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## **CURRICULUM VITAE (Updated June 14, 2018)**

- 1993 - Master Degree in Earth Sciences - University of Genova, Italy.

- 1997 - Ph.D. in Earth Sciences - Italy.

Other essentials:

- 1993-1996: PhD student in Earth Sciences - University of Genova, Italy.

- 1997-1999 Post-doctoral Research Fellow in Mineralogy.

- 1999: Permanent position as Researcher in Mineralogy, University of Genova, Italy.

- 1999: Associate Professore (permanent position) in Mining georesources and mineralogical petrographical applications for the environment and cultural heritage.

## **1. SCIENTIFIC ACTIVITY**

The research activity is focused on mineralogy, minerogenesis, applied and environmental mineralogy with particular reference to: a) physico-chemical properties of minerals and mineral genesis in ophiolites and oceanic crust; b) supergenic and hypogenic interactions between minerals and water/fluids; c) environmental impact and geoheritage values of abandoned mining sites; d) Acid Mine Drainage processes; e) asbestos and other fibrous minerals; f) relationships between mineralogical composition and ecotoxic metals in rocks, soils and sediments; g) minerals-biosphere interactions; h) minerals, vegetation and fungi: interactions in natural soils and contaminated sites; mineralogy and cultural heritage.

### **1.1 SCIENTIFIC PRODUCTION**

Pietro Marescotti produced 176 scientific publications: a) 47 research papers; b) 40 abstracts published in scientific journal; c) 15 papers published in scientific books; d) 20 papers in conference proceedings; e) 54 abstracts in conference proceedings.

### **1.2 BIBLIOMETRIC INDICATORS (updated June 2018)**

Source: SCOPUS

Citations: 420

H-Index: 12

Source: GOOGLE SCHOLAR

Citations: 615

H-Index: 14

Source: ISI Web of Knowledge.

Citations: 363

H-index: 11

### **1.3 INTERNATIONAL SCIENTIFIC EXPERIENCES**

- 1996 - Shipboard Scientist – ODP Leg 168 "Hydrothermal circulation in the oceanic crust: Eastern flank of the Juan de Fuca Ridge". San Francisco (USA)- Victoria (Canada), June 20, 1996-August 15, 1996.

- 2005 - Co-proposer and Scientific Member of the experiment CH-2095 performed at the ID-18f beamline at ESRF (European Synchrotron Radiation Facility, Grenoble, France). Experiment title: "Characterisation by means of  $\mu$ -diffraction and  $\mu$ -fluorescence analyses

of Fe-oxyhydroxides heterogeneous aggregates formed by supergenic alteration of natural Fe-Cu-sulfides."

- 2007 - Main proposer and Scientific Responsible of the experiment EC-156 performed at the ID-21 beamline at ESRF (European Synchrotron Radiation Facility, Grenoble, France). Experiment title: "Characterization, by means of  $\mu$ -XRF and  $\mu$ -XANES, of Fe-oxides and -oxyhydroxides formed by polymetallic sulphides alteration during AMD processes".
- 2018 - Main proposer and Scientific Responsible of the experiment 20175192 performed at MCX beamline (Elettra Synchrotron Radiation Facility, Basovizza, Trieste, Italy). Experiment title: "Potentially Toxic Elements (PTEs) in serpentine soils and bedrocks: mineralogical and crystal chemical investigations"

