



PERSONAL INFORMATION

Alessandro Cavallo



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Date of birth 11/04/1972 | Nationality Italian

WORK EXPERIENCE

From December 2008

Researcher

University of Milano-Bicocca (Italy)

Main research activities

- Research and characterization of Critical Raw Materials (CRM)
- Sustainable mining & circular economy
- Characterization of ore & industrial minerals
- Quarries and mines
- Recovery of tailings and mining wastes
- Dimension stones
- Naturally-occurring asbestos (NOA)
- Industrial hygiene
- Construction and building materials (lime, cement)

Teaching activity

- Teaching of the master's degree Course "Industrial and Environmental Mineralogy"
- Teaching of the bachelor's degree Course "Basics of Ore Geology"

2005 - 2008

Research fellow

University of Milano-Bicocca (Italy)

2001 - 2005

Geological technician

Applied geology and geophysics companies

EDUCATION AND TRAINING

2001 - 2004

PhD in Earth Sciences

University of Milano (Italy)

PhD thesis: "The Malenco serpentinite: ore deposits, petrographic, technical characteristics and environmental issues". February 1, 2005.

1996- 2001

Master Degree in Geological Sciences

University of Milano (Italy)

Mater Degree thesis: "*Beole & beole*: a technical, historical and commercial survey of *Beole* from Ossola valley".

PERSONAL SKILLS

Mother tongue(s) Italian and German.

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C2	C2	C1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills

Participant of research unit in the PRIN 2010-11 "Mineralogical and physico-chemical characteristics of mineral fibers, reactivity and impact on human health". Collaboration in several national and international research projects: (INTERREG PIC-IIIa Val d'Ossola - Italy/Canton Ticino - Switzerland; INAIL-Direzione Regionale Lombardia, INAIL-Direzione Generale; INTERREG IIIa (Val d'Ossola - Italy/Canton Ticino - Switzerland O. S.M.A.T.E.R. - *Osservatorio Subalpino Materiali Territorio Restauro*; Universidad Nacional de Salta - Facultad de Ciencias Naturales (Argentina); relations between tectonics and volcanism along the Calama-Olacapato-EI Toro tectonic line - Argentina; Fondazione Lombardia per l'Ambiente (FLA); Round Robin mining dumps Val d'Aosta; FIBERS: the UNIMORE research group on mineral fibres; CARIPO ANTICARB project; CARIPO A-FIRE project.

Scientific responsible for commissioned research contracts with the following companies: FILMS S.p.A.; Dolomite Franchi S.p.A.; CIMProgetti S.p.A.; Toto Costruzioni S.p.A.; M.P.s.u.r.l.; Ecoconsulting s.r.l.; Reale Mutua Assicurazioni S.p.A.; BASF Construction Chemicals Italia S.p.A.; Tecnologie d'Impresa s.r.l.; Marmi Mauri s.r.l.; Nuova Serpentino d'Italia S.p.A.; Consorzio Estrattori Pietre Ornamentali della Provincia di Sondrio; ZAFSA s.r.l.; Centro Servizi Lapideo del VCO; Serpentino e Graniti S.p.A.; Industrie Tessili Bresciane S.p.A.; Labor Solutions s.r.l.

Job-related skills

He has published more than 47 papers in national and international journals and has a Scopus h-index of 11 (@ 2021). In possession of the national scientific qualification (ASN) for associate professor of SSD 04/A1- GEO-09 scientific sector.

He actively collaborates with several research institutions including University of Torino, University of Modena and Reggio Emilia, Department of Geological Engineering, Hacettepe University, Ankara, Turkey, as well as scientific referee for commissioned research contracts with many private companies of the mining, quarrying, construction and environmental sector.

Scientific head of the SEM-EDS and XRD laboratory for the analysis of asbestos-containing materials, with accreditation from the Ministry of Health in accordance with Ministerial Decree 14/5/96 and the State-Regions agreement CSR 80 of 07/05/2015.

Other skills Blasting licence.

Driving licence B driving licence.

ADDITIONAL INFORMATION

Projects

- Participation to the study and research activities related to the three-year project (2003-2005) INTERREG PIC-IIIa (Val d'Ossola - Italy/Canton Ticino - Switzerland) entitled: "Valorization of sludges deriving from stone processing". Total project Italian part: € 125,409.00
- Collaboration between INAIL-Direzione Regionale Lombardia, INAIL-Direzione Generale and Università degli Studi di Milano-Bicocca "The impact of the natural environment on human health: the INAIL contribution to medical geology".
- Participation to the study and research activities related to the three-year project (2005-2007) INTERREG IIIa (Val d'Ossola - Italy/ Canton Ticino - Switzerland) entitled: O.S.M.A.T.E.R. (*Osservatorio Subalpino Materiali Territorio Restauro*). Total project Italian part: 425,000.00 €.
- Agreement between the University of Milan-Bicocca and the Universidad Nacional de Salta - Facultad de Ciencias Naturales.

