

## Prof. Massimo TIEPOLO

### INFORMAZIONI PERSONALI

Anno di nascita: ██████

Cittadinanza: Italiana

Posizione: Professore Ordinario

Dipartimento di Scienze della Terra, Università degli Studi di Milano

E-Mail: massimo.tiepolo@unimi.it

### ESPERIENZA PROFESSIONALE

**Dal 2018 Professore Universitario Ordinario (prima fascia)**

Settore concorsuale 04/A1 - Geochimica, Mineralogia, Petrologia, Vulcanologia, Georisorse ed Applicazioni; SSD GEO/08 - Geochimica e Vulcanologia

Dipartimento di Scienze della Terra, Università degli Studi di Milano

www.unimi.it, [www.dipterra.unimi.it/ecm/home](http://www.dipterra.unimi.it/ecm/home)

**Dal 2015 al 2018 Professore Universitario Associato (seconda fascia)**

Settore concorsuale 04/A1 - Geochimica, Mineralogia, Petrologia, Vulcanologia, Georisorse ed Applicazioni; SSD GEO/08 - Geochimica e Vulcanologia

Dipartimento di Scienze della Terra, Università degli Studi di Milano

www.unimi.it, [www.dipterra.unimi.it/ecm/home](http://www.dipterra.unimi.it/ecm/home)

**Dal 2007 al 2015 Primo Ricercatore C.N.R.**

Istituto di Geoscienze e Georisorse Unità Operativa di Pavia

**Dal 2002 al 2007 Ricercatore C.N.R.**

Istituto di Geoscienze e Georisorse Unità Operativa di Pavia

**Dal 2000 al 2002 Assegnista di Ricerca**

Dipartimento di Scienze della Terra, Università di Pavia

### ISTRUZIONE E FORMAZIONE

**Dal 1995 al 1999 Dottore di Ricerca (PhD) in Scienze della Terra**

Titolo acquisito presso Università degli Studi di Pavia

Titolo della Tesi di dottorato: "Determinazione sperimentale di coefficienti di distribuzione solido/liquido in anfiboli di mantello: ruolo del controllo cristallografico"

**Dal 1990 al 1995 Dottore di Scienze Geologiche**

Titolo acquisito presso Università degli Studi di Pavia

Titolo della Tesi di laurea: "Studio petrologico e geochimico dei gabbri ofiolitici della Toscana e della Liguria orientale"

### ULTERIORI INFORMAZIONI

**Ruoli editoriali**

Membro dal 2005 dell' "Editorial Board" della rivista internazionale "LITHOS" edita da ELSEVIER che pubblica articoli scientifici a carattere petrologico-geochimico.

## Riconoscimenti e premi

Premio per la miglior tesi di dottorato conferito dalla Società Italiana di Mineralogia e Petrologia (SIMP). Bellaria, 20 Settembre 1999.

---

## Revisore per agenzie nazionali o internazionali di finanziamento alla ricerca

2017 Swiss National Science Foundation  
2012, 2013 Czech Science Foundation (CSZ)  
2013 Netherlands Organization for Scientific Research (NOSR)  
2008, 2012, 2013 MIUR  
2012 Agence Nationale de la Recherche (ANR-France)

---

## Partecipazione a progetti di ricerca nazionali ed internazionali (2006 - 2018)

Progetto CARIPLO 75 -2013 - "Università di Pavia: sviluppo di uno standard formativo di livello internazionale per tutti i corsi di dottorato" for the organization of the PhD school "Zircon a key mineral for dating and tracking geological processes". 2013  
Progetto J-ARC (Japan amphibole rich crust) - 2008. Kanazawa University (Japan).  
CNR RSTL - 2007. "Chronology (U-Pb) and Hf isotope composition of accessory phases with laser ablation ICPMS.  
CNR Agenzia - 2000 "Development of an in situ method for the U-Pb dating of zircon with LA-ICP-MS: first applications to magmatic events related to the Alpine orogen".  
CNR Istituto di Fisiologia Clinica - 2014. "Heavy metal contamination of the Serchio Valley (Tuscany)".  
PNRA 2006/4.01: "Cambiamenti climatici, paleoceanografia dell'Oceano Meridionale (settore meridionale dell'Oceano Indiano) e fluttuazioni della calotta antartica orientale durante il Miocene medio, dedotti dall'analisi dei sedimenti del Kerguelen Plateau, Antartide".  
MIUR PRIN 2015: "Melt-rock reaction and melt migration in the MORB mantle through combined natural and experimental studies".  
MIUR PRIN 2012: "Trasferimento di elementi volatili ai margini di placca convergenti: relazioni tra eterogeneità dei fluidi/fusi COH e anomalie tettoniche nelle zone di subduzione"  
PNRA 2010: "Terminal evolution and reactivation of the Ross Orogen in the northern Victoria Land: correlation with the Delamerian and the Lachlan orogens of the south-eastern Australia".  
PNRA 2004/4.06: "Dynamic and chronologic zoning of the Ross orogen".  
MIUR PRIN 2009: "Triassic-Jurassic evolution of the lithospheric mantle in the Europa-Adria system and processes of magmatic accretion of the crust".  
MIUR PRIN 2007: "Mantle heterogeneity and geodynamic evolution of the lithosphere-asthenosphere system".  
MIUR PRIN 2005: Lithosphere evolution induced by mantle melt migration in different geodynamic contexts".  
MIUR PRIN 2003: "The role of the melt-peridotite interaction processes in the modification and evolution of the lithospheric mantle".  
MIUR PRIN 2002: "Geo-crystal chemistry of trace elements".  
MIUR PRIN 2000: "Experimental determination of solid/liquid partition coefficients and their use in the mantle processes interpretation".  
MIUR PRIN 1998: "Trace element residence in subduction and supra-subduction settings".