#### **1.4 COLLABORATIONS**

- Georgia State University (USA): Prof. D. Vanko.
- University of California, Santa Cruz - Earth Science Department (Santa Cruz, CA, USA): Prof. A. Fisher.
- Pacific Geoscience Centre, Geological Survey of Canada (Sidney, B.C., CANADA): Prof. E.A. Davis
- Saugar University (India): Prof. V.K. Nayak.
- University of Leeds (UK): Dr. Arlene Hunter.
- Department of Geology, Babeş-Bolyai University (Romania): Dr. F.L. Forray, Dr. Á. Gál.
- Department of Environmental Sciences, Sapientia University (Romania): Prof. A. Szakács.
- Nancy Université, CNRS (Vandoeuvre Lès Nancy, France): Dr. Jean Cauzid.
- EDYTEM Pôle montagne, Université de Savoie (France): Dr. Emilie Chalmin
- Università di Siena (IT): Prof. M.L. Frezzotti, Dr. G. Giorgetti.
- Università di Udine: Prof. P. Spadea.
- Università di Camerino: Prof. E. Paris; Prof. G. Giuli.
- Università di Firenze: Prof. C. Cipriani, Prof. M. Romanelli; Dr. C. Sangregorio; Dr. L. Sorace; Dr. F. Di Benedetto.
- CNR-IPCF Pisa: Dr. L.A. Pardi.
- Università di Milano: Dr. G. Grieco; Prof. Luisa De Capitani.
- Università di Perugia: Prof. P. Comodi; Prof. Francesco Frondini.
- Università di Cagliari: Prof. P. Lattanzi; Prof. L. Fanfani; Prof. F. Frau.

#### **1.5 ORGANIZATION OF SCIENTIFIC ACTIVITIES, SYMPOSIA, INVITED TALKS**

Pietro Marescotti has given invited talks at international and national conferences, seminars, doctorate schools and in Italian and foreign Universities.

- 2002 - Teacher of the University Master: "Asbestos and other pathogenic fibers: hazard evaluation in anthropogenic environments". PERFORM - University of Genova.
- 2003 - Teacher of the University Master: "Management of Natural Heritage for the fulfillment of Naturalistic-Environmental Legislation". PERFORM - University of Genova.
- 2003 - Invited Speaker at the PhD School in Earth Sciences (University of Perugia). Talk 1: "Interaction between biosphere and lithosphere: role of microorganisms in minerogenetic processes". Talk 2: "Role of microorganisms in alteration processes of volcanic glass. Mechanisms, textural evidences, methods of study.
- 2004 - Invited Speaker at the GNM's Summer School "Properties and applications of minerals at the nanoscale". Talk title: "Nanominerals and the environment: genesis, evolution and interactions in the ARD (Acid Rock Drainage) systems"
- 2008 - Organizing committee (Secretary) of the "1st SIMP-AIC International Joint Meeting" Learning from and for the Planet Earth: structures and models in Earth, materials and Life Sciences". Sestri Levante (Genova), September 7-12, 2008.

- 2008- Field Trip Leader "Conservation and reuse of mining heritage: the Val Graveglia manganese mines and the Val Fontanabuona slate quarries", 1° SIMP-AIC International Joint Meeting, September 7-12, 2008.
- 2009 – Invited Speaker at the PhD School of the Societatea Geologică a României, Filiala Cluj, Departamentul de Geologie și GEKKO, Universitatea Babeș-Bolyai, Cluj Napoca (Romania). Talk title: "Environmental impact of the AMD (Acid Mine Drainage) processes: examples from the abandoned Fe-Cu mine of Libiola (northern Italy)"
- 2009 - Convener of the workshop "Analytical methods for the study of inorganic contaminants in minerals from active and abandoned mine areas. Workshop W7, GEOITALIA Conference 2009, Rimini, September 7-11, 2009.
- 2010 - Convener of the Session "S2.2 - Water and soil resources: natural systems and anthropic impact" - 89° Congresso SIMP, Ferrara, September 13-15, 2010.
- 2011 - Invited Speaker at the GNM's and GABEC's International Summer School "Minerals and Biosphere", Campiglia Marittima, September 27-30, 2011. Talk Title: "Mineral-biosphere interactions in contaminated soils".
- 2011 - Teacher of the school (32h) for Public Employees (Municipality of Genova) "Excavation of rocks and soils: technical-, environmental-, and legal-aspects.
- 2012 - Invited Speaker at the PhD School in Earth sciences and geotechnologies (University of Perugia): "Mineral-biosphere interactions in contaminated mining soils".
- 2016 - Invited Speaker at the PhD School in Earth sciences and geotechnologies (University of Perugia): Ecotoxic metals in soils - Determination of their origin and background levels using a mineralogical and geochemical approach.
- 2017 - Invited speaker at a series of 5 traveling conferences for the international project "Taiwan Start Ups Internationalisation Tour, 8-15 Novembre 2017 - Taiwan". 1) National Sun Yat-sen University Entrepreneurship Centre, Kaohsiung; 2) National Kaohsiung First University of Science & Technology, Kaohsiung, 3) Innosquare Taiwan Accelerator, Taichung; 4) Chaoyang University of Technology, Taichung; 5) Chung Yuan Christian University, Taipei. Talk title: From mineralogical, geochemical and geomorphological researches to entrepreneurship; the case of Geospectra srl, Spin-Off of University of Genova.
- 2018 - Convener of the Session "Geoparks and geosites: tools for knowledge and protection of geological heritage" SIMP-SGI Joint Congress 2018 "Geosciences for the environment, natural hazard and cultural heritage. Catania September 12-14, 2018.