- Facultad de Ciencias Naturales (Argentina), responsible of the Italian unit prof. Alessandro Tibaldi: relations between tectonics and volcanism along the Calama-Olacapato-El Toro tectonic line (Andes, NW Argentina).
- Collaboration with Prof. Umran Dogan (Earth Sciences Department, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia) and Prof. Meral Dogan (Department of Geological Engineering, Hacettepe University, Ankara, Turkey) in the research and characterization of fibrous zeolites, with particular regard to erionite (classified as a Category I Carcinogen by the World Health Organization) in Italy.
- Consulting activity for Fondazione Lombardia per l'Ambiente (FLA) "Technical-legal investigation for the support of the research and experimentation program on mineral and energy resources in Regione Lombardia".
- Project "Round Robin mining dumps Val d'Aosta", responsible Prof. Alessandro Gualtieri (University of Modena and Reggio Emilia). The project involves several Italian research institutions (e.g. University of Bologna, University of Milano-Bicocca, University of Turin, ARPA Regione Val d'Aosta).
- Collaboration with the team "FIBERS: the UNIMORE research group on mineral fibres". Scientific manager: Prof. A. F. Gualtieri (University of Modena and Reggio Emilia). XRD, SEM-EDS and WDS analysis of samples of asbestos and other mineral fibres. <https://fibers.unimore.it/>
- Participant in the CARIPO ANTICARB project "Quarry waste ANTIgorite CARBonation: a zero-emission platform for re-manufacturing with the benefit of CO2 sequestration", funding € 300,000.00 €.
- Participant in the project CARIPO A-FIRE "Asbestos Fast Inertization and REcycling", funding 240,000.00 €.

Publications

ARTICLES IN ISI JOURNALS

- 1) Grieco, G., Sinojmeri, A., Bussolesi, M., Cocomazzi, G., **Cavallo, A.** (2021). Environmental Impact Variability of Copper Tailing Dumps in Fushe Arrez (Northern Albania): The Role of Pyrite Separation during Flotation. *SUSTAINABILITY*, 13(17), 9643; DOI: 10.3390/su13179643.
- 2) Vola, G., Ardit, M., Sarandrea, L., Brignoli, G., Natali, C., **Cavallo, A.**, Bianchini, G., Cruciani, G. (2021). Investigation and prediction of sticking tendency, blocks formation and occasional melting of lime at HT (1300 °C) by the overburning test method. *CONSTRUCTION AND BUILDING MATERIALS*, 294, 123577, DOI: 10.1016/j.conbuildmat.2021.123577.
- 3) Eslami, A., Malvoisin, B., Brunet, F., Kananian, A., Bach, W., Grieco, G., **Cavallo, A.**, Gatta, G.D. (2021). Podiform magnetite ore(s) in the Sabzevar ophiolite (NE Iran): oceanic hydrothermal alteration of a chromite deposit. *CONTRIBUTIONS TO MINERALOGY AND PETROLOGY*, 176:43, DOI: 10.1007/s00410-021-01799-0.
- 4) Marian, N.M., Giorgetti, G., Magrini, C.a., Capitani, G.C., Galimberti, L., **Cavallo, A.**, Salvini, R., Vanneschi, C., Viti, C. (2021). From hazardous asbestos containing wastes (ACW) to new secondary raw material through a new sustainable inertization process: A multimethodological mineralogical study. *JOURNAL OF HAZARDOUS MATERIALS*, Volume 413, Article number 125419, DOI: 10.1016/j.jhazmat.2021.125419.
- 5) Eslami, A., Malvoisin, B., Grieco, G., Aradi, L.E., Marchesi, C., **Cavallo, A.**, Montanini, A., Borghini, G., Mathur, R., Ikehata, K., Davis, D.W., Li, C.-H., Szabó, C. (2021). Native copper formation associated with serpentization in the Cheshmeh-Bid ophiolite massif (Southern Iran). *LITHOS*, Volume 382-383, February 2021, Article number 105953, DOI: 10.1016/j.lithos.2020.105953.
- 6) Petriglieri, J.R. Bersani, D., Laporte-Magoni, C., Tribaudino, M., **Cavallo, A.**, Salvioli-Mariani, E., Turci, F. (2021). Portable raman spectrometer for in situ analysis of asbestos and fibrous minerals. *APPLIED SCIENCES*, Volume 11, Issue 1, 1 January 2021, Article number 287, 1-14. DOI: 10.3390/app11010287.
- 7) **Cavallo, A.**, Petriglieri, J. R. (2020). Naturally Occurring Asbestos in Valmalenco (central Alps, Northern Italy): from Quarries and Mines To Stream Sediments. *ENVIRONMENTAL & ENGINEERING GEOSCIENCE*, vol. XXVI, p. 47-52, ISSN: 1078-7275, DOI: 10.2113/EEG-2270.
- 8) Grieco, G., Bussolesi, M., Eslami, A., Gentile, A., **Cavallo, A.**, Lian, D., Yang, J., Ghaseminejad, F. (2020). Differential platinum group elements (PGE) re-mobilization at low

