous nucleation mechanisms and formation of metastable phase assemblages induced by different crystalline seeds in a rapidly cooled andesitic melt*. Journal of Non-Crystalline Solids: 358: 1624-1628.
- 40) Mollo S., Heap M.J., **Iezzi G.**, Hess K.-U., Scarlato P., Dingwell D.B. (2012). *Volcanic edifice weakening via decarbonation: a self-limiting process?*. Geophysical Research Letters, doi: 10.1029/2012GL052613.
- 41) Heap M.J., Mollo S., Vinciguerra S., Lavallée Y., Hess K.-U., Dingwell D.B., Baud P., **Iezzi G.** (2013). *Thermal weakening of the carbonate basement under Mt. Etna volcano (Italy): Implications for volcano instability*. Journal of Volcanology and Geothermal Research: 250: 42-60.
- 42) Mollo S., Putirka K., **Iezzi G.**, Ferlito C., Scarlato P. (2013). *The control of cooling rate on titanomagnetite composition: implications for a geospeedometry model applicable to alkaline rocks from Mt. Etna volcano*. Contributions to Mineralogy and Petrology, 165: 457-475.
- 43) Lanzafame G., Mollo S., **Iezzi G.**, Ferlito C., Ventura G. (2013). *Unravelling the solidification path of a pahoehoe “cicirara” lava from Mount Etna volcano*. Bulletin of Volcanology, 75-4: 1-16.
- 44) Walter J.M., **Iezzi G.**, Albertini G., Gunter M.E., Piochi M., Ventura G., Jansen E., Fiori F. (2013). *Enhanced crystal fabric analysis of a lava flow sample by neutron texture diffraction: a case study from the Castello d’Ischia dome*. Geochemistry, Geophysics, Geosystems, 14:-1: 179-196.
- 45) Mollo S., Heap M. J., Dingwell D. B., Hess K.-U., **Iezzi G.**, Masotta M., Scarlato P., Vinciguerra S. (2013). *Decarbonation and thermal microcracking under magmatic P-T-fCO₂ conditions: the role of skarn substrata in promoting volcanic instability*. Geophysical Journal International, 195-1: 369-380.
- 46) Vetere F., **Iezzi G.**, Behrens H., Cavallo A., Misiti V., Dietrich M., Knipping J., Ventura G., Mollo S. (2013). *Intrinsic solidification behaviour of basaltic to rhyolitic melts: A cooling rate experimental study*. Chemical Geology, 354: 233-242.
- 47) Mollo S., Blundy J.D., **Iezzi G.**, Scarlato P., Langone A. (2013). *The partitioning of trace elements between clinopyroxene and trachybasaltic melt during rapid cooling and crystal growth*. Contributions to Mineralogy and Petrology, 166-6: 1633-1654.

