

Donatella Barca

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

1,913
citations

218381

26
h-index

288905

40
g-index

83
all docs

83
docs citations

83
times ranked

1814
citing authors

#	ARTICLE	IF	CITATIONS
1	Characterisation of archaeological mortars from Pompeii (Campania, Italy) and identification of construction phases by compositional data analysis. <i>Journal of Archaeological Science</i> , 2010, 37, 2207-2223.	1.2	138
2	PROVENANCE OF THE LIMESTONE USED IN TEOTIHUACAN (MEXICO): A METHODOLOGICAL APPROACH*. <i>Archaeometry</i> , 2009, 51, 525-545.	0.6	91
3	Application of LA-ICP-MS to sedimentary phosphatic particles from Tunisian phosphorite deposits: Insights from trace elements and REE into paleo-depositional environments. <i>Chemie Der Erde</i> , 2012, 72, 127-139.	0.8	79
4	Rare earths concentration from phosphogypsum waste by two-step leaching method. <i>International Journal of Mineral Processing</i> , 2016, 149, 78-83.	2.6	69
5	An analysis of the black crusts from the Seville Cathedral: A challenge to deepen the understanding of the relationships among microstructure, microchemical features and pollution sources. <i>Science of the Total Environment</i> , 2015, 502, 157-166.	3.9	66
6	Application of spectrometric analysis to the identification of pollution sources causing cultural heritage damage. <i>Environmental Science and Pollution Research</i> , 2013, 20, 8848-8859.	2.7	61
7	Trace elements in hazardous mineral fibres. <i>Environmental Pollution</i> , 2016, 216, 314-323.	3.7	59
8	Impact of air pollution in deterioration of carbonate building materials in Italian urban environments. <i>Applied Geochemistry</i> , 2014, 48, 122-131.	1.4	55
9	Application of Laser Ablation ICP-MS for characterization of obsidian fragments from peri-Tyrrhenian area. <i>Journal of Cultural Heritage</i> , 2007, 8, 141-150.	1.5	53
10	The Oceanus statue of the Fontana di Trevi (Rome): The analysis of black crust as a tool to investigate the urban air pollution and its impact on the stone degradation. <i>Science of the Total Environment</i> , 2017, 593-594, 297-309.	3.9	52
11	Investigation of rock-to-water release and fate of major, minor, and trace elements in the metabasaltic serpentinite shallow aquifer of Mt. Reventino (CZ, Italy) by reaction path modelling. <i>Applied Geochemistry</i> , 2011, 26, 1722-1740.	1.4	49
12	Damage monitoring on carbonate stones: Field exposure tests contributing to pollution impact evaluation in two Italian sites. <i>Construction and Building Materials</i> , 2017, 152, 907-922.	3.2	45
13	Geochemical study of black crusts as a diagnostic tool in cultural heritage. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 113, 1151-1162.	1.1	43
14	Arsenic polluted waters: Application of geochemical modelling as a tool to understand the release and fate of the pollutant in crystalline aquifers. <i>Journal of Environmental Management</i> , 2022, 301, 113796.	3.8	41
15	A multivariate non-parametric approach for estimating probability of exceeding the local natural background level of arsenic in the aquifers of Calabria region (Southern Italy). <i>Science of the Total Environment</i> , 2022, 806, 150345.	3.9	40
16	The impact of dolomite and plagioclase weathering on the chemistry of shallow groundwaters circulating in a granodiorite-dominated catchment of the Sila Massif (Calabria, Southern Italy). <i>Applied Geochemistry</i> , 2009, 24, 957-979.	1.4	37
17	Use of mean residence time of water, flowrate, and equilibrium temperature indicated by water geothermometers to rank geothermal resources. Application to the thermal water circuits of Northern Calabria. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 328, 147-158.	0.8	37
18	CHARACTERIZATION AND PROVENANCE OF LIME PLASTERS FROM THE TEMPLO MAYOR OF TENOCHTITLAN (MEXICO CITY). <i>Archaeometry</i> , 2011, 53, 1119-1141.	0.6	34