- fs₂ in Abdasht and Soghan mafic-ultramafic complexes (Southern Iran). *LITHOS*, vol. 366-367, 105523, ISSN: 0024-4937, DOI: 10.1016/j.lithos.2020.105523.
- 9) Bussolesi, M., Grieco, G., Eslami, A., **Cavallo, A.** (2020): Ophiolite Chromite Deposits As a New Source for the Production of Refractory Chromite Sands. *SUSTAINABILITY*, vol. 12, 7096, ISSN: 2071-1050, DOI: 10.3390/su12177096.
 - 10) Petriglieri, J. R., Laporte-Magoni, C., Salvioli-Mariani, E., Tomatis, M., Gazzano, E., Turci, F., **Cavallo, A.**, Fubini, B. (2020). Identification and Preliminary Toxicological Assessment of a Nonregulated Mineral Fiber: Fibrous Antigorite from New Caledonia. *ENVIRONMENTAL & ENGINEERING GEOSCIENCE*, vol. 26, p. 89-97, ISSN: 1078-7275, DOI: 10.2113/EEG-2274.
 - 11) Dino, G. A., **Cavallo, A.**, Rossetti, P., Garamvölgyi, E., Sándor, R., Coulon, F. (2020). Towards Sustainable Mining: Exploiting Raw Materials from Extractive Waste Facilities. *SUSTAINABILITY*, vol. 12, 2383, ISSN: 2071-1050, DOI: 10.3390/su12062383.
 - 12) **Cavallo, A.** (2020). Environmental asbestos contamination in an abandoned chrysotile mining site: the example of Val Malenco (central Alps, northern Italy). *EPISODES*, vol. 43, p. 851-858, ISSN: 0705-3797, DOI: 10.18814/epiugs/2020/0200s01.
 - 13) **Cavallo, A.**, Dino, G.A. (2019). The Bargiolina, a Striking Historical Stone from Monte Bracco (Piedmont, NW Italy) and a Possible Source of Industrial Minerals. *SUSTAINABILITY*, vol. 11, 4293, ISSN: 2071-1050, DOI: 10.3390/su11164293.
 - 14) **Cavallo, A.**, Dino, G.A., Primavori, P. (2019). Gneisses (Serizzo and Beola) of the Verbanocusio-Ossola district (Piedmont, Northern Italy): possible candidates for the designation as a Global Heritage Stone Province. In: *Global Heritage Stone: Worldwide Examples of Heritage Stones*, in the Geological Society, London, Special Publications series. SP486. SPECIAL PUBLICATION - GEOLOGICAL SOCIETY OF LONDON, LONDON:Geological Society of London, ISSN: 0305-8719, DOI: 10.1144/SP486-2018-8.
 - 15) Vola, G., Sarandrea, L., Della Porta, G., **Cavallo, A.**, Jadoul, F., Cruciani, G. (2018). The influence of petrography, mineralogy and chemistry on burnability and reactivity of quicklime produced in Twin Shaft Regenerative (TSR) kilns from Neoproterozoic limestone (Transvaal Supergroup, South Africa). *MINERALOGY AND PETROLOGY*, vol. 112, p. 555-576, ISSN: 0930-0708, DOI: 10.1007/s00710-017-0542-y.
 - 16) **Cavallo, A.** (2018). Serpentinic waste materials from the dimension stone industry: Characterization, possible reuses and critical issues. *RESOURCES POLICY*, vol. 59, p. 17-23, ISSN: 0301-4207, DOI: 10.1016/j.resourpol.2018.08.003.
 - 17) Coletti, G., El Kateb, A., Basso, D. M., **Cavallo, A.**, Spezzaferri, S. (2017). Nutrient influence on fossil carbonate factories: Evidence from SEDEX extractions on Burdigalian limestone (Miocene, NW Italy and S France). *PALAEOGEOGRAPHY PALAEOCLIMATOLOGY PALAEOECOLOGY*, vol. 475, p. 80-92, ISSN: 0031-0182, DOI: 10.1016/j.palaeo.2017.03.005.
 - 18) Fantone, I., Grieco, G., Sinojmeri, A., **Cavallo, A.** (2017). A quantitative approach to the influence of pyrite separation on Cu-processing tailings: a case study at Repts, Mirdita district, Albania. *ENVIRONMENTAL EARTH SCIENCES*, vol. 76, p. 1-13, ISSN: 1866-6280, DOI: 10.1007/s12665-017-7078-7.
 - 19) Pollastri, S., Perchiazzi N., Gigli, L., Ferretti, P., **Cavallo, A.**, Bursi Gandolfi, N., Pollok, K., Gualtieri, A.F. (2017). The crystal structure of mineral fibres. 2. Amosite and fibrous anthophyllite. *PERIODICO DI MINERALOGIA*, vol. 86, p. 55-65, ISSN: 2239-1002, DOI: 10.2451/2017PM693.
 - 20) Belluso, E., **Cavallo, A.**, Halterman, D. (2017). Crystal habit of mineral fibres. In: Gualtieri A.F., *Mineral fibres: crystal chemistry, chemical-physical properties, biological interaction and toxicity*. vol. 18, p. 65-109, European Mineralogical Union, ISBN: 978-0903056-65-6, DOI: 10.1180/EMU-notes.18.3.
 - 21) Di Capua, A., Vezzoli, G., **Cavallo, A.**, Groppelli, G. (2016). Clastic sedimentation in the Late Oligocene Southalpine Foredeep: From tectonically controlled melting to tectonically driven erosion. *GEOLOGICAL JOURNAL*, vol. 51, p.338-353, ISSN: 0072-1050, DOI: 10.1002/gj.2632.
 - 22) Pollastri, S., Perchiazzi, N., Lezzerini, M., Plaisier, J.R., **Cavallo, A.**, Dalconi, M.C., Bursi Gandolfi, N., Gualtieri, A.F. (2016). The crystal structure of mineral fibres. 1. Chrysotile. *PERIODICO DI MINERALOGIA*, vol. 85, p. 249-259, ISSN: 2239-1002, DOI: 10.2451/2016PM655.
 - 23) Zanchi, A., Malaspina, N., Zanchetta, S., Berra, F., Benciolini, L., Bergomi, M., **Cavallo, A.**, Reza Javadi, H., Kouhpeyma, M. (2015). The Cimmerian accretionary wedge of Anarak, Central Iran. *JOURNAL OF ASIAN EARTH SCIENCES*, vol. 102, p. 45-72, ISSN: 1367-9120, DOI: 10.1016/j.jseaes.2014.08.030.
 - 24) Pasquarè M. F., Bonali, F. L., Tibaldi, A., Rust, D., Oppizzi, P., **Cavallo, A.** (2015). Holocene displacement field at an emerged oceanic transform-ridge junction: The Husavik-Flatey Fault - Gudfinnugja Fault system, North Iceland. *JOURNAL OF STRUCTURAL GEOLOGY*, vol. 75, p. 118-134, ISSN: 0191-8141, DOI: 10.1016/j.jsg.2015.03.011.