---

## Attività di ricerca presso istituti di elevata qualificazione

"Research fellowship" - Université Blaise Pascal - Clermont Ferrand - Laboratoire de Magmas et Volcans - Development and improvements of methods for U-Pb geochronology of U-rich minerals with La-ICP-MS. 2010.  
"Research fellowship" - Institute for Study of the Earth's Interior, Okayama University Misasa, Japan In situ Pb and B isotope analyses of volcanic materials by ion microprobe. 2005

---

## Attività didattica

Svolge attività didattica, nelle forme di corsi ad incarico e collaborazioni per le lezioni tecnico-pratiche di laboratorio e di terreno, presso l'Università degli Studi di Milano per i Corsi di Laurea

Triennale e Magistrale in Scienze Geologiche, ed in particolare per gli insegnamenti:

- Geochimica (Laurea F65, dall'anno accademico 2014/2015 a tuttora 6 cfu)
- Analisi di Minerali rocce e Fluidi (Laurea F-97, dall'anno accademico 2014/2015 a 2018/19 9 cfu)
- Geochimica Ambientale (Laurea F2B, dall'anno accademico 2018/19 a tuttora, 6 cfu)

Afferisce al Collegio Docenti del Dottorato in Scienze della Terra - UniMI.

#### Pubblicazioni

1. R. Avanzinelli, G. Bianchini, M. Tiepolo, A. Jasim, C. Natali, E. Braschi, L. Dallai, L. Beccaluva, S. Conticelli (2020). Subduction-related hybridization of the lithospheric mantle revealed by trace element and Sr-Nd-Pb isotopic data in composite xenoliths from Tallante (Betic Cordillera, Spain). *Lithos*, 352-353, 105316
2. A. Esna-Ashari, M. Tiepolo (2020). Petrogenesis of gabbroic rocks from the Malayer plutonic complex (Sanandaj-Sirjan zone, west Iran). *Periodico di Mineralogia*, 89(1), 91-104.
3. S. Stevenazzi, C.A.S. Camera, M. Masetti, R.S. Azzoni, E.S. Ferrari, M. Tiepolo (2020) Atmospheric Nitrogen Depositions in a Highly Human-Impacted Area. *Water, Air, and soil Pollution* 231(6) 276.
4. E. Cannaò, M. Tiepolo, G.E. Bebout, M. Scambelluri (2020). Into the deep and beyond: carbon and nitrogen subduction recycling in secondary peridotites. *Earth and Planet. Sci. Letters*. 543, 116328
5. Ji, Wei-Qiang, Malusà, M.G., Tiepolo, M., Langone, A., Zhao, L., Wu, Fu-Yuan (2019). Synchronous Periadriatic magmatism in the Western and Central Alps in the absence of slab breakoff. *Terra Nova*, doi: 10.1111/ter.12377
6. E. Erba, G. Gambacorta, M. Tiepolo (2019). The Gaetani Level: a potential oceanic anoxic event of early Bajocian age (Middle Jurassic). *Rivista Italiana di Paleontologia e stratigrafia*, ISSN: 2039-4942
7. Cruciani, G., Franceschelli, M., Puxeddu, M., Tiepolo, M. (2018). Metavolcanics from Capo Malfatano, SW Sardinia, Italy: New insight on the age and nature of Ordovician volcanism in the Variscan foreland zone. *Geological Journal*, 53, 1573-1585.
8. Rebay, G., Zanoni D., Langone A., Luoni P., Tiepolo M., Spalla M.I. (2018). Dating of ultramafic rocks from the Western Alps ophiolites discloses Late Cretaceous subduction ages in the Zermatt-Saas Zone. *Geological Magazine*, 155, 298-315.
9. Delleani, F., Rebay, G., Zucali, M., Tiepolo, M., Spalla M.I. (2018). Insights on variscan geodynamics from the structural and geochemical characterization of a devonian-carboniferous gabbro from the austroalpine domain (Western alps). *Ophioliti*, 43, 23-39.
10. Langone A., Zanetti A., Daczko N.R., Piazzolo S., Tiepolo M., Mazzucchelli M. (2018). Zircon U-Pb Dating of a Lower Crustal Shear Zone: A Case Study From the Northern Sector of the Ivrea-Verbano Zone (Val Cannobina, Italy). *Tectonics*, 37, 322-342.
11. Langone A., Padron navarta J.A. Ji W-Q. Zanetti A., Mazzucchelli M., Tiepolo M., Giovanardi T., Bonazzi M. (2017). Ductile-brittle deformation effects on crystal-chemistry and U-Pb ages of magmatic and metasomatic zircons from a dyke of the Finero Mafic Complex (Ivrea-Verbano Zone, Italian Alps). *Lithos*, 284, 493-511.
12. Renna M.R., Tribuzio R., Sanfilippo A., Tiepolo M. (2017) Zircon U-Pb geochronology of lower crust and quartzo-feldspathic clastic sediments from the Balagne ophiolite (Corsica) *Swiss Journal of Geoscience*, 110, 479-501.
13. Casagli A., Frezzotti M.L. Peccerillo A., Tiepolo M., De Astis G. (2017). (Garnet)-spinel peridotite xenoliths from Mega (Ethiopia): Evidence for rejuvenation and dynamic thinning of the lithosphere beneath the southern Main Ethiopian Rift. *Chemical Geology*, 455, 231-248.
14. Gautier P., Bosse V., Cherneva Z., Didier A., Gerdjikov I., Tiepolo M. (2017). Polycyclic alpine orogeny in the Rhodope metamorphic complex: the record in migmatites from the Nestos shear zone (N. Greece). *Bulletin de la Societe Geologique de France*, 188, 1-28.
15. Zanetti A., Giovanardi T., Langone A., Tiepolo M., Wu F.Y., Dallai L., Mazzucchelli M. (2016). Origin and age of zircon-bearing chromitite layers from the Finero phlogopite peridotite (Ivrea-Verbano Zone, Western Alps) and geodynamic consequences. *Lithos*, 262, 58-74.
16. Esna-Ashari A., Tiepolo M., Hassenzadeh J. (2016). On the occurrence and implications of Jurassic primary continental boninite-like melts in the Zagros orogen. *Lithos*, 258, 37-57.

