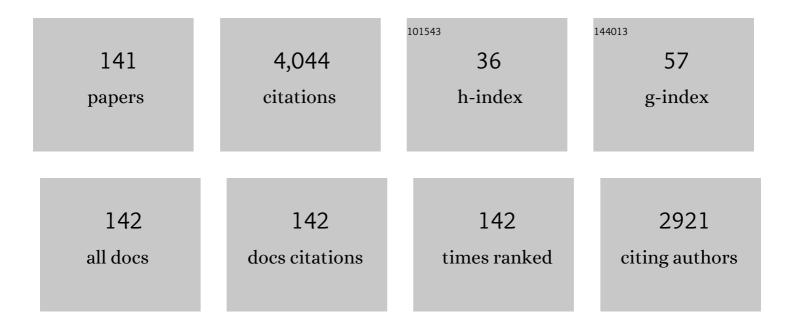
## **Rafael Fort**

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/2378838/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	Durability estimation of porous building stones from pore structure and strength. Engineering Geology, 2004, 74, 113-127.	6.3	229
2	Influence of relative humidity on the carbonation of calcium hydroxide nanoparticles and the formation of calcium carbonate polymorphs. Powder Technology, 2011, 205, 263-269.	4.2	165
3	Thermal stress-induced microcracking in building granite. Engineering Geology, 2016, 206, 83-93.	6.3	147
4	Surface temperature differences between minerals in crystalline rocks: Implications for granular disaggregation of granites through thermal fatigue. Geomorphology, 2006, 78, 236-249.	2.6	133
5	Synthesis, Photocatalytic, and Antifungal Properties of MgO, ZnO and Zn/Mg Oxide Nanoparticles for the Protection of Calcareous Stone Heritage. ACS Applied Materials & Interfaces, 2017, 9, 24873-24886.	8.0	121
6	Influence of porosity and relative humidity on consolidation of dolostone with calcium hydroxide nanoparticles: Effectiveness assessment with non-destructive techniques. Materials Characterization, 2010, 61, 168-184.	4.4	120
7	Freeze–thaw fracturing in building granites. Cold Regions Science and Technology, 2015, 113, 40-51.	3.5	115
8	New nanomaterials for applications in conservation and restoration of stony materials: A review. Materiales De Construccion, 2017, 67, 107.	0.7	106
9	Influence of surface roughness on color changes in building stones. Color Research and Application, 2003, 28, 343-351.	1.6	98
10	Pore size distribution and the durability of a porous limestone. Quarterly Journal of Engineering Geology and Hydrogeology, 1997, 30, 221-230.	1.4	93
11	Thermodynamic modelling of changes induced by salt pressure crystallisation in porous media of stone. Journal of Crystal Growth, 1999, 204, 168-178.	1.5	82
12	Sedimentology and geochemistry of carbonates from lacustrine sequences in the Madrid Basin, central Spain. Chemical Geology, 1995, 123, 173-191.	3.3	77
13	Non-destructive testing for the assessment of granite decay in heritage structures compared to quarry stone. International Journal of Rock Mechanics and Minings Sciences, 2013, 61, 296-305.	5.8	71
14	Natural cement as the precursor of Portland cement: Methodology for its identification. Cement and Concrete Research, 2005, 35, 2055-2065.	11.0	68
15	Characterizing the Microbial Colonization of a Dolostone Quarry: Implications for Stone Biodeterioration and Response to Biocide Treatments. Microbial Ecology, 2011, 62, 299-313.	2.8	68
16	Fluctuations in the indoor environment in Spanish rural churches and their effects on heritage conservation: Hygro-thermal and CO 2 conditions monitoring. Building and Environment, 2014, 82, 97-109.	6.9	64
17	Impacts of Fire on Stone-Built Heritage. Journal of Architectural Conservation, 2009, 15, 47-58.	0.9	63
18	Determination of anisotropy to enhance the durability of natural stone. Journal of Geophysics and Engineering, 2011, 8, S132-S144.	1.4	63

#	Article	IF	CITATIONS
19	Influence of surface heterogeneities of building granite on its thermal response and its potential for the generation of thermoclasty. Environmental Geology, 2008, 56, 547-560.	1.2	60
20	Patterns of halite (NaCl) crystallisation in building stone conditioned by laboratory heating regimes. Environmental Geology, 2007, 52, 259-267.	1.2	58
21	Soluble salt minerals from pigeon droppings as potential contributors to the decay of stone based Cultural Heritage. European Journal of Mineralogy, 2004, 16, 505-509.	1.3	55