- 25) Dino, G.A., **Cavallo, A.** (2015). Ornamental stones of the Verbano Cusio Ossola quarry district: Characterization of materials, quarrying techniques and history and relevance to local and national and international Recognition of Building and Ornamental Stones. SPECIAL PUBLICATION - GEOLOGICAL SOCIETY OF LONDON, vol. 407, p. 187-200, Geological Society of London, ISSN: 0305-8719, DOI: 10.1144/SP407.15.
- 26) **Cavallo, A.**, Dino, G.A. (2015). Granites of the Verbano-Cusio-Ossola district (Piedmont, northern Italy): Possible candidates for the designation of “global heritage stone province” – Volume 5 Urban Geology, Sustainable Planning and Landscape Exploitation. vol. 5, p. 267-271, Springer International Publishing, ISBN: 9783319090474, DOI: 10.1007/978-3-319-09048-1.
- 27) Pollastri, S., Gualtieri, A.F., Lassinanti Gualtieri, M., Hanuskova, M., **Cavallo, A.**, Gaudino, G. (2014). The zeta potential of mineral fibres. JOURNAL OF HAZARDOUS MATERIALS, vol. 276, p. 469-479, ISSN: 0304-3894, DOI: 10.1016/j.jhazmat.2014.05.060.
- 28) Gualtieri, A.F., Pollastri, S., Bursi Gangolfi, N., Ronchetti, F., Albonico, C., **Cavallo, A.**, Zanetti, G., Marini, P., Sala, O. (2014). Determination of the concentration of asbestos minerals in highly contaminated mine tailings: An example from abandoned mine waste of Crètaz and Èmarese (Valle d'Aosta, Italy). AMERICAN MINERALOGIST, vol. 99, p. 1233-1247, ISSN: 0003-004X, DOI: 10.2138/am.2014.4708.
- 29) Fantone, I., Grieco, G., Strini, A., **Cavallo, A.** (2014). The effect of Alpine metamorphism on an oceanic Cu-Fe sulfide ore: the Herin deposit, Western Alps, Italy. PERIODICO DI MINERALOGIA, vol. 83, p. 345-365, ISSN: 2239-1002, DOI: 10.2451/2014PM0019
- 30) **Cavallo, A.**, Rimoldi, B. (2013). Chrysotile asbestos in serpentinite quarries: a case study in Valmalenco, Central Alps, Northern Italy. JOURNAL OF ENVIRONMENTAL MONITORING, vol. 15, p. 1341-1350, ISSN: 1464-0325, DOI: 10.1039/c3em00193h.
- 31) Tibaldi, A., Bonali, F. L., Pasquaré, F.A., Rust, D., **Cavallo, A.**, D'Urso, A. (2013). Structure of regional dykes and local cone sheets in the Midhyma-Lysuskard area, Snaefellsnes Peninsula (NW Iceland). BULLETIN OF VOLCANOLOGY, vol. 75, p. 1-16, ISSN: 0258-8900, DOI: 10.1007/s00445-013-0764-8.
- 32) Colombo A., Fiora L., Fomaro M., Lovera E., Sandrone R., Tunesi A., **Cavallo A.** (2004) - Contemporary natural stones from the Italian western Alps (Piedmont and Aosta Valley regions). Per. Mineral., 73, 211-226, SPECIAL ISSUE 3: a showcase of the Italian research in applied petrology.
- 33) **Cavallo, A.**, Bigioggero B., Colombo A., Tunesi A. (2004) – The Verbano Cusio Ossola province: a land of quarries in northern Italy (Piedmont). Per. Mineral., 73, 197-210, SPECIAL ISSUE 3: a showcase of the Italian research in applied petrology.
- 34) **Cavallo, A.**, Bigioggero B., Colombo A., Tunesi A. (2004) – The Beola: a dimension stone from the Ossola Valley (NW Italy). Per. Mineral., 73, 85-97, SPECIAL ISSUE 3: a showcase of the Italian research in applied petrology.