17. Hassan M., Stuwe K., Abu-Alam T.S., Klotzli U., Tiepolo M. (2016). Time constraints on deformation of the Ajaj branch of one of the largest Proterozoic shear zones on Earth: The Najd Fault System. *Gondwana Research*, 34, 346-362.
18. Sanfilippo A., Dick H.J.B., Ohara Y., Tiepolo M. (2016). New insights on the origin of troctolites from the breakaway area of the Godzilla Megamullion (Parece Vela back-arc basin): The role of melt-mantle interaction on the composition of the lower crust. *Island Arc*, 25, 220-234.
19. Tribuzio R., Garzetti F., Corfu F., Tiepolo M., Renna M.R. (2016). U-Pb zircon geochronology of the Ligurian ophiolites (Northern Apennine, Italy): Implications for continental breakup to slow seafloor spreading. *Tectonophysics*, 666, 220-243.
20. Otamendi J., Tiepolo M., Walker B.a., Cristofolini E.A., Tibaldi A.M. (2016). Trace elements in minerals from mafic and ultramafic cumulates of the central Sierra de Valle Fertil, Famatinian arc, Argentina. *Lithos*, 240, 355-370.
21. Langone A., Tiepolo M. (2015). U-Th-Pb "multi-phase" approach to the study of crystalline basement: application to the northernmost sector of the Ivrea-Verbano Zone (Alps). *Periodico di Mineralogia*, 84, 633-655.
22. Tamburrino S., Vallefucio M., Ventura G., Insinga D., Sprovieri M., Tiepolo M., Passaro S. (2015). The proximal marine record of the Marsili Seamount in the last 7 ka (Southern Tyrrhenian Sea, Italy): Implications for the active processes in the Tyrrhenian Sea back-arc. *Global and Planetary Change*, 133, 2-16.
23. Sanfilippo A., Tribuzio R., Tiepolo M., Berno D. (2015). Reactive flow as dominant evolution process in the lowermost oceanic crust: evidence from olivine of the Pineto ophiolite (Corsica). *Contributions to Mineralogy and Petrology*, 170.
24. Berra F., Tiepolo M., Caironi V., Siletto G.B. (2015). U-Pb zircon geochronology of volcanic deposits from the Permian basin of the Orobic Alps (Southern Alps, Lombardy): chronostratigraphic and geological implications. *Geological Magazine*, 152, 429-443.
25. Bianchini G., Braga R., Langone A., Natali C., Tiepolo M. (2015). Metasedimentary and igneous xenoliths from Tallante (Betic Cordillera, Spain): Inferences on crust-mantle interactions and clues for post-collisional volcanism magma sources. *Lithos*, 220, 191-199.
26. Neumann E.R., Abu El-Rus M.A., Tiepolo M., Ottolini L., Vannucci R., Withehouse M. (2015) Serpentinization and Deserpentinization Reactions in the Upper Mantle beneath Fuerteventura Revealed by Peridotite Xenoliths with Fibrous Orthopyroxene and Mottled Olivine. *Journal of Petrology*, 56, 3-31.
27. Laurita S., Prosser G., Rizzo G., Langone A., Tiepolo M., Laurita A. (2014) Geochronological study of zircons from continental crust rocks in the Frido Unit (southern Apennines). *International Journal of Earth Sciences*, 104, 179-203.
28. Tiepolo M. and Vannucci R. (2014). The contribution of amphibole from deep arc crust to the Silicate Earth's Nb budget. *Lithos*, 208, 16-20.
29. Estrade G., Béziat D., Salvi S., Tiepolo M., Paquette J-L., Rakotovo S. (2014). Unusual evolution of silica-under- and -oversaturated alkaline rocks in the Cenozoic Ambohimirahavy Complex (Madagascar): Mineralogical and geochemical evidence. *Lithos*, 206, 361-383.
30. Tiepolo M., Tribuzio R., Ji W.Q., Wu F.Y., Lustrino M. (2014). Alpine Tethys closure as revealed by amphibole-rich mafic and ultramafic rocks from the Adamello and the Bergell intrusions (Central Alps). *Journal of the Geological Society, London*, 171, 793-799.
31. Sanfilippo A., Tribuzio R., Tiepolo M. (2014). Mantle-crust interactions in the oceanic lithosphere: Constraints from minor and trace elements in olivine. *Geochimica et Cosmochimica Acta*, 141, 423-439.
32. Giovanardi, T., Mazzucchelli, M., Zanetti, A., Langone, A., Tiepolo, M., Cipriani A. (2014). Occurrence of phlogopite in the Finero Mafic layered complex. *Central European Journal of Geosciences*, 6, 588-613.
33. Rakotosamizanany S., Giuliani G., Ohnenstetter D., Rakotondrazafy A.F.M., Fallick A.E., Paquete J.L., Tiepolo M. (2014). Chemical and oxygen isotopic compositions, age and origin of gem corundums in Madagascar alkali basalts. *Journal of African earth Sciences*, 94, 156-170.
34. 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, 1-4.
35. Insinga DD, Tamburrino S, Lirer F, Vezzoli L, Barra M, De Lange GJ, Tiepolo M, Vallefucio M, Mazzola S, Sprovieri M. (2014). Tephrochronology of the astronomically-tuned KC01B deep-sea core, Ionian Sea: insights into the explosive activity of the Central Mediterranean area during the last 200 ka. *Quaternary Science Review*, 85, 63-84.