22	Exfoliation microcracks in building granite. Implications for anisotropy. Engineering Geology, 2017, 220, 85-93.	6.3	54
23	Lime mortar consolidation with nanostructured calcium hydroxide dispersions: the efficacy of different consolidating products for heritage conservation. European Journal of Mineralogy, 2015, 27, 311-323.	1.3	53
24	Monitoring the thermal–hygrometric conditions induced by traditional heating systems in a historic Spanish church (12th–16th C). Energy and Buildings, 2014, 75, 119-132.	6.7	51
25	Structural stability of a colloidal solution of Ca(OH)2 nanocrystals exposed to high relative humidity conditions. Applied Physics A: Materials Science and Processing, 2011, 104, 1249-1254.	2.3	50
26	Artificial weathering of Spanish granites subjected to salt crystallization tests: Surface roughness quantification. Catena, 2010, 83, 170-185.	5.0	49
27	Synthesis and morpho-structural characterization of nanostructured magnesium hydroxide obtained by a hydrothermal method. Ceramics International, 2014, 40, 12285-12292.	4.8	47
28	Evaluation of post-thermal shock effects in Carrara marble and Santa Caterina di Pittinuri limestone. Construction and Building Materials, 2018, 186, 1200-1211.	7.2	47
29	Evolution in the use of natural building stone in Madrid, Spain. Quarterly Journal of Engineering Geology and Hydrogeology, 2013, 46, 421-429.	1.4	46
30	Protective patinas applied on stony façades of historical buildings in the past. Construction and Building Materials, 2003, 17, 83-89.	7.2	41
31	Accelerating carbonation in lime-based mortar in high CO2 environments. Construction and Building Materials, 2018, 188, 314-325.	7.2	41
32	Ultrasonic pulse velocity as a way of improving uniaxial compressive strength estimations from Leeb hardness measurements. Construction and Building Materials, 2020, 261, 119996.	7.2	41
33	Atomic Defects and Their Relationship to Aragonite–Calcite Transformation in Portlandite Nanocrystal Carbonation. Crystal Growth and Design, 2012, 12, 4844-4852.	3.0	39
34	Effect of conservation treatments on heritage stone. Characterisation of decay processes in a case study. Construction and Building Materials, 2015, 95, 611-622.	7.2	39
35	A comprehensive study for moisture control in cultural heritage using non-destructive techniques. Journal of Applied Geophysics, 2018, 155, 36-52.	2.1	39
36	Characterization of patinas by means of microscopic techniques. Materials Characterization, 2007, 58, 1119-1132.	4.4	38

#	Article	IF	CITATIONS
37	Nucleation of CaCO3 polymorphs from a colloidal alcoholic solution of Ca(OH)2 nanocrystals exposed to low humidity conditions. Applied Physics A: Materials Science and Processing, 2012, 106, 213-217.	2.3	38
38	La Piedra de Novelda: una roca muy utilizada en el patrimonio arquitectÃ <sup>3</sup> nico. Materiales De Construccion, 2002, 52, 19-32.	0.7	35
39	Mortars and plasters—How to characterize aerial mortars and plasters. Archaeological and Anthropological Sciences, 2021, 13, 1.	1.8	32
40	Characterisation of monzogranitic batholiths as a supply source for heritage construction in the northwest of Madrid. Engineering Geology, 2010, 115, 149-157.	6.3	31
41	Preservation strategies for avoidance of salt crystallisation in El Paular Monastery cloister, Madrid, Spain. Environmental Earth Sciences, 2011, 63, 1487-1509.	2.7	30
42	Microclimatic monitoring in an historic church fitted with modern heating: Implications for the preventive conservation of its cultural heritage. Building and Environment, 2018, 145, 290-307.	6.9	30
43	Crystal development during carbonation of lime-based mortars in different environmental conditions. Materials Characterization, 2018, 142, 276-288.	4.4	30