ARTICLES IN NON-ISI JOURNALS (WITH REFEREE)

- 35) Notarpietro, A., Pozzo, B., Rodeghiero, F., **Cavallo, A.**, Fanetti, S., Quistini, S. (2012) – Indagine tecnico-giuridica per il supporto del programma di ricerca e sperimentazione in materia di risorse minerarie ed energetiche in Regione Lombardia. Fondazione Lombardia per l'Ambiente, 401 pp.
- 36) Rodeghiero F. & **Cavallo, A.** (2011) – Idee guida per una valorizzazione del patrimonio minerario del Metallifero Triassico in Lombardia. In: Atzeni, P. et al. (Eds): Recupero e valorizzazione delle miniere dimesse: lo stato dell'arte in Italia. ISPRA, Quaderni - Ambiente e società n. 3/2011, 65-77, ISBN 978-88-448-0478-7.
- 37) Rimoldi, B., Pasquaré, G., Tibaldi, A., **Cavallo, A.**, Mattioli, M. & Renzulli, A. (2009) – Erionite: analisi preliminare alla valutazione di una potenziale esposizione per i lavoratori italiani. Rivista degli infortuni e delle malattie professionali INAIL, 1/2009, 143-154, ISSN 0035-5836.
- 38) **Cavallo, A.**, Dino G.A. (2009) – Le beole ossolane, un esempio di integrazione tra patrimonio lapideo, storia e paesaggio. Architettura del Paesaggio - Paysage, allegato al n°. 20, 2009, 15 pp, ISSN 1125-0259.
- 39) Dino, G.A., **Cavallo, A.** (2009) – Il Bianco Montorfano: potenzialità ed applicazioni nel costruito ossolano. Architettura del Paesaggio - Paysage, allegato al n°. 20, 2009, 14 pp, ISSN 1125-0259.
- 40) Bigioggero, B., Colombo, A., **Cavallo, A.**, Aldighieri, B. & Tunesi, A. (2007) – Geological-structural sketch-map of the Ossola-Simplon area (1: 50.000 map). 1906-2006 – 100 anni Traforo del Sempione. Litografia Artistica Cartografica, Firenze.
- 41) Colombo, A., **Cavallo, A.** (2007) – Geological-structural sketch-map of the Ossola-Simplon area - Explanatory Notes. 1906-2006 – 100 anni Traforo del Sempione. Litografia Artistica Cartografica, Firenze, 31 pp.
- 42) **Cavallo, A.**, Colombo, A., Tunesi, A. (2006) - The “green stones” from Ossola valley

- (Piedmont, Northern Italy): historical use, petrography, geochemistry and physical properties. In: Cardu M., Ciccu R., Lovera E., Michelotti E. (Eds): Mine Planning and Equipment Selection 2006, 1, 625-630, ISBN 88-901342-4-0.
- 43) **Cavallo, A.** (2006) - The Malenco serpentinite (Sondrio, northern Italy): petrography, geochemistry and mechanical properties. In: Cardu M., Ciccu R., Lovera E., Michelotti E. (Eds): Mine Planning and Equipment Selection 2006, 1, 619-624, ISBN 88-901342-4-0.
- 44) **Cavallo, A.**, Colombo A., Tunesi A. (2006) - Il Marmo di Ornavasso (VB, Piemonte): cave, usi storici, caratteristiche petrografiche e tecniche. In Badino V. e Baldassarre G. (Eds): Le risorse lapidee dall'antichità ad oggi in area Mediterranea. GEAM, vol. spec., 173-178, ISBN 88-901342-6-7.
- 45) **Cavallo, A.**, Colombo, A., Tunesi A. (2006) - Pietre Verdi della Val d'Ossola e Valmalenco a confronto (Alpi centro-occidentali). In Badino V. e Baldassarre G. (Eds): Le risorse lapidee dall'antichità ad oggi in area Mediterranea. GEAM, vol. spec., 161-166, ISBN 88-901342-6-7.
- 46) **Cavallo, A.**, Colombo, A., Tunesi, A. (2006) - Le beole di Vogogna (VB, Piemonte): cave, usi storici, caratteristiche petrografiche e tecniche. In Badino V. e Baldassarre G. (Eds): Le risorse lapidee dall'antichità ad oggi in area Mediterranea. GEAM, vol. spec., 167-172, ISBN 88-901342-6-7.
- 47) **Cavallo, A.**, Rimoldi, B. (2005) – L'estrazione della serpentinite della Val Malenco: la problematica dell'esposizione dei lavoratori a fibre di amianto di origine naturale (NOA) – risultati delle indagini preliminari. Professione Geologo, 25, 15-20.
- 48) **Cavallo, A.** (2004) – Il comprensorio estrattivo del Serpentino in Valmalenco. In AA.VV. (Eds): I tesori della Valmalenco. La geologia e le risorse minerarie della Valmalenco, 1, 31-40.