36. Cruciani G., Franceschelli, M., Musumeci, G., Spano ME, Tiepolo M. (2013). U-Pb zircon dating and nature of metavolcanics and metarkoses from the Monte Grighini Unit: new insights on Late Ordovician magmatism in the Variscan belt in Sardinia, Italy. *International Journal of Earth Science*, 102, 2077-2096.
37. Kosler J., Slama J., Belusova, E., Corfu F., Gehrels GE., Gerdes A., Horstwood, MSA., Siricombe KN., Sylvester PJ., Tiepolo M., more. (2013). U-Pb Detrital Zircon Analysis - Results of an Inter-laboratory Comparison. *Geostandard and Geonalytical research*, 37, 243-259.
38. Nyland R.E., Panter, K., Rocchi S., Di Vincenzo, G., Del Carlo P., Tiepolo M., Field, B. Gorevski P. (2013). Volcanic activity and its link to glaciation cycles: Single-grain age and geochemistry of Early to Middle Miocene volcanic glass from ANDRILL AND-2A core, Antarctica. *Journal of Volcanology and Geothermal Research*, 250, 106-128.
39. Ghorbani M.R., Ahmadi A.R., Tiepolo M., Langone A. (2013). Clinopyroxene chemistry in Tertiary alkaline volcanic rocks from Taleghan, central Alborz, Iran: Implications for two parental melts., *Chemie der Erde-Geochemistry* 73, 565-568.
40. Maino M., Dallagiovanna, G., Gaggero L., Seno S., Tiepolo M. (2012). U-Pb zircon geochronological and petrographic constraints on late to post-collisional Variscan magmatism and metamorphism in the Ligurian Alps, Italy. *Geological Journal*, 47, 632-652.
41. Uysal I, Ersoy EY, Karli O, Dilek Y, Sadiklar MB, Ottley CJ, Tiepolo M, Meisel T (2012). Coexistence of abyssal and ultra-depleted SSZ type mantle peridotites in a Neo-Tethyan Ophiolite in SW Turkey: Constraints from mineral composition, whole-rock geochemistry (major-trace-REE-PGE), and Re-Os isotope systematics. *Lithos*, 132, 50-69.
42. Francalanci L, Avanzinelli R, Nardini I, Tiepolo M, Davidson JP, Vannucci R (2012). Crystal recycling in the steady-state system of the active Stromboli volcano: a 2.5-ka story inferred from in situ Sr-isotope and trace element data. *Contributions to Mineralogy and Petrology*, 163, 109-131.
43. Di Giulio A, Ronchi A, Sanfilippo A, Tiepolo M, Pimentel M, Ramos VA (2012). Detrital zircon provenance from the Neuquen Basin (south-central Andes): Cretaceous geodynamic evolution and sedimentary response in a retroarc-foreland basin. *Geology*, 40, 559-562.
44. Casini L, Cuccuru S, Maino M, Oggiano G, Tiepolo M (2012). Emplacement of the Arzachena Pluton (Corsica-Sardinia Batholith) and the geodynamics of incoming Pangaea. *Tectonophysics*, 544, 31-49.
45. Esna-Ashari A, Tiepolo M, Valizadeh MV, Hassanzadeh J, Sepahi AA (2012). Geochemistry and zircon U-Pb geochronology of Aligoodarz granitoid complex, Sanandaj-Sirjan Zone, Iran. *Journal of Asian Earth Sciences*, 43, 11-22.
46. Carosi R, Montomoli C, Tiepolo M, Frassi C (2012). Geochronological constraints on post-collisional shear zones in the Variscides of Sardinia (Italy). *Terra Nova*, 24, 42-51.
47. Tamburrino S, Insinga DD, Sprovieri M, Petrosino P, Tiepolo M (2012). Major and trace element characterization of tephra layers offshore Pantelleria Island: insights into the last 200 ka of volcanic activity and contribution to the Mediterranean tephrochronology. *Journal of Quaternary Science*, 27, 129-140.
48. Visona D., Carosi R, Montomoli C, Tiepolo M, Peruzzo L (2012). Miocene andalusite leucogranite in central-east Himalaya (Everest-Masang Kang area): Low-pressure melting during heating. *Lithos*, 144, 194-208.
49. Tiepolo M, Langone A, Morishita T, Yuhara M (2012). On the Recycling of Amphibole-rich Ultramafic Intrusive Rocks in the Arc Crust: Evidence from Shikanoshima Island (Kyushu, Japan). *Journal of Petrology*, 53, 1255-1285.
50. Schiavi F, Kobayashi K, Nakamura E, Tiepolo M, Vannucci R (2012). Trace element and Pb-B-Li isotope systematics of olivine-hosted melt inclusions: insights into source metasomatism beneath Stromboli (southern Italy). *Contributions to Mineralogy and Petrology*, 163, 1011-1031.
51. Micheletti, F., Fornelli, A., Piccarreta, G., Tiepolo, M., (2011). U-Pb zircon data of Variscan meta-igneous and igneous acidic rocks from an Alpine shear zone in Calabria (southern Italy). *International Journal of Earth Sciences*, 100, 139-155.
52. Renna M.R., Tiepolo M., Tribuzio R. (2011). In situ U-Pb geochronology of baddeleyite-zircon pairs using laser-ablation ICPMS: the case-study of quartz gabbro from Varney Nunatak (central Victoria Land, Antarctica). *European Journal of Mineralogy*, 23, 223-240.
53. Musumeci G., Mazzarini F., Tiepolo M., Di Vincenzo G. (2011). U-Pb and (40)Ar-(39)Ar geochronology of Palaeozoic units in the northern Apennines: determining protolith age and alpine evolution using the Calamita Schist and Ortano Porphyroid. *Geological Journal*, 46, 288-310.
54. Quidelleur X., Paquette J. L., Fiet N., Takashima R., Tiepolo M., Desmares D., Nishi H.,