44	Historical City Centres and Traditional Building Stones as Heritage: Barrio de las Letras, Madrid (Spain). Geoheritage, 2019, 11, 71-85.	2.8	29
45	The measurement of surface roughness to determine the suitability of different methods for stone cleaning. Journal of Geophysics and Engineering, 2012, 9, S108-S117.	1.4	28
46	Influence of wavelength on the laser removal of lichens colonizing heritage stone. Applied Surface Science, 2017, 399, 758-768.	6.1	27
47	Diammonium hydrogen phosphate (DAP) as a consolidant in carbonate stones: Impact of application methods on effectiveness. Journal of Cultural Heritage, 2020, 42, 45-55.	3.3	27
48	Influencia de la anisotropÃa en la durabilidad de las dolomÃas Cretácicas de la Comunidad de Madrid frente a la cristalización de sales. Materiales De Construccion, 2008, 58, 161-178.	0.7	27
49	Weathering rates of historic sandstone structures in semiarid environments (Ebro basin, NE Spain). Catena, 2003, 53, 53-64.	5.0	26
50	Possibilities of monitoring the polymerization process of silicon-based water repellents and consolidants in stones through infrared and Raman spectroscopy. Progress in Organic Coatings, 2008, 63, 5-12.	3.9	26
51	Effect of solar radiation and humidity on the inner core of walls in historic buildings. Construction and Building Materials, 2014, 51, 383-394.	7.2	26
52	Biodeterioration of marble in an underwater environment. Science of the Total Environment, 2017, 609, 109-122.	8.0	26
53	An urban geomonumental route focusing on the petrological and decay features of traditional building stones used in Madrid, Spain. Environmental Earth Sciences, 2013, 69, 1071-1084.	2.7	25
54	Ghaleh-khargushi rhyodacite and Gorid andesite from Iran: characterization, uses, and durability. Environmental Earth Sciences, 2018, 77, 1.	2.7	25

#	Article	IF	CITATIONS
55	Laser removal of water repellent treatments on limestone. Applied Surface Science, 2003, 219, 290-299.	6.1	22
56	Artificial microcracking of granites subjected to salt crystallization aging test. Bulletin of Engineering Geology and the Environment, 2020, 79, 5499-5515.	3.5	22
57	Chromatic parameters as performance indicators for stone cleaning techniques. Color Research and Application, 2000, 25, 442-446.	1.6	20
58	Stone decay in 18th century monuments due to iron corrosion. The Royal Palace, Madrid (Spain). Building and Environment, 2004, 39, 357-364.	6.9	20
59	Short- and Longer-Term Consolidation Effects of Portlandite (CaOH)2 Nanoparticles in Carbonate Stones. Journal of Materials in Civil Engineering, 2013, 25, 1655-1665.	2.9	20
60	Multi-technical characterization of Roman mortars from Complutum, Spain. Measurement: Journal of the International Measurement Confederation, 2019, 147, 106876.	5.0	19
61	Alpedrete granite (Spain). A nomination for the "Global Heritage Stone Resource―designation. Episodes, 2015, 38, 106-113.	1.2	19
62	Laser-induced fluorescence and FT-Raman spectroscopy for characterizing patinas on stone substrates. Analytical and Bioanalytical Chemistry, 2012, 402, 1433-1441.	3.7	18
63	Assessment on the performances of air lime-ceramic mortars with nano-Ca(OH)2 and nano-SiO2 additions. Construction and Building Materials, 2020, 232, 117163.	7.2	18
64	Assessment of Different Methods for Cleaning the Limestone Façades of the Former Workers Hospital of Madrid, Spain. Studies in Conservation, 2011, 56, 298-313.	1.1	17
65	Archaeological ceramic amphorae from underwater marine environments: Influence of firing temperature on salt crystallization decay. Journal of the European Ceramic Society, 2013, 33, 2031-2042.	5.7	17