### **1.5 EDITORIAL ACTIVITY AND REVIEWS**

- 2011 - Guest Editor of the Special Issue "Mineral-contaminant relationships: towards a multi-scale, multidisciplinary approach". Neues Jahrbuch Fur Mineralogie-Abhandlungen, vol. 188/1, p. 1-98, Stuttgart: Schweizerbart'sche Verlagsbuchhandlung, doi: 10.1127/0077-7757/2011/0188.
- Editor, from 2011 (Vol. 37/2011) to present, of the Plinius Magazine, Italian Supplement of the European Journal of Mineralogy. Società Italiana di Mineralogia e Petrologia, Pisa.
- 2018 - Guest Editor of the Special Issue "Chemical-Physical Properties of Minerals and Minerogenesis in Supergene Environment". Minerals (ISSN 2075-163X).
- Referee for funding agencies and for national and international magazines. Included in the reviewer's database REPRIS-MIUR and in reviewer's database of the European Commission (Public Health and Risk Assessment) as "External Expert on risk assessment".

### **1.6 PROFESSIONAL AFFILIATION**

Ocean Drilling Program (ODP); Integrated Ocean Drilling Program; Italian Mineralogical and Petrological Society (SIMP); GABeC (Georisorse, Ambiente, Beni Culturali - Earth

resources, environment, cultural heritage); National Group of Mineralogy (GNM); European Synchrotron Radiation Facility (ESRF); MAST (Interdepartmental Center for Research in Materials Technologies; University of Genova).

### **1.7 SCIENTIFIC ADVICE ACTIVITIES WITH PUBLIC INSTITUTIONS AND PRIVATE COMPANIES**

- 1996 - Participant of the project " Realization of the hydrogeological maps (1:25.000) of the Rio S.Pietro, Torrente Varenna and Torrente Polcevera valleys (Provincia di Genova)". Level of involvement: regional.
- 2002 - Scientific Responsible of the project "Mineralogical and petrographical studies on the beach nourishment materials used for the Baia delle Favole locality (Sestri Levante, Genova). Performed together with the " Nucleo Investigativo di Polizia Ambientale e Forestale di Genova". Level of involvement: regional.
- 2005 - Scientific Responsible of the project "Geolithological and minero-petrographical characterization of the "Bargonasco Serpentinite Quarry" for the evaluation of the potential asbestos risk . Project performed for the Comune di Casarza Ligure (Genova). Level of involvement: local.
- 2006 - Scientific Responsible of the project "Mineralogical and petrographical studies on the serpentinites of the Bargonasco Quarry. Qualitative and quantitative analyses of outcropping rocks and quarry sediments to verify the presence of asbestos minerals". Project performed for the Comune di Casarza Ligure (Genova). Level of involvement: local.
- 2007 - Scientific Responsible of the project "Development of the institutional competencies of ARPAL (Regional Agency for Environmental Protection - Liguria) for the mineralogical and petrographical analyses of asbestos-bearing rocks" Project performed for the Regional Agency for Environmental Protection - Liguria. Level of involvement: regional.
- 2007 - Scientific Responsible of the project "Studies on the abandoned "Chalcopyrite Libiola Mine" (Sestri Levante, Genova). Census of the structures and infrastructures of environmental concern within the mining area". Project performed for the Society "Sviluppo Italia Aree Produttive". Level of involvement: national.
- 2008 - Scientific partner of the project " Geological and hydrogeological studies for the construction of a physical barrier for the chromium- contaminated water and sediments of the biggest industrial production of hexavalent chromium in Europe (Stoppani Industry, Cogoleto, Genova)". Project performed for the Society "Sviluppo Italia Aree Produttive". Level of involvement: National.
- 2002-2012 - Several projects for the qualitative and quantitative asbestos determination on natural and artificial materials (rocks, sediments, concrete and other cementitious materials). Level of involvement: local.
- 2011-2013 – Scientific Responsible for the census and evaluation of the potential asbestos risk in the outcrops of the area "Urbe", "Sassello" e "Tiglieto". CRG Project (Regional Geological Map - Regione Liguria, Italy) at the scale 1:25000 (Quadrangle 212 Spigno Monferrato).