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19	Production of a rare earths concentrate after phosphogypsum treatment with dietary NaCl and Na ₂ CO ₃ solutions. <i>Minerals Engineering</i> , 2019, 132, 169-174.	1.8	34
20	A Multidisciplinary Approach for the Archaeometric Study of Pozzolan Aggregate in Roman Mortars: The Case of the Villa dei Quintili. <i>Archaeometry</i> , 2015, 57, 269-296.	0.6	33
21	Soil genesis, morphodynamic processes and chronological implications in two soil transects of SE Sardinia, Italy: Traditional pedological study coupled with laser ablation ICP-MS and radionuclide analyses. <i>Geoderma</i> , 2011, 162, 39-64.	2.3	32
22	A LA-ICP-MS study of minerals in the Rocche Rosse magmatic enclaves: Evidence of a mafic input triggering the latest silicic eruption of Lipari Island (Aeolian Arc, Italy). <i>Journal of Volcanology and Geothermal Research</i> , 2009, 182, 45-56.	0.8	31
23	Magmatic Evolution and plumbing system of ring-fault volcanism: the Vulcanello Peninsula (Aeolian) Tj ETQq1 1 0.784314 rgBT / Over	0.4	30
24	Application of laser ablation ICP-MS and traditional micromorphological techniques to the study of an Alfisol (Sardinia, Italy) in thin sections: Insights into trace element distribution. <i>Geoderma</i> , 2009, 152, 113-126.	2.3	30
25	A new methodological approach for the chemical characterization of black crusts on building stones: a case study from the Catania city centre (Sicily, Italy). <i>Journal of Analytical Atomic Spectrometry</i> , 2011, 26, 1000.	1.6	30
26	Crystal residence times from trace element zoning in plagioclase reveal changes in magma transfer dynamics at Mt. Etna during the last 400 years. <i>Lithos</i> , 2016, 248-251, 309-323.	0.6	29
27	Black crusts on Venetian built heritage, investigation on the impact of pollution sources on their composition. <i>European Physical Journal Plus</i> , 2018, 133, 1.	1.2	27
28	Comparative geochemical study between the tap waters and the bottled mineral waters in Calabria (Southern Italy) by compositional data analysis (CoDA) developments. <i>Applied Geochemistry</i> , 2019, 107, 19-33.	1.4	27
29	Application of laser ablation ICP-MS and traditional techniques to the study of black crusts on building stones: a new methodological approach. <i>Environmental Science and Pollution Research</i> , 2010, 17, 1433-1447.	2.7	26
30	Diagenetic albitization in the Tera Group, Cameros Basin (NE Spain) recorded by trace elements and spectral cathodoluminescence. <i>Chemical Geology</i> , 2012, 312-313, 148-162.	1.4	26
31	Provenance of glass shards in archaeological lime plasters by LA-ICP-MS: implications for the ancient routes from the Gulf of Mexico to Teotihuacan in Central Mexico. <i>Journal of Archaeological Science</i> , 2013, 40, 3999-4008.	1.2	26
32	Mitochondrial Carnitine/Acylcarnitine Transporter, a Novel Target of Mercury Toxicity. <i>Chemical Research in Toxicology</i> , 2015, 28, 1015-1022.	1.7	25
33	Vitreous tesserae from the calidarium mosaics of the Villa dei Quintili, Rome. Chemical composition and production technology. <i>Microchemical Journal</i> , 2016, 124, 726-735.	2.3	23
34	THE PROVENANCE OF OBSIDIAN ARTEFACTS FROM THE WÄÄÄ ATHÄÄTHAYYILAH 3 NEOLITHIC SITE (EASTERN) Tj ETQq0 0,0 rgBT / Ov	0,6	21
35	Plasters from Different Buildings of the Sacred Precinct of Tenochtitlan (Mexico City): Characterization And Provenance. <i>Archaeometry</i> , 2015, 57, 100-127.	0.6	21
36	Multi-analytical approach applied to the provenance study of marbles used as covering slabs in the archaeological submerged site of Baia (Naples, Italy): The case of the "Villa con ingresso a protiro". <i>Applied Surface Science</i> , 2015, 357, 1369-1379.	3.1	21