- 48) **Iezzi G.**, Caso C., Ventura G., Vallefucio M., Cavallo A., Behrens H., Mollo S., Paltrinieri D., Signanini P., Vetere F., (2014). *First documented deep submarine explosive eruptions at the Marsili Seamount (Tyrrhenian Sea, Italy): a case of historical volcanism in the Mediterranean Sea*. Gondwana Research, 25: 764-774.
- 49) Scarlato P., Mollo S., Blundy J. D., **Iezzi G.**, Tiepolo M. (2014). *The role of natural solidification paths on REE partitioning between clinopyroxene and melt*. Bulletin of Volcanology, 76: 810-813.
- 50) **Iezzi G.**, Mollo S., Shahini E., Cavallo A., Scarlato P. (2014). *The cooling kinetics of plagioclase revealed by electron microprobe mapping*. American Mineralogist, 99: 898-907.
- 51) Mollo S., Giacomoni P.P., Coltorti M., Ferlito C., **Iezzi G.**, Scarlato P. (2015). *Reconstruction of magmatic variables governing recent Etnean eruptions: constraints from mineral chemistry and P-T-fO₂-H₂O modelling*. Lithos, 212-215: 311-320.
- 52) Vetere F., Mollo S., Giacomoni P.P., **Iezzi G.**, Coltorti M., Ferlito C., Holtz F., Perugini D., Scarlato P. (2015). *Experimental constraints on the origin of pahoehoe “cicirara” lavas at Mt. Etna volcano (Sicily, Italy)*. Bulletin of Volcanology, 77: DOI 10.1007/s00445-015-0931-1.
- 53) Vetere F., **Iezzi G.**, Behrens H., Holtz F., Ventura G., Misiti V., Cavallo A., Mollo S., Dietrich M. (2015). *Glass forming ability and crystallization behaviour of sub-alkaline silicate melts*. Earth-Science Reviews, 150: 25-44.
- 54) Fiege A., Vetere F., **Iezzi G.**, Simon A., Holtz F. (2015). *The roles of decompression rate and volatiles (H₂O+Cl±CO₂±S) on crystallization in (trachy-) basaltic magma*. Chemical Geology, 411: 310-322.
- 55) **Iezzi G.**, Bromiley G. D., Cavallo A., Das P.P. Karavassili F., Margiolaki I., Stewart A.A., Tribaudino M., Wright J.P. (2016). *Solid solution along the synthetic LiAlSi₂O₆ (spodumene) – LiFeSi₂O₆ (ferri-spodumene) join: a general picture of solid solutions, bond lengths, lattice strains, steric effects, symmetries and chemical compositions of Li clinopyroxenes*. American Mineralogist, 101: 2498-2513.
- 56) Della Ventura G., Redhammer G.J., Robert J.-L., Sergent J., **Iezzi G.**, Cavallo A., (2016). *Synthesis and crystal-chemistry of amphiboles along the join richterite – ferrichterite: a combined spectroscopic (FTIR Mössbauer), XRPD and microchemical study*. The Canadian Mineralogist, 54: 97-114.
- 57) Yao S., **Iezzi G.**, Della Ventura G., Bellatreccia F., Petibois C., Marcelli A., Nazzari M., Lazzarin F., Di Gioacchino M., Petrarca C. (2017). *Mineralogy and textures of Riebeckitic asbestos (crocidolite): the role of single vs agglomerated fibres in toxicological experiments*. Journal of Hazardous Materials, 340: 472-485.
- 58) Mollo S., Tuccimei P., Galli G., **Iezzi G.**, Scarlato P. (2017). *The imprint of thermally-induced devolatilization phenomena on radon signal: Implications for the geochemical survey and public health in volcanic areas*. Geophysical Journal International, 211: 558-571.
- 59) **Iezzi G.**, Elbrecht A.L., Davis M., Vetere F., Misiti V., Mollo S., Cavallo A. (2017). *Glass stability (GS) of chemically complex (natural) sub-alkaline glasses*. Journal of non-crystalline solids, 477: 21-30.
- 60) Lanzafame G., **Iezzi G.**, Mancini L., Lezzi F., Mollo S., Ferlito C. (2017). *Solidification and turbulence (non-laminar) during magma ascent: insights from 2D and 3D analyses of bubbles and minerals in an Etnean dyke*. Journal of Petrology, 58: 1511-1534.
- 61) Heap M., Reuschlé T., Baud P., Renard F., **Iezzi G.** (2018). *The permeability of stylolite-bearing limestone*, submitted to Journal of Structural Geology, 116: 81-93.

- 62) Sbroscia M., Della Ventura G., **Iezzi G.**, Sodo A. (2018). *Quantifying the A-site occupancy in amphiboles: a Raman study in the OH-stretching region*. European journal of Mineralogy, doi.org/10.1127/ejm/2018/0030-2727.
- 63) Della Ventura G., Vigliaturo R., Gieré R., Pollastri S., Gualtieri A.F., **Iezzi G.** (2018). *FTIR Spectroscopy of the Regulated Asbestos Amphiboles*. Minerals, special issue "Occurrence, Crystal-Chemistry and Properties of Fibrous Minerals", [doi: 10.20944/preprints201808.0387.v1](https://doi.org/10.20944/preprints201808.0387.v1).
- 64) Della Ventura G., Hawthorne F.C., **Iezzi G.** (2019). *Synthesis and solid solution in "rubidium richterite", $Rb(NaCa)Mg_5Si_8O_{22}(OH,F)_2$* . Physics and Chemistry of Minerals, 46: 759-770.
- 65) Mollo S., Tuccimei P., Soligo M., Galli G., **Iezzi G.**, Scarlato P. (2019). *Transient to stationary radon (^{220}Rn) emissions from a phonolitic rock exposed to subvolcanic temperatures*. Royal Society Open Science, doi.org/10.1098/rsos.190782.
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Editor and reviewer of:

- editor of the *Periodico di Mineralogia* (J.C.R. journal) until 31/12/2015;
- reviewer of scientific journals: *American Mineralogist*, *Chemical Geology*, *European Journal of Mineralogy*, *Geochimica et Cosmochimica Acta*, *Journal of Archaeological Science: Reports*, *Archeometry*, *Journal of Hazardous Materials*, *Journal of Petrology*, *Journal of Volcanology and Geothermal Research*, *Mineralogical Magazine*, *Mineralogy and Petrology*, *Periodico di Mineralogia*, *Physics and Chemistry of Minerals*, *Quaternary Science Reviews*, *Rendiconti della Accademia dei Lincei*.
- reviewer of several national (SIR, FIRB: "Futuro in Ricerca 2013", VQR-2004-2010: <http://www.anvur.org/attachments/article/244/Referee%20VQR.pdf> e VQR-2011-2014: http://www.anvur.org/attachments/article/825/Elenco_nominativo_revisori.pdf)
- reviewer of international projects (NSF: **National Science Foundation 2010**, ASF: Austrian Science Fund, 2008 and 2015).
- External reviewer of many PhD theses: 2010 - Di Rocco T. PhD. Thesis "Petrology of cumulate and skarn rocks from Colli Albani Volcanic District: implications on magma-carbonate whole rock interaction", Università della Sapienza, Roma; 2010 - Vona A. PhD. Thesis "Reologia multiphase dei magmai alcalini italiani, Università di Roma Tre; 2014 - Radica F. Ph.D. thesis "A crystal-chemical study of cordierite, synthesis and stability at variable H₂O and CO₂ concentration: geological and technological applications", Università di Roma Tre;
- Commission for final evaluation: 11/04/2012 - Dottorato di Ricerca in Scienze della Terra, Università di Camerino; 24-10-2016 - Dottorato di Ricerca in Applied Sciences for the Protection of the Environment and Cultural Heritage, Università della Sapienza, Roma ; 28-03-2017 - Dottorato di Ricerca in Scienze della Terra, Università di Bari

Convenor:

- From Glass to Magma: Nucleation and Crystal Growth in Magmatic and Synthetic Silicate Melts (8k, in the general session "Melts, glasses, magmas: From properties to processes"), organised by Armienti P., **Iezzi G.** and Hammer J., **Goldschmidt 2013** (25-30 August) – Firenze, Italy;
- Crystallization Processes in Magmatic Systems (16g, in the general session Petrology and Process: Micro to Macro), organised by Vetere F., **Iezzi G.** and Mollo S., **Goldschmidt 2015** (16-21 August) – Prague, Czech Republic.

Talks and lectures in workshops:

- **Iezzi G.** (2002). Lithium in amphiboles. BGI, Bayreuth, settembre 2002.
- **Iezzi G.** (2005). Lo studio delle transizioni di fase ad alta *T* e *P* tramite l'uso della spettroscopia FTIR: l'esempio degli anfiboli sintetici nel sistema LNMSH. Dipartimento di Scienze della Terra, Università di Milano, ottobre 2005.
- **Iezzi G.** (2006). Crystal Size Distribution of synthetically crystallised peralkaline volcanic rocks. DPC-project Campi Flegrei, UR: V3_2/09, Osservatorio Vesuviano, gennaio 2006.

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- **Iezzi G., Piccinini M.** (2009). Spettroscopia FTIR in condizioni non-ambientali. Short Course “Microspettroscopia FTIR ed applicazioni alle scienze della Terra, 7-8 settembre 2009, Rimini, Geoitalia.
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