### **1.8 GRANTED PROJECTS**

- MIUR PRIN-COFIN (Italian Ministry for Education, University and Research): 1994, 1995, 1996, 1997, 1999, 2001, 2003, 2004, 2006, 2008, 2011.
- CNR (Italian National Research Council): 1996, 1997, 1998

### **1.9 RESULTS OBTAINED IN TECHNOLOGICAL TRANSFER IN TERMS OF PARTICIPATION IN THE CREATION OF NEW ENTERPRISES (SPIN OFF), DEVELOPMENT, EMPLOYMENT AND PATENT MARKETING**

Establishment of an Interdepartmental Spin Off named GeoSpectra s.r.l. (Proponents: Prof. Pietro Marescotti - Department of Earth, Environment and Life Sciences, DISTAV, University of Genova, Prof. Gerardo Brancucci - Department of Architecture and Design, DAD, University of Genova). GeoSpectra s.r.l., carries out studies and research of GIS cartography for the analysis and management of territorial variables to support specific census of the geological, compositional, physico-chemical and historical-cultural components of the territory, aimed at the analysis of environmental criticalities and decision support for territorial marketing.

The Spin Off was set up following the approval of the Technical Commission for Spin Off and Patents, and the Academic Senate of the University of Genova, on 19/11/2013.

## **2. TEACHING AND TRAINING ACTIVITY**

Pietro Marescotti carries out his own teaching activity as part of the Degree Programs in Geological Sciences, Sciences and Technologies for the Environment and Nature, and Methodologies for the Conservation and Restoration of Cultural Heritage of the University of Genova.

- From 1999-2000 to present he held the teachings of: Minerogenesis, Conservation and Valorisation of Geological Heritage, Minerals, Rocks and Fossils of Liguria, Materials of the Earth Crust, Processes of Genesis of Minerals, Minerogenesis in Petrogenetic Processes, Applied Mineralogy, Useful Minerals and their Use, Minerogenesis and Geodynamic Environments, Environmental Mineralogy, Methods of Investigation of Minerals and Rocks.

- 2015 - Teacher of the course "Introduction to mineralogy and geology" (2 CFU) for the Class A059 (Mathematics, Chemistry, Physics and Natural Sciences for Secondary School).

- 2015 - Teacher of the course "Elements of Geology" (3CFU) for the Class A060 (Natural Sciences, Chemistry and Geography, Microbiology for High Schools and Technical and Professional Institutes).

- From the 2018 Academic Year he will be the teacher of the Courses for the Master's Degree Programs in Geological Sciences and Methodologies for the Conservation and Restoration of Cultural Heritage: Methods of Investigation of Minerals and Rocks; Environmental Mineralogy; Principles of Mineralogy Applied to Cultural Heritage.

Pietro Marescotti has been supervisor of 43 Thesis for the Degree Courses in Geological Sciences, Natural Sciences and Environmental Sciences. He is a member of the Council of the Doctorate School in Sciences and Technologies for the Environment and Territory (STAT) of the University of Genova and supervised the following 5 PhD thesis: Dr. Cristina Carbone (XX cycle), Dr. Eva Azzali (XXIV cycle), Dr. Monica Solimano (XVII cycle), Dr. Grazia Cecchi (XVIII cycle), Dr. Silvia Fornasaro (XXXI Cycle, in progress).