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37	Widespread syn-eruptive volcanoclastic deposits in the Pleistocenic basins of South-Western Calabria. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 155-169.	0.8	18
38	The environmental impact of air pollution on the built heritage of historic Cairo (Egypt). <i>Science of the Total Environment</i> , 2021, 764, 142905.	3.9	17
39	Limestone Provenance in Roman Lime- $\text{Volcanic Ash Mortars from the Villa dei Quintili, Rome. Georarchaeology - an International Journal}$, 2015, 30, 79-99.	0.7	16
40	Rare earth element signatures in the Messinian pre-evaporitic Calcare di Base formation (Northern Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.4	15
41	A trace element study for the provenance attribution of ceramic artefacts: the case of Dressel 1 amphorae from a late-Republican ship. <i>Journal of Archaeological Science</i> , 2014, 43, 91-104.	1.2	15
42	Mosaic marble tesserae from the underwater archaeological site of Baia (Naples, Italy): determination of the provenance. <i>European Journal of Mineralogy</i> , 2014, 26, 323-331.	0.4	15
43	Diagnostics, deterioration and provenance of stone materials from the Jefferson Page tomb (Non-Catholic Cemetery of Rome, Italy). <i>Environmental Earth Sciences</i> , 2010, 60, 829-836.	1.3	14
44	Lichens as bioindicators of atmospheric heavy metal deposition in Valencia, Spain. <i>Journal of Atmospheric Chemistry</i> , 2013, 70, 373-388.	1.4	14
45	Provenance study of building and statuary marbles from the Roman archaeological site of "Villa dei Quintili" (Rome, Italy). <i>Italian Journal of Geosciences</i> , 2016, 135, 236-249.	0.4	14
46	Provenance of obsidian artifacts from the Natural Protected Area Laguna del Diamante (Mendoza,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.7	14
47	On ash dispersal from moderately explosive volcanic eruptions: Examples from Holocene and Late Pleistocene eruptions of Italian volcanoes. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 385, 198-221.	0.8	14
48	Lower crustal differentiation processes beneath a back-arc spreading ridge (Marsili seamount,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302	0.6	13
49	Is trace element concentration correlated to parasite abundance? A case study in a population of the green frog <i>Pelophylax synkl. hispanicus</i> from the Neto River (Calabria, southern Italy). <i>Parasitology Research</i> , 2017, 116, 1745-1753.	0.6	13
50	Multidisciplinary Approach for Evaluating the Geochemical Degradation of Building Stone Related to Pollution Sources in the Historical Center of Naples (Italy). <i>Applied Sciences (Switzerland)</i> , 2020, 10, 4241.	1.3	12
51	Petrographic, biological, and chemical techniques used to characterize two tombs in the Protestant Cemetery of Rome (Italy). <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 865-872.	1.1	11
52	Analysis of marble statues from the San Bruno Church (Serra San Bruno, Southern Italy): provenance and degradation. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 106, 171-179.	1.1	11
53	Magma emplacement at anomalous spreading ridge: Constraints due to plagioclase crystals from basalts of Marsili seamount (Southern Tyrrhenian back-arc). <i>Journal of Volcanology and Geothermal Research</i> , 2012, 241-242, 61-77.	0.8	10
54	Le champ filonien $\text{Zn-(Pb, Cu, As, Hg)}$ du district minier de Fedj Hass $\text{\`{a}}$ ne (Nord Ouest de la Tunisie): Min $\text{\`{a}}$ ralogie, El $\text{\`{a}}$ ments en traces, Isotopes du Soufre et Inclusions Fluides. <i>Estudios Geologicos</i> , 2011, 67, 5.	0.7	10