CONFERENCE PROCEEDINGS (WITH REFEREE)

- 1) **RawMat2021 (International Conference on Raw Materials and Circular Economy, 05-09 September 2021, Athens - Greece).**
- I. **Cavallo, A.**, Bussolesi, M., Grieco, G. Serpentinites: from dimension stones to valuable industrial minerals.
 - II. Bussolesi, M., Grieco, G., Tzamos, E., **Cavallo, A.**, Marescotti, P., Crispini, L., Kasinos, A., Zouboulis, A. Mineralogical and isotopic study of magnesite veins in the Evia and Gerakini ultramafites (Greece).
 - III. Cocomazzi, G., Grieco, G., Sinojmeri, A., Cavallo, A., Bussolesi, M. Implementation of a procedure for buffering acid mine drainage waters from pyrite-rich tailings at Fushë Arrëz copper enrichment flotation plant.
- 2) **European Geosciences Union General Assembly (EGU 2021, 19-30 April 2021, Vienna - Austria).**
- I. Grieco, G., Moroni, M., Bussolesi, M., **Cavallo, A.**, Orizio S. Spatial distribution of the ophiolite-hosted Co-Ni-As-rich hydrothermal mineralization in the Punta Coma Mining complex, Lanzo Valleys, Northern Italy, session ERE5.3, abstract EGU21-7589, vPICO presentation.
 - II. Marian, N.M., Giorgetti, G., Magrini, C., Capitani, G., Galimberti, L., **Cavallo, A.**, Salvini, R., Vanneschi, C., Viti, C. From hazardous asbestos containing wastes (ACW) to new secondary raw material through a new sustainable inertization process: a multimethodological mineralogical study, session ERE5.3, abstract EGU21-10825, vPICO presentation.
 - III. **Cavallo, A.**, Dino, G.A. The Crevoladossola marble (Piedmont, northern Italy): nine commercial varieties in just one quarry! session ERE5.1, abstract EGU21-12534, vPICO presentation.
 - IV. Dino, G.A., **Cavallo, A.**, Chiappino, C. Raw materials (CRM/SRM) supply from waste recycling and landfill mining: interdisciplinary approach to exploit resources from extractive waste facilities, session ERE5.3, abstract EGU21-12675, vPICO presentation.
- 3) **European Geosciences Union General Assembly (EGU 2020, 4-8 May 2020, Vienna - Austria).**
- I. **Cavallo, A.** Aggregates and naturally occurring asbestos: the need of a correct analytical approach.
 - II. Rodeghiero, F., **Cavallo, A.**, Dino, G.A. Kaolin and quartz from extractive waste: the example of the Monte Bracco area (Piedmont, northern Italy).
 - III. Dino, G.A., **Cavallo, A.**, Garamvölgy, E.; Sandor, R., Coulon, F. Towards sustainable mining: exploiting raw materials from extractive waste facilities.