## **3. PUBLICATIONS (since 2010)**

- 1) Marescotti P., Azzali E., Servida D., Carbone C., Grieco G., De Capitani L., Lucchetti G. (2010). Mineralogical and geochemical spatial analyses of a waste-rock dump at the Libiola Fe-Cu sulphide mine (Eastern Liguria, Italy). *Environmental Earth Sciences*, vol. 61, p. 187-199, ISSN: 1866-6280, doi: 10.1007/s12665-009-0335-7.
- 2) Roccotiello E., Zotti M., Mesiti S., Marescotti P., Carbone C., Cornara L., Mariotti M.G. (2010). Biodiversity in metal-polluted soils. *Fresenius Environmental Bulletin*, vol. 19 (10 B), p. 2420-2425, ISSN: 1018-4619.
- 3) Azzali E., Carbone C., Marescotti P., Lucchetti G. (2011). Relationships between soil colour and mineralogical composition: application for the study of waste-rock dumps in abandoned mines. *Neues Jahrbuch fur Mineralogie-Abhandlungen*, vol. 188 (1), p. 75-85, ISSN: 0077-7757, doi: 10.1127/0077-7757/2011/0195.

- 4) Frau F., Marescotti, P. (2011). Mineralogical and geochemical techniques to investigate the relationships between minerals and contaminants in supergenic environments: an update review. *Neues Jahrbuch fur Mineralogie-Abhandlungen*, vol. 188 (1), p. 1-9, ISSN: 0077-7757, doi: 10.1127/0077-7757/2011/0189.
- 5) Carbone C., Marescotti P., Lucchetti G., Cauzid J., Chalmin E. (2011). Application of synchrotron radiation-based techniques ( $\mu$ -XRD,  $\mu$ -XRF, and  $\mu$ -XANES) to study Fe-rich hardpans within waste-rock dump. *Neues Jahrbuch fur Mineralogie-Abhandlungen*, vol. 188 (1), p. 21-30, ISSN: 0077-7757, doi: 10.1127/0077-7757/2011/0191.
- 6) Marescotti P., Roccotiello E., Zotti M. (2011). Mineral-Biosphere interactions in contaminated soils. In: G. Saviano (Series Editor). *Lecture di Georisorse e Ambiente*, vol. 3, p. 66-70, ROMA:Università degli studi "La Sapienza", ISBN: 9788896082027
- 7) Marescotti, P., Carbone C., Comodi P., Frondini F., Lucchetti G. (2012). Mineralogical and chemical evolution of ochreous precipitates from the Libiola Fe–Cu-sulfide mine (Eastern Liguria, Italy). *Applied Geochemistry*, vol. 27, p. 577-589, ISSN: 0883-2927, doi: 10.1016/j.apgeochem.2011.12.024
- 8) Carbone C., Marescotti P., Lucchetti G., Martinelli A., Basso R., Cauzid J. (2012). Migration of selected elements of environmental concern from unaltered pyrite-rich mineralizations to Fe-rich alteration crusts. *Journal of Geochemical Exploration*, vol. 114, p. 109-117, ISSN: 0375-6742.