66	Experimental assessment of a wireless communications platform for the built and natural heritage. Measurement: Journal of the International Measurement Confederation, 2016, 82, 188-201.	5.0	17
67	Contributions of scanning electron microscopy to the assessment of the effectiveness of stone conservation treatments. Scanning, 2004, 26, 41-47.	1.5	16
68	Decay of the restoration render mortar of the church of San Manuel and San Benito, Madrid, Spain: Results from optical and electron microscopy. Materials Characterization, 2008, 59, 1531-1540.	4.4	16
69	Dating fires and estimating the temperature attained on stone surfaces. The case of Ciudad de Vascos (Spain). Microchemical Journal, 2016, 127, 247-255.	4.5	16
70	Causes of scaling on bush-hammered heritage ashlars: a case study—Plaza Mayor of Madrid (Spain). Environmental Earth Sciences, 2016, 75, 1.	2.7	15
71	Sacrificial mortars for surface desalination. Construction and Building Materials, 2018, 173, 452-460.	7.2	15
72	The Influence of Past Protective Treatments on the Deterioration of Historic Stone Façades A Case Study. Studies in Conservation, 2007, 52, 110-124.	1.1	14

#	Article	IF	CITATIONS
73	Improving uniaxial compressive strength estimation of carbonate sedimentary rocks by combining minimally invasive and non-destructive techniques. International Journal of Rock Mechanics and Minings Sciences, 2021, 147, 104915.	5.8	14
74	The use of a portable energy dispersive x-ray fluorescence spectrometer for the characterization of patinas from the architectural heritage of the Iberian peninsula. X-Ray Spectrometry, 2008, 37, 399-409.	1.4	13
75	Colmenar Limestone, Madrid, Spain: considerations for its nomination as a Global Heritage Stone Resource due to its long term durability. Geological Society Special Publication, 2015, 407, 121-135.	1.3	13
76	Black Layers of Decay and Color Patterns on Heritage Limestone as Markers of Environmental Change. Geosciences (Switzerland), 2016, 6, 4.	2.2	13
77	Effect of manufacturing methods on the decay of ceramic materials: A case study of bricks in modern architecture of Madrid (Spain). Applied Clay Science, 2017, 135, 136-149.	5.2	13
78	The Use of Portable Raman Spectroscopy to Identify Conservation Treatments Applied to Heritage Stone. Spectroscopy Letters, 2012, 45, 146-150.	1.0	12
79	Wireless monitoring to evaluate the effectiveness of roofing systems over archaeological sites. Sensors and Actuators A: Physical, 2016, 252, 120-133.	4.1	12
80	Sol–gel synthesis of Mg(OH)2 and Ca(OH)2 nanoparticles: a comparative study of their antifungal activity in partially quaternized p(DMAEMA) nanocomposite films. Journal of Sol-Gel Science and Technology, 2019, 89, 310-321.	2.4	12
81	How does anisotropy in bedrock river granitic outcrops influence pothole genesis and development?. Earth Surface Processes and Landforms, 2017, 42, 956-968.	2.5	11
82	The effects of DiloCarB as carbonation accelerator on the properties of lime mortars. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	3.1	11
83	Characterization of concrete from Roman buildings for public spectacles in Emerita Augusta (Mérida,) Tj ETQq1	1 0.78431 1.8	14.rgBT /O
84	Estudio geoquÃmico de los yesos miocenos de la zona este de la cuenca de Madrid. Estudios Geologicos, 1986, 42, 387-396.	0.2	11
85	Genetic implications of trace-element distributions in carbonate and non-carbonate phases of limestones and dolostones from western Cantabria, Spain. Chemical Geology, 1992, 97, 273-283.	3.3	10
86	Routing Topologies of Wireless Sensor Networks for Health Monitoring of a Cultural Heritage Site. Sensors, 2016, 16, 1732.	3.8	10