- 4) **European Geosciences Union General Assembly (EGU 2019, 7 – 12 April 2019, Vienna - Austria).**
 - I. **Cavallo, A.** Environmental asbestos contamination in an abandoned chrysotile mining site.
 - II. **Cavallo, A.,** Dino, G.A. The “Bargiolina”, an amazing historical stone from Monte Bracco (Piedmont, NW Italy).
- 5) **XIII IAEG CONGRESS - AEG 61st Annual Meeting- Engineering Geology for a Sustainable World (IAEG 2018, 17 – 21 September 2018, San Francisco, California, USA).**
 - I. **Cavallo, A.,** Petriglieri, J. R. Naturally Occurring Asbestos in Valmalenco (Central Alps, Northern Italy): from Quarries and Mines to Stream Sediments.
 - II. Petriglieri, J. R., Laporte-Magoni, C., Salvioli-Mariani, E., Sala, O., Gunkel-Grillon, P., Tribaudino, M., Bersani, D., **Cavallo, A.** Environmental Risk of Fibrous Minerals in New Caledonia: A Monitoring Strategy.
 - III. Petriglieri, J. R., Laporte-Magoni, C., Salvioli-Mariani, E., Tomatis, M., Gazzano, E., Gunkel-Grillon, P., Turci, F., **Cavallo, A.,** Fubini, B. Not-Regulated Mineral Fibers – From the Identification to the Toxicity of Fibrous Antigorite from New Caledonia.
- 6) **European Geosciences Union General Assembly (EGU 2018, 8 – 13 April 2018, Vienna - Austria).**
 - I. **Cavallo, A.,** Cazzamali, D. & Guerra, S. New approaches in dimension stone exploration: an example from the “Dorato Valmalenco” quarry (central Alps, northern Italy).
 - II. **Cavallo, A.** Naturally occurring asbestos in soils and stream sediments: an example from Valmalenco (central Alps, northern Italy).
- 7) **Geosciences: a tool in a changing world - congresso congiunto AIV, SGI, SIMP e SoGel (4 – 6 September 2017, Pisa).**
 - I. **Cavallo, A.** Naturally occurring asbestos in serpentinite quarries: the Valmalenco case history. **KEYNOTE.**
- 8) **European Geosciences Union General Assembly (EGU 2017, 23 – 28 April 2017, Vienna - Austria).**
 - I. **Cavallo, A.** Serpentinitic waste materials: possible reuses and critical issues.
 - II. **Cavallo, A.** Soapstones from the Ossola Valley (Piedmont, northern Italy).
- 9) **European Geosciences Union General Assembly (EGU 2016, 17 – 22 April 2016, Vienna - Austria).**
 - I. Dino, G.A., Borghi, A., **Cavallo, A.,** Primavari, P. Gneisses (Serizzi and Beole) of the Verbano-Cusio-Ossola district (Piedmont, Northern Italy): possible candidates for the designation of “Global Heritage Stone province”.
 - II. **Cavallo, A.** Asbestos quantification in track ballast, a complex analytical problem.
- 10) Congresso **“La pietra ollare nelle Alpi. Coltivazione ed utilizzo nelle zone di provenienza” (8 – 9 October 2016, Varallo Sesia - Italy).**
 - I. **Cavallo, A.,** Guerra, S. La pietra ollare in Valmalenco. Caratteristiche geologiche e minerarie.
- 11) **European Geosciences Union General Assembly (EGU 2015, 12 – 17 April 2015, Vienna - Austria).**
 - I. **Cavallo, A.** Gneiss wastes as secondary raw material for the ceramic industry: an example from the Verbano Cusio Ossola district (Piedmont, north-western Alps, Italy).
 - II. **Cavallo, A.** (2015). The “green stones” of Valtellina and Valchiavenna (central Alps, northern Italy).
- 12) **IAEG 2014 Engineering Geology for Society and Territory - IAEG 50th Anniversary (15 – 18 September 2014, Torino - Italy).**
 - I. **Cavallo, A.,** Dino, G.A. Granites of the Verbano-Cusio-Ossola District (Piedmont, Northern Italy): Possible Candidates for the Designation of “Global Heritage Stone Province” and a Proposal of a Geotouristic Route.
- 13) **European Geosciences Union General Assembly (EGU 2013, 7 – 12 April 2013, Vienna - Austria).**
 - I. **Cavallo, A.** Chrysotile asbestos quantification in serpentinite quarries: a case study in Valmalenco, central Alps, northern Italy.