- Grosheny D. (2011). New U-Pb (ID-TIMS and LA-ICPMS) and  $(40)\text{Ar}/(39)\text{Ar}$  geochronological constraints of the Cretaceous geologic time scale calibration from Hokkaido (Japan). *Chemical Geology*, 286, 72-83.
55. Tiepolo M., Tribuzio R., Langone A., (2011). High-Mg andesite petrogenesis by amphibole crystallisation and ultramafic crust assimilation: evidence from Adamello hornblendites (Central Alps, Italy). *Journal of Petrology*, 52, 5, 1011-1045.
  56. Langone A., Braga R., Massonne, H.J., Tiepolo, M. (2011). Preservation of old (prograde metamorphic) U-Th-Pb ages in unshielded monazite from the high-pressure paragneisses of the Variscan Ulten Zone (Italy). *Lithos*, 127, 68-85.
  57. Martin, E., Paquette, J.L., Bosse, V., Ruffet, G., Tiepolo, M., Sigmarsson O. (2011). Geodynamics of rift-plume interaction in Iceland as constrained by new Ar-40/Ar-39 and in situ U-Pb zircon ages. *Earth and Planetary Science Letters*, 311, 28-38.
  58. Giacomini F., Boerio V., Polattini S., Tiepolo M., Tribuzio R., Zanetti A. (2010). Evaluating asbestos fibre concentration in metaophiolites: a case study from the Voltri Massif and Sestri-Voltaggio Zone (Liguria, NW Italy). *Environmental Earth Science*, 61, 1621-1639
  59. Cucciniello C., Langone A., Melluso L., Morra V., Mahoney J.J., Meisel T., Tiepolo M. (2010). U-Pb Ages, Pb-Os Isotope Ratios, and Platinum-Group Element (PGE) Composition of the West-Central Madagascar Flood Basalt Province. *Journal of Geology*, 118, 523-541.
  60. Gasquet D., Bertrand J.M., Paquette J.L., Lehmann J., Ratzov G., Guedes R.D., Tiepolo M., Boullier A.M., Scaillet S., Nomade S. (2010). Miocene to Messinian deformation and hydrothermal activity in a pre- Alpine basement massif of the French western Alps: new U-Th-Pb and argon ages from the Lauziere massif. *Bulletin de la Societe Geologique de France*. 181, 227-241.
  61. Aldanondo N., Cotano U., Tiepolo M., Boyra G., Irigoien X. (2010). Growth and movement patterns of early juvenile European anchovy (*Engraulis encrasicolus* L.) in the Bay of Biscay based on otolith microstructure and chemistry. *Fisheries Oceanography*, 19, 196-208.
  62. Oggiano G., Gaggero L., Funedda A., Buzzi L., Tiepolo M. (2010). Multiple early Paleozoic volcanic events at the northern Gondwana margin: U-Pb age evidence from the Southern Variscan branch (Sardinia, Italy). *Gondwana Research*, 17, 44-58.
  63. Schiavi F., Kobayashi K., Moriguti T., Nakamura E., Pompilio M., Tiepolo M., Vannucci R. (2010). Degassing, crystallization and eruption dynamics at Stromboli: trace element and lithium isotopic evidence from 2003 ashes. *Contributions to Mineralogy and Petrology*, 159, 541-561.
  64. Langone A., Godard G., Prosser G., Caggianelli A., Rottura A., Tiepolo M. (2010). P-T-t path of the Hercynian low-pressure rocks from the Mandatoriccio complex (Sila Massif, Calabria, Italy): new insights for crustal evolution. *Journal of Metamorphic Petrology*, 28, 137-162.
  65. Conticelli S., Guarnieri L., Farinelli A., Mattei M., Avanzinelli R., Bianchini G., Boari E., Tommasini S., Tiepolo M., Prelević D. and Venturelli G. (2009). Trace elements and Sr-Nd-Pb isotopes of K-rich, shoshonitic, and calc-alkaline magmatism of the Western Mediterranean Region: genesis of ultrapotassic to calc-alkaline magmatic associations in a post-collisional geodynamic setting. *Lithos*, 107, 68-92.
  66. Dallagiovanna G., Gaggero L., Maino M., Seno S. and Tiepolo M. (2009). U-Pb zircon ages for post- Variscan volcanism in the Ligurian Alps (Northern Italy). *Journal of the Geological Society of London*, 166, 101-114.
  67. Bosse V., Boulvais P., Gautier P., Tiepolo M., Ruffet G., Devidal J.L., Cerneva Z., Gerdjikov I. and Paquette J.L. (2009). Fluid-induced disturbance of the monazite Th-Pb chronometer: In situ dating and element mapping in pegmatites from the Rhodope (Greece, Bulgaria). *Chemical Geology* 261, 286-302.
  68. Folco L., D'Orazio M., Tiepolo M., Tonarini S., Ottolini L., Perichiazzi N., Rochette P. and Glass B.P. (2009). Transantarctic Mountain microtektites: Geochemical affinity with Australasian microtektites. *Geochimica et Cosmochimica Acta*, 73, 3694-3722.
  69. Carracedo M., Paquette J.L., Alonso Olazabal A., Santos Zalduegui J. F., García de Madinabeitia S., Tiepolo M. and Gil Ibarguchi J.I. (2009). U-Pb dating of granodiorite and granite units of the Los Pedroches batholith. Implications for geodynamic models of the southern Central Iberian Zone (Iberian Massif). *International Journal of Earth Sciences*, 98, 1609-1624.
  70. Giacomini F., Dallai L., Carminati E., Tiepolo M. and Ghezzo C. (2008). Exhumation of a Variscan orogenic complex: insights from the composite granulitic-amphibolitic metamorphic basement of South- East Corsica (France). *Journal of Metamorphic Geology* 26, 403-436.
  71. Tiepolo M. and Tribuzio R. (2008). Petrology and U-Pb geochronology of Amphibole-rich