- 9) D. Servida, S. Comero, M. Dal Santo, L. de Capitani, G. Grieco, Marescotti P., Porro S., Forray F.L., Gál Á., Szakács A. (2013). Waste rock dump investigation at Roşia Montană gold mine (Romania): a geostatistical approach. *Environmental Earth Sciences*, vol. 70 (1), p. 13-31, ISSN: 1866-6280, doi: 10.1007/s12665-012-2100-6.
- 10) Carbone C., Dinelli E., Marescotti P., Gasparotto G., Lucchetti G. (2013). The role of AMD secondary minerals in controlling environmental pollution: indications from bulk leaching tests. *Journal of Geochemical Exploration*, vol. 132, p. 188-200, ISSN: 0375-6742.
- 11) Marescotti P., Roccotiello E., Zotti M., De Capitani L., Carbone C., Azzali E., Mariotti M., Lucchetti G. (2013). Influence of soil mineralogy and chemistry on fungi and plants in a waste-rock dump from the Libiola mine (eastern Liguria, Italy). *Periodico di Mineralogia*, vol. 82, 1, p. 141-162, ISSN: 0369-8963, doi: 10.2451/2013PM0009
- 12) Gaggero L., Crispini L., Isola E., Marescotti P. (2013). Asbestos in natural and anthropic ophiolitic environments: a case study of geohazards related to the Northern Apennine ophiolites (Eastern Liguria, Italy). *Ofioliti*, vol. 38, p. 29-40, ISSN: 0391-2612, doi: 10.4454/ofioliti.v.38i1.414.
- 13) Solimano M., Marin V., Salmona P., Brancucci G., Marescotti P. (2013). Supporto GIS per la valutazione dell'impatto ambientale di siti minerari abbandonati: le miniere a solfuri della Val Petronio (Liguria Orientale). In: M. Negretti V. Marin P. Salmona (Eds.), FOSS4G-it. *GEOMATICS WORKBOOKS*, vol. 11, p. 205-221, Como:Laboratorio di Geomatica Politecnico di Milano - Polo Territoriale di Como, ISSN: 1591-092X
- 14) De Capitani L., Grieco G., Porro S., Ferrari E., Roccotiello E., Marescotti P. (2014). Potentially toxic element contamination in waste rocks, soils and wild flora at the Roşia Montană mining area (Romania). *Periodico di Mineralogia*, vol. 83 (2), p. 223-239, ISSN: 2239-1002, doi: 10.2451/2013PM0013.
- 15) Azzali E., Marescotti P., Frau F., Dinelli E., Carbone C., Capitani G., Lucchetti G. (2014). Mineralogical and chemical variations of ochreous precipitates from acid sulphate waters (asw) at the Rosia Montana gold mine (Romania). *Environmental Earth Sciences*, p. 1-18, ISSN: 1866-6280, doi: 10.1007/s12665-014-3264-z.
- 16) Zotti M., Di Piazza S., Roccotiello E., Lucchetti G., Mariotti M.G., Marescotti P. (2014). Microfungi in highly copper-contaminated soils from an abandoned Fe–Cu sulphide mine: Growth responses, tolerance and bioaccumulation. *Chemosphere*, vol. 117, p.