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55	Cathode-Luminescence from Extrinsic Impurities in Bundles of Carbon Nanotubes: A Possible Role. <i>Journal of Nanoscience and Nanotechnology</i> , 2011, 11, 9196-9201.	0.9	9
56	Phosphorite-hosted zinc and lead mineralization in the Sekarna deposit (Central Tunisia). <i>Mineralium Deposita</i> , 2012, 47, 545-562.	1.7	9
57	High-performing mortar-based materials from the late imperial baths of Aquileia: An outstanding example of Roman building tradition in Northern Italy. <i>Geoarchaeology - an International Journal</i> , 2022, 37, 637-657.	0.7	9
58	Parasitic Load, Hematological Parameters, and Trace Elements Accumulation in the Lesser Spotted Dogfish <i>Scyliorhinus canicula</i> from the Central Tyrrhenian Sea. <i>Biology</i> , 2022, 11, 663.	1.3	9
59	Identifying a technological style in the making of lime plasters at Teopancazco (Teotihuacan, MEXICO). <i>Archaeological and Anthropological Sciences</i> , 2018, 10, 315-335.	0.7	8
60	The provenance of obsidian artefacts from the Middle Kingdom harbour of Mersa/Wadi Gawasis, Egypt, and its implications for Red Sea trade routes in the 2nd millennium BC. <i>Quaternary International</i> , 2020, 555, 85-95.	0.7	8
61	Manganese ores in Tunisia: Genetic constraints from trace element geochemistry and mineralogy. <i>Ore Geology Reviews</i> , 2020, 120, 103451.	1.1	8
62	Chemical, mineralogical and rare earth elements distribution study of phosphorites from Sra Ouertane deposit (Tunisia). <i>Journal of African Earth Sciences</i> , 2019, 157, 103505.	0.9	7
63	Chemical and Petrographic Characterization of Stone and Glass Tesserae in the Nereid and Geometric Mosaics from the S. Aloe Quarter in Vibo Valentia, Calabria, Italy. <i>Minerals (Basel, Switzerland)</i> , 2019, 9, 729.	0.8	6
64	Trace elements and isotopes analyses on historical samples of white sharks from the Mediterranean Sea. <i>Journal of Great Lakes Research</i> , 2021, 88, 132-141.		6
65	Antarctic Fish as a Global Pollution Sensor: Metals Biomonitoring in a Twelve-Year Period. <i>Frontiers in Molecular Biosciences</i> , 2021, 8, 794946.	1.6	6
66	Further developments of the Rayleigh equation for fractional crystallization. <i>Earth and Planetary Science Letters</i> , 1988, 89, 170-172.	1.8	5
67	Technological and geochemical study of two red-figured vases of unknown provenance by various analytical techniques. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 911-917.	1.1	4
68	Degradation Products on Byzantine Glasses from Northern Tunisia. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 7523.	1.3	4
69	Hydraulicity of lime plasters from Teotihuacan, Mexico: a microchemical and microphysical approach. <i>Journal of Archaeological Science</i> , 2021, 133, 105453.	1.2	4
70	A powerful tool for assessing distribution and fate of potentially toxic metals (PTMs) in soils: integration of laser ablation spectrometry (LA-ICP-MS) on thin sections with soil micromorphology and geochemistry. <i>Environmental Science and Pollution Research</i> , 2017, 24, 9776-9790.	2.7	3
71	The first archaeometric characterization of obsidian artifacts from the archaeological site of Samshilde (South Georgia, Caucasus). <i>Archaeological and Anthropological Sciences</i> , 2019, 11, 6725-6736.	0.7	3
72	Geochemical and petrographic characterization of pyroclastic deposits of Los Humeros Volcanic Complex used as aggregates in the plasters from Teotihuacan (Mexico). <i>Microchemical Journal</i> , 2019, 145, 852-863.	2.3	3

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73	Provenance of White Marbles from the Roman City of Tauriana (Palmi, Reggio Calabria, Italy). Minerals (Basel, Switzerland), 2020, 10, 297.	0.8	3
74	Chemical Characterization of Vitreous Finds from Cosenza Cathedral (Calabria - Italy) by the Combined Use of Analytical Techniques. Open Archaeology, 2020, 6, 63-85.	0.3	3
75	Vitreous Tesserae from the Four Seasons Mosaic of the S. Aloe Quarter in Vibo Valentia - Calabria, Italy: A Chemical Characterization. Minerals (Basel, Switzerland), 2020, 10, 658.	0.8	2
76	RecoStones: a New Tool to Identify Calabrian Stone Materials Through Image Processing. Geoheritage, 2021, 13, 1.	1.5	2
77	Archaeometric analysis of building ceramics and "dolia defossa"™ from the Roman imperial estate of Vagnari (Gravina in Puglia, Italy). Journal of Archaeological Science: Reports, 2021, 38, 103057.	0.2	2
78	Developments of the Rayleigh equation: a Pascal program for simulating fractional crystallization. Computers and Geosciences, 1993, 19, 1127-1153.	2.0	1
79	Trace elements accumulation could influence parasitic load and hematological parameters in a central mediterranean population of Lesser Spotted Dogfish Scyliorhinus canicula. , 2021, , .		1
80	Chemical Characterization of the Roman Glass Finds from Muricelle Archaeological Site (Luzzi), Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46	0.8	1
81	Archaeometric Study of the White Marbles from "Madonna Della Febbre" Altar in San Domenico Church (Cosenza, Southern Italy). Minerals (Basel, Switzerland), 2022, 12, 284.	0.8	0
82	Characterization of stone tesserae from "The Indian Triumph of Dionysus" Mosaic (Casignana, Reggio) Tj ETQq0 0 0 rgBT /Overlock 0,3	0.3	0