- II. **Cavallo, A.**, Dino, G.A. The OSMATER project: promotion of stone materials from the Verbano-Cusio-Ossola region (Italy) and the Canton Ticino (Switzerland).
- 14) **European Geosciences Union General Assembly (EGU 2012, 22 – 27 April 2012, Vienna - Austria).**
 - I. **Cavallo, A.**, Rimoldi, B. Asbestos exposure during quarrying and processing of serpentinites: a case study in Valmalenco, Central Alps, Northern Italy.
 - II. **Cavallo, A.**, Rimoldi, B. Erionite and other fibrous zeolites in volcanic environments: the need for a risk assessment in Italy.
 - III. Bonali, F.L., Tibaldi, A., Corazzato, C., Lanza, F., **Cavallo, A.**, Nardin, A. Elastic stress interaction between faulting and volcanism in the Olacapato–San Antonio de Los Cobres area (NW Argentina).
 - 15) **GEOMED 2011 International Conference on Medical Geology (20 – 25 September 2011, Bari - Italy).**
 - I. **Cavallo, A.**, Rimoldi, B., Dogan, M. & Dogan, A. U. Geology and health: the highly carcinogenic erionite mineral and the need for a risk assessment in Italy.
 - II. Rimoldi, B., **Cavallo, A.**, Guercio, A., Barbassa, E., Marena, G., Pisanelli, F., Santucci, P., Tripi, L., Massera, S. Naturally occurring asbestos in serpentinite quarries: a case study in Valmalenco, Central Alps, Northern Italy.
 - 16) **Solid Earth - Basic Science for the Human Habitat", ILP's Second Potsdam Conference 2010 (21 – 23 September 2010, Potsdam - Germany).**
 - I. **Cavallo, A.**, Mattioli, M., Renzulli, A., Rimoldi, B., Tibaldi, A. First investigations about erionite and offretite in Italian volcanic environments.
 - II. **Cavallo, A.**, Nardin, A., Tibaldi, A., Corazzato, C., Lanza, F., Bonali, F.L. Relationship between structures, petrochemical features and hydrothermal alteration along the Plio-Quaternary Olacapato-San Antonio fault zone (NW Argentina).
 - III. Bonali, F.L., Tibaldi, A., **Cavallo, A.**, Corazzato, C., Lanza, F., Nardin, A. Elastic stress interaction between faulting and volcanoes along the Calama-Olacapato-El Toro fault zone, Central Andes.
 - IV. Corazzato, C., Tibaldi, A., **Cavallo, A.**, Bonali, F.L., Lanza, F., Nardin, A. Plio-Quaternary kinematics and geometry of the Calama-Olacapato-El Toro fault zone across the Puna Plateau, Argentina.
 - 17) **ILP Joint Task Force Meeting 2009 (5 – 9 October 2009, Clermont Ferrand - France).**
 - II. **Cavallo, A.**, Mattioli, M., Pasquarè, G., Renzulli, A., Rimoldi, B., Tibaldi, A. Geology and Health: methodological study and volcanic origin of the highly cancerogenic erionite mineral. **KEYNOTE.**
 - 18) **GEOITALIA 2009 (9 – 11 September 2009, Rimini - Italy).**
 - I. Rimoldi, B., **Cavallo, A.**, Massera, S., Sala, O., Pelosio, A., Boggio, P. Measuring naturally occurring airborne asbestos: the Lombardia and Emilia-Romagna experiences in the field and in the laboratory.
 - II. **Cavallo, A.**, Rimoldi, B., Massera, S., Guercio, A., Barbassa, E., Pisanelli, F., Marena, G., Santucci, P., Tripi, L. Evaluation of worker's exposure to naturally occurring asbestos in quarrying and processing of the "Serpentino della Val Malenco", Central Alps, Italy.
 - III. **Cavallo, A.**, Galimberti, L. Historical "green stones" from Ossola Valley (Piedmont, northern Italy): relations between microstructures and porosity (Hg-porosimetry).
 - 19) **"Unicity, Uniformity and Universality in the Identification of the Landscape and Cultural Mosaic" (18 – 19 September 2008, Aquileia - Italy).**
 - I. **Cavallo, A.**, Dino, G.A. Le beole ossolane, un esempio di integrazione tra patrimonio lapideo, storia e paesaggio.
 - II. Dino, G.A., & **Cavallo, A.** Il Bianco Montorfano: potenzialità ed applicazioni nel costruito ossolano.
 - 20) **GEOITALIA 2007 (12 – 14 September 2007, Rimini - Italy).**
 - I. **Cavallo, A.** Asbestos in ornamental greenstones? A combined analytical approach.
 - II. **Cavallo, A.**, Dino, G.A. Quarrying and mining heritage in the VCO district: development of geotouristical routes.
 - III. **Cavallo, A.**, Dino, G.A., Colombo, A., Fornaro, M., Marini, P., Tunesi, A.M. Proposal for a technical regulation of ornamental stones: an example from the Verbano-Cusio-Ossola district.

- 21) **MPES Mine Planning and Equipment Selection 2006** (19 – 22 September 2006, Torino - Italy).
 - I. **Cavallo, A.** The Malenco serpentinite (Sondrio, northern Italy): petrography, geochemistry and mechanical properties.
 - II. **Cavallo, A.,** Colombo, A., Tunesi, A. The “green stones” from Ossola valley (Piedmont, Northern Italy): historical use, petrography, geochemistry and physical properties.

- 22) **GEOITALIA 2005** (22 – 23 September 2005, Spoleto - Italy).
 - I. Colombo, A., Barberini, V., **Cavallo, A.,** Galimberti, L., & Tunesi, A. Residual sludge from the ornamental stone industry in the Verbano-Cusio-Ossola district (Piedmont, NW Italy): mineralogy and chemistry.
 - II. **Cavallo, A.** Serpentinic cutting sludges from Valmalenco (Sondrio, N Italy): chemistry, mineralogy and possible reuses.

- 23) **32nd International Geological Congress (XXXII IGC 2004)**, 20 – 28 August 2004, Firenze - Italy).
 - I. **Cavallo, A.** Quarrying and processing of serpentinite in Valmalenco (Sondrio, northern Italy): features and problems.
 - II. **Cavallo, A.,** Colombo, A., Tunesi A. Stone industry in the Ossola Valley (NW Italy): the Serizzo and Beola ornamental stones.

- 24) **“From asbestos to nanoparticles: past experience for future challenges and needs in particle toxicology”** (28 – 30 June 2004, Torino - Italy).
 - I. **Cavallo, A.,** Rimoldi, B., Ferrario, A. Asbestos risk in quarrying and processing of the “Serpentino della Val Malenco”, Central Alps: preliminary geological and environmental studies for risk assessment.