- cumulates with sanukitic affinity from Husky Ridge (Northern Victoria Land, Antarctica): insights into the role of amphibole in the petrogenesis of subduction-related magmas. *Journal of Petrology*, 49, 937-970.
72. Folco L., Rochette P., Perchiazzi N., D'Orazio M., Laurenzi M.A. and Tiepolo M. (2008). Microtektites from Victoria Land Transantarctic Mountains. *Geology* 36, 291-294.
  73. Melluso L., Cucciniello C., Petrone C.M., Lustrino M., Morra V., Tiepolo M. and Vasconcelos L. (2008). Petrology of Karoo volcanic rocks in the southern Lebombo monocline, Mozambique. *Journal of African Earth Sciences*, 52, 193-151.
  74. Bergami C., Capotondi L., Sprovieri M., Tiepolo M., Langone L., Giglio F., and Ravaioli M. (2008). Mg/ Ca ratios in the planktonic foraminifer *Neogloboquadrina Pachyderma* (sinistral) from plankton tows in the Ross Sea and the Pacific sector of the Southern Ocean (Antarctica): comparison of different methodological approaches. *Chemistry and Ecology*, 24, 39-46.
  75. Tribuzio R., Tiepolo M. and Fiameni S. (2008). A mafic-ultramafic cumulate sequence derived from boninite-type melts (Niagara Icefalls, northern Victoria Land, Antarctica). *Contribution to Mineralogy and Petrology*, 155, 619-633.
  76. Vignola P., Diella V., Oppizzi P., Tiepolo M. and Weiss S. (2008). Phosphate assemblages from the Brissago granitic pegmatite, western Southern Alps, Switzerland. *The Canadian Mineralogist* 46, 635-650.
  77. Micheletti F., Fornelli A., Piccarreta G., Barbey P. and Tiepolo, M. (2008). The basement of Calabria (southern Italy) within the context of the Southern European Variscides: LA-ICPMS and SIMS U-Pb zircon study. *Lithos*, 104, 1-11.
  78. Giacomini F., Braga R., Tiepolo M. and Tribuzio R. (2007). New constraints on the origin and age of Variscan eclogitic rocks (Ligurian Alps, Italy). *Contributions to Mineralogy and Petrology*, 153, 29-53.
  79. Miller C., Konzett J., Tiepolo M., Armstrong R.A. and Thoni M. (2007). Jadeite-gneiss from the Eclogite Zone, Tauern Window, Eastern Austria: Metamorphic, geochemical and zircon record of a sedimentary protolith. *Lithos*, 93, 68-88.
  80. Giacomini F., Tiepolo M., Dallai L. and Ghezzi C. (2007). On the onset and evolution of the Ross- Orogeny magmatism in North Victoria Land - Antarctica. *Chemical Geology*, 240, 103-128.
  81. Braun I., Cenki-Tok B., Paquette J.-L. and Tiepolo M. (2007). Petrology and U-Th-Pb geochronology of the sapphirine-quartz-bearing metapelites from Rajapalayam, Madurai Block, Southern India: evidence for polyphase Neoproterozoic high-grade metamorphism. *Chemical Geology*, 241, 129-147.
  82. Paquette J.-L. and Tiepolo M. (2007). High resolution (5mm) U-Th-Pb isotope dating of monazite with excimer laser ablation (ELA)-ICPMS. *Chemical Geology*. 240, 222-237.
  83. Di Vincenzo G., Carosi R., Palmeri R. and Tiepolo M. (2007). A comparative U-Th-Pb (zircon-monazite) and <sup>40</sup>Ar-<sup>39</sup>Ar (muscovite-biotite) study of shear zones in northern Victoria Land (Antarctica): implications for geochronology and localized reworking of the Ross Orogen. *Journal of Metamorphic Geology*, 25, 605-630.
  84. Renna M.R., Tribuzio R. and Tiepolo M. (2007). Origin and timing of the post-Variscan gabbro-granite complex of Porto (Western Corsica). *Contribution to Mineralogy and Petrology* 154 (5), 493-517.
  85. Tiepolo M., Oberti R., Zanetti A., Vannucci R. and Foley S. (2007). Trace-Element Partitioning Between Amphibole and Silicate Melt. *Reviews in Mineralogy & Geochemistry* 67, 417-451.
  86. Vannucci R., Tiepolo M., Defant M.J. and Kepezhinskas P. (2007). The metasomatic record in the shallow peridotite mantle beneath Grenada (Lesser Antilles arc). *Lithos*, 99, 25-44.
  - 87.
  88. Tiepolo M., Bouman C., Vannucci R., Schwieters J.B. (2006). Determination of  $\delta^{11}\text{B}$  in geological samples with laser ablation multicollector (Faraday and ion counting) ICPMS. *Applied Geochemistry*, 21, 788-801.
  89. Schiavi F., Tiepolo M., Pompilio M., and Vannucci R. (2006). Tracking magma dynamics by laser ablation (LA)-ICPMS trace element analysis of glass in volcanic ash: The 1995 activity of Mt. Etna, *Geophysical Research Letters*, 33, L05304, doi:10.1029/2005GL024789.
  90. Narcisi B., Petit J.R. and Tiepolo M. (2006). A volcanic marker (92 ka) for dating deep east Antarctic ice cores. *Quaternary Science Review*, 25, 2682-2687.
  91. Camara F., Iezzi G., Tiepolo M. and Oberti R. (2006). The crustal chemistry of lithium and Fe<sup>3+</sup> in synthetic orthopyroxene. *Physics and Chemistry of Minerals*, 33, 475-483.
  92. Jochum K.P., Stoll B., Herwig K., Willbold M., Hofmann A.W., Amini M., Aarburg S., Abouchami W., Hellebrand E., Mocek B., Raczek I., Stracke A., Alard O., Bouman C.,