87	Monitoring façade soiling as a maintenance strategy for the sensitive built heritage. International Journal of Architectural Heritage, 2018, 12, 816-827.	3.1	10
88	Characterization of the wall paintings in La Casa de los Grifos of Roman city Complutum. European Physical Journal Plus, 2018, 133, 1.	2.6	10
89	Electroprecipitation of Magnesium and Calcium Compounds for Weathering Protection of Ornamental Rocks. Crystal Growth and Design, 2020, 20, 2337-2355.	3.0	10
90	Electrokinetic desalination of a farmhouse applying a proton pump approach. First in situ experience. Construction and Building Materials, 2020, 243, 118308.	7.2	10

#	Article	IF	CITATIONS
91	Implications of new mineral phases in the isotopic composition of Roman lime mortars at the Kom el-Dikka archaeological site in Egypt. Construction and Building Materials, 2021, 268, 121085.	7.2	10
92	Definition of analytical cleaning procedures for archaeological pottery from underwater environments: The case study of samples from Baia (Naples, South Italy). Materials and Design, 2021, 197, 109278.	7.0	10
93	Historical Quarries, Decay and Petrophysical Properties of Carbonate Stones Used in the Historical Center of Madrid (Spain). AIMS Geosciences, 2017, 3, 284-303.	1.0	10
94	Contribution of analytical techniques to determine the technologies used in the ceramic materials from the Former Workers Hospital of Maudes, Madrid (Spain). Journal of the European Ceramic Society, 2013, 33, 479-491.	5.7	9
95	TEM-HRTEM study on the dehydration process of nanostructured Mg–Ca hydroxide into Mg–Ca oxide. Ceramics International, 2016, 42, 9455-9466.	4.8	9
96	Wireless environmental monitoring coupled to NDT for decay risk analysis (at St. Joseph Chapel in) Tj ETQq0 0 0	rg&T/Over 4.1	loçk 10 Tf 50
97	Morphometric measurements of bedrock rivers at different spatial scales and applications to geomorphological heritage research. Progress in Earth and Planetary Science, 2019, 6, .	3.0	9
98	Effects of potassium ferrocyanide used for desalination on lime composite performances in different curing regimes. Construction and Building Materials, 2020, 259, 120409.	7.2	9
99	Addition of ferrocyanide-based compounds to repairing joint lime mortars as a protective method for porous building materials against sodium chloride damage. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	3.1	9
100	Evaluación del tratamiento de consolidación de dolomÃas mediante nanopartÃculas de hidróxido de calcio en condiciones de alta humedad relativa. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2011, 50, 85-92.	1.9	9
101	Introducción: La Piedra Natural y el Patrimonio construido: Un mismo campo de investigación. Materiales De Construccion, 2008, 58, 7-10.	0.7	9
102	Overview of recent knowledge of patinas on stone monuments: the Spanish experience. Geological Society Special Publication, 2007, 271, 295-307.	1.3	8
103	Strength anisotropy in building granites. International Journal of Architectural Heritage, 2017, , 1-13.	3.1	8
104	Assessment of an underfloor heating system in a restored chapel: Balancing thermal comfort and historic heritage conservation. Energy and Buildings, 2021, 251, 111361.	6.7	8
105	Heritage Stone 4. The Piedra Berroqueña Region: Candidacy for Global Heritage Stone Province Status. Geoscience Canada, 2016, 43, 43.	0.8	8
106	The origin and development of natural cements: The Spanish experience. Construction and Building Materials, 2007, 21, 436-445.	7.2	7
107	Evaluation of Portable Raman for the Characterization of Salt Efflorescences at Petra, Jordan. Spectroscopy Letters, 2011, 44, 505-510.	1.0	7
108	Porosity and hydric behavior of typical calcite microfabrics in stalagmites. Sedimentary Geology, 2012, 265-266, 72-86.	2.1	7

#	Article	IF	CITATIONS
109	Application of magnesium hydroxide nanocoatings on cellulose fibers with different refining degrees. RSC Advances, 2016, 6, 51583-51590.	3.6	7
110	In-situ electrochemical synthesis of inorganic compounds for materials conservation: Assessment of their effects on the porous structure. Ceramics International, 2021, 47, 30406-30424.	4.8	7
111	Specific surface area and ultramicroporosity in polymorphs of silica. European Journal of Mineralogy, 1993, 5, 1195-1204.	1.3	7
112	AN ANALYTICAL STUDY OF IBERIAN IRON AGE STONE SCULPTURES AND THEIR SURFACE MARKS. Archaeometry, 2013, 55, 391-406.	1.3	6
113	Correlation between microstructure and cathodoluminescence properties of Mg(OH) <sub>2</sub> (brucite) nanoparticles: effect of synthesis method. CrystEngComm, 2018, 20, 5632-5640.	2.6	6
114	Atomic scale study of the dehydration/structural transformation in micro and nanostructured brucite (Mg(OH)2) particles: Influence of the hydrothermal synthesis conditions. Advanced Powder Technology, 2017, 28, 61-72.	4.1	5
115	Thermal Stresses. , 2006, , 427-437.		5
116	Caracterización de la Fábrica de Ladrillo del Palacio del Infante Don Luis, Boadilla del Monte, Madrid. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2004, 43, 578-582.	1.9	5
117	Nomination of Zarzalejo Granite, a Spanish Heritage Building Stone, as a "Global Heritage Stone Resource― Energy Procedia, 2015, 76, 642-651.	1.8	4
118	Polygonal cracking in granite and considerations for a morphological classification (La Pedriza de) Tj ETQq0 0	0 rgBT /Ove 1.3	rlock 10 Tf 50
119	San Pedro Leucogranite from a Coruña, Northwest of Spain: Uses of a Heritage Stone. Energy Procedia, 2016, 97, 554-561.	1.8	4
120	Sensor-based monitoring of heating system effectiveness and efficiency in Spanish churches. Indoor and Built Environment, 2017, 26, 1102-1122.	2.8	4
121	Multidisciplinary study of glazed ceramics from ChamberÃ-Metro Station (Madrid, Spain): A knowledge base with technological and heritage value. Applied Clay Science, 2019, 175, 102-114.	5.2	4
122	Selective use of limestone in Iberian Iron Age sculptures and monuments: a case study from Jutia (Albacete, Spain). Archaeological and Anthropological Sciences, 2019, 11, 853-870.	1.8	4
123	Provenance analysis of the granitic ashlars used in the construction of the Roman theatre in Emerita Augusta (Merida, Spain). Archaeological and Anthropological Sciences, 2020, 12, 1.	1.8	4
124	Los ladrillos del recinto amurallado de Talamanca de Jarama, Madrid: criterios para su diferenciación. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2007, 46, 145-152.	1.9	4
125	Limpieza de los materiales pétreos de la Catedral de Valladolid (España). Materiales De Construccion, 2000, 50, 37-50.	0.7	4
126	Detection of calcium phosphates in calcium oxalate patinas. European Journal of Mineralogy, 2012, 24, 1031-1045.	1.3	3

#	Article	IF	CITATIONS
127	Inorganic Nanomaterials for the Consolidation and Antifungal Protection of Stone Heritage. , 2018, , 125-149.		3
128	Cadalso de los Vidrios leucogranite â€~Blanco Cristal': a widely used heritage stone from Spain. Geological Society Special Publication, 2020, 486, 53-65.	1.3	3
129	Efficacy of acid treatments used in archaeological ceramics for the removal of calcareous deposits. European Physical Journal Plus, 2021, 136, 1.	2.6	3
130	Appraisal of non-destructive in situ techniques to determine moisture- and salt crystallization-induced damage in dolostones. Journal of Building Engineering, 2