471-476, ISSN: 0045-6535, doi: 10.1016/j.chemosphere.2014.08.057.

- 17) Marescotti P., Solimano M., Beccaris G., Scotti E., Crispini L., Poggi E., Brancucci M., Fornasaro S. (2014). La presenza naturale di metalli nei suoli: criticità operative e possibili soluzioni. *ECO*, vol. 29, p. 60-63, ISSN: 2283-5377
- 18) Marescotti P., Solimano M., Brancucci G., Brancucci M., Poggi E., Vegnuti R. (2014). Contaminazione da metalli in discariche minerarie mediante spettrometro xrf portatile (FP-EDXRF). *La Chimica e l'Industria*, vol. 4/14, p. 84-87, ISSN: 0009-4315.
- 19) Brancucci G., Marescotti P., Solimano M., Muzio C., Sasso G., Marin V., Salmona P. (2015). Progetto per la valorizzazione del paesaggio minerario ligure come risorsa per il recupero del territorio. *Il Progetto Sostenibile*, vol. 36-37, p. 52-59, ISSN: 1974-3327.
- 20) Marescotti P., Crispini L., Poggi E., Capponi G., Solimano M. (2015). The asbestos risk in meta-ophiolitic rocks: a protocol for preliminary field and laboratory investigations during geological mapping. In: G. Lollino A. Manconi F. Guzzetti M. Culshaw P. Bobrowsky F. Luino (Eds.) *Engineering geology for society and territory*. vol. 5 - Urban geology, sustainable planning and landscape exploitation, p. 623-626, Springer, ISBN: 978-3-319-09048-1, doi: 10.1007/978-3-319-09048-1\_121.
- 21) Roccotiello E., Marescotti P., Di Piazza S., Cecchi G., Mariotti M.G., Zotti M. (2015). Biodiversity in Metal-Contaminated Sites – Problem and Perspective – A Case Study. In: Lo Y.-H. Blanco J.A. Roy S. (Eds.) *Biodiversity in Ecosystems. Linking structure and function*. p. 563-582, InTech, ISBN: 978-953-51-2028-5, doi: 10.5772/59357.
- 22) Marescotti P., Crispini L., Capponi G., Fornasaro S., Beccaris G., Scotti E. (2016). La presenza naturale di amianto nelle rocce e nei suoli ofiolitici: il censimento dei siti a rischio amianto durante la realizzazione della cartografia geologica della Regione Liguria. *RECOVER*, vol. 37, p. 83-85, ISSN: 2421-2938.
- 23) Brancucci G., Brancucci M., Capponi L., Marescotti P., Spesso M. (2016). Pietre policrome nelle architetture di Genova durante il regime fascista: aspetti di documentazione e rilevamento. In: Giulia Pellegrini (Ed.) *Di-Segnare. Ambiente Paesaggio Città*. p. 325-334, Genova:GS Digital S.a.S., ISBN: 978-88-905324-3-6.
- 24) Brancucci G., Brancucci M., Marescotti P., Poggi E., Solimano M., Vegnuti R. (2016). Caratterizzazione dei terreni agricoli come strumento marketing e valorizzazione del terroir. In: Giulia Pellegrini (Ed.), *Di-Segnare. Ambiente Paesaggio Città*. p. 345-352, Genova:GS Digital s.a.s., ISBN: 978-88-905324-3-6
- 25) Brancucci G., Brancucci M., Marescotti P., Solimano M., Vagge I., Vegnuti R. (2017). The Geodiversity of the Ligurian DOC Vineyards and Its Relationships with the Terroir. *International Journal of Environmental Science and Development*, vol. 8 (9), p. 686-690, ISSN: 2010-0264, doi: 10.18178/ijesd.2017.8.9.1039.
- 26) Cecchi G., Marescotti P., Zotti M., Di Piazza S. (2017). Native fungi as metal remediators: Silver myco-accumulation from metal contaminated waste-rock dumps (Libiola Mine, Italy). *Journal of Environmental Science and Health. Part B, Pesticides, Food Contaminants, and Agricultural Wastes*, vol. 52 (3), p. 191-195, ISSN: 1532-4109, doi: 10.1080/03601234.2017.1261549.
- 27) Cecchi G., Ceci A., Marescotti P., Persiani A.M Di Piazza S., Ballirano P., Mariotti M.G. Zotti M. (2018). The geological roles played by microfungi in interaction with sulfide minerals from Libiola mine, Liguria, Italy. *Geomicrobiology Journal*, p. 1-6, ISSN: 0149-0451, doi: 10.1080/01490451.2018.1429507.
- 28) Cecchi G., Marescotti P., Di Piazza S., Lucchetti G., Mariotti M.G., Zotti M. (2018). Gypsum biomineralization in sulphide-rich hardpans by a native *Trichoderma harzianum* Rifai strain. *Geomicrobiology Journal*, vol. 35 (3), p. 209-214, ISSN: 0149-0451, doi: 10.1080/01490451.2017.1362077.
- 29) Marescotti P., Brancucci G., Sasso G., Solimano M., Marin V., Muzio C., Salmona P. (2018). Geoheritage values and environmental issues of derelict mines: examples from

the sulfide mines of Gromolo and Petronio Valleys (Eastern Liguria, Italy). MINERALS, vol. 8, p. 1-22, ISSN: 2075-163X, doi: 10.3390/min8060229.

- 30) Marescotti P., Brancucci M., Solimano M., Brancucci G. (2018). Il suolo dei vigneti (DOC) liguri. In: Gerardo Brancucci & Adriana Gherzi. (Eds), Geodiversità dei vigneti liguri. Le relazioni tra paesaggio, suolo, vitigni e vino. p. 63-90, Edifir-Edizioni Firenze, ISBN: 9788879708975.