- Becker S., Ducking M., Bratz H., Klemd R., de Bruin D., Canil D., Cornell D., de Hoog C.-J., Dalpe' C., Danyushevsky L., Eisenhauer A., Gao Y., Snow J.E., Groschopf N., Gunther D., Latkoczy C., Guillong, M., Hauri E.H., Hofer H.E., Lahaye Y., Horz K., Jacob D.E., Kasemann S.A., Kent A.J.R., Ludwig T., Zack T., Mason P.R.D., Meixner A., Rosner M., Misawa K., Nash B.P., Pfander J., Premo W.R., Sun W.D., Tiepolo M., Vannucci R., Vennemann T., Wayne D. and Woodhead J.D. (2006). MPI-DING reference glasses for in situ microanalysis: New reference values for element concentrations and isotope ratios. *Geochemistry Geophysics Geosystems*, 7, Q02008, doi: 10.1029/2005GC001060.
93. Renna M.R.R., Tribuzio R. and Tiepolo M. (2006). Interaction between basic and acid magmas during the latest stages of the post-collisional Variscan evolution: Clues from the gabbro-granite association of Ota (Corsica-Sardinia batholith). *Lithos*, 90, 92-110.
  94. Helbing H. and Tiepolo M. (2005). Age determination of Ordovician magmatism in NE Sardinia and its bearing on Variscan basement evolution. *Journal of the Geological Society of London*, 162, 689-700.
  95. Tiepolo M., Zanetti A. and Vannucci R. (2005). Determination of Li, Be and B at trace level with Laser Ablation - Inductively Coupled Plasma - Sector Field Mass Spectrometry. *Geostandards and Geoanalytical Research*, 29, 211-224.
  96. Neumann E-R, Vannucci R., Tiepolo M. (2005). N-MORB crust beneath Fuerteventura in the easternmost part of the Canary Islands: evidence from gabbroic xenoliths. *Contributions to Mineralogy and Petrology*, 150, 156-173.
  97. Tiepolo M. and Tribuzio R. (2005). Slab melting during Alpine orogeny: evidence from mafic cumulates of the Adamello batholith (Central Alps, Italy). *Chemical Geology*, 216, 271-288.
  98. Zanetti A., Tiepolo M., Oberti R., Vannucci R. (2004) Trace-element partitioning in olivine: modelling of a complete data set from a synthetic hydrous basanite melt. *Lithos*, 75, 39-54.
  99. Powell W., Zhang M., O'Reilly S. Y., Tiepolo M. (2004) Mantle amphibole trace-element and isotopic signatures trace multiple metasomatic episodes in lithospheric mantle, western Victoria, Australia. *Lithos*, 75, 141-171.
  100. Tiepolo M., Bottazzi P., Palenzona M. and Vannucci R. (2003) A laser probe coupled with ICP - double- focusing sector-field mass spectrometer for in situ analysis of geological samples and U-Pb dating of zircon. *The Canadian Mineralogist*, 41, 259-272.
  101. Tiepolo M., Zanetti A., Oberti R., Brumm R., Foley S.F., Vannucci R. (2003) Trace-element partitioning between synthetic potassic-richerites and silicate melts, and contrasts with the partitioning behaviour of pargasites and kaersutites. *European Journal of Mineralogy*, 15-2, 329-340.
  102. Tiepolo M. (2003) In situ Pb geochronology of zircon with laser ablation-inductively coupled plasma- sector field mass spectrometry. *Chemical Geology*, 199, 159-177.
  103. Foley S., Tiepolo M. and Vannucci R. (2002) Growth of early continental crust controlled by melting of amphibolite in subduction zones, *Nature*, 417, 837-840.
  104. Tiepolo M., Oberti R. and Vannucci R. (2002) Trace-element incorporation in titanite: constraints from experimentally determined solid/liquid partition coefficients. *Chemical Geology*, 191/1-3, 103-117.
  105. Tiepolo M., Tribuzio R. and Vannucci R. (2002) The composition of mantle-derived melts developed during the Alpine continental collision. *Contributions to Mineralogy and Petrology*, 144, 1-15.
  106. Tiepolo M., Bottazzi P., Foley S., Oberti R., Vannucci R. and Zanetti A. (2001) Fractionation of Nb and Ta from Zr and Hf at mantle depths: the role of titanian pargasite and kaersutite. *Journal of Petrology*, 42, 221-232.
  107. Oberti R., Vannucci R., Zanetti A., Tiepolo M. and Brumm R. (2000) A crystal-chemical re-evaluation of amphibole/melt and amphibole/clinopyroxene DTi values in petrogenetic studies. *American Mineralogist*, 85, 407-419.
  108. Tiepolo M., Vannucci R., Oberti R., Foley S., Bottazzi P. and Zanetti A. (2000) Nb and Ta incorporation and fractionation in titanian pargasite and kaersutite: crustal-chemical constraints and implications for natural systems. *Earth and Planetary Science Letters*, 176, 185-200.
  109. Tribuzio R., Tiepolo M. & Thirlwall M.F. (2000) Origin of titanian pargasite in gabbroic rocks from the Northern Apennine ophiolites (Italy): insights into the late-magmatic evolution of a MOR-type intrusive sequence. *Earth and Planetary Science Letters*, 176, 281-293.
  110. Tiepolo M., Vannucci R., Bottazzi P., Oberti R., Zanetti A. and S. Foley. (2000). Partitioning of REE, Y, Th, U and Pb between pargasite, kaersutite and basanite to trachite melts: implications for percolated and veined mantle. *Geochemistry Geophysics and Geosystems*



- (G3), vol. 1, paper number 2000GC000064.
111. Tribuzio R., Tiepolo M., Vannucci R. (2000) Evolution of gabbroic rocks of the Northern Apennine ophiolites (Italy): comparison with the lower oceanic crust from modern slow-spreading ridges. Geological Society of America Special Paper 349, 129-138.
  112. Tribuzio R., Tiepolo M., Vannucci R. and Bottazzi P. (1999) Trace element distribution within olivine-bearing gabbros from northern Apennine ophiolites (Italy): evidence for post-cumulus crystallisation in MOR-type gabbroic rocks. Contributions to Mineralogy and Petrology, 134, 123-133.
  113. Tiepolo M., Zanetti A. and Oberti R. (1999) Detection, Crystal-chemical mechanisms and petrological implications of  $[6]Ti^{4+}$  partitioning in pargasite and kaersutite. European Journal of Mineralogy, 11, 345-354.
  114. Bottazzi P., Tiepolo M., Vannucci R., Zanetti A., Foley S., Brumm R. & Oberti R. (1999) Fine-scale structural control of heavy and light rare-earth element ordering in amphibole. Contributions to Mineralogy and Petrology, 137, 36-45.
  115. Tiepolo M., Tribuzio R. and Vannucci R. (1997). Mg- and Fe-gabbroids from northern Apennine ophiolites: parental liquids and igneous differentiation process. Ofioliti 22; 57-69.

**Dati personali**

Autorizzo il trattamento dei miei dati personali ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 (Codice in materia di protezione dei dati personali) e sue successive modifiche e integrazioni, nonché del Regolamento UE 679/2016 (Regolamento Generale sulla Protezione dei dati o, più brevemente, RGPD).

29 gennaio 2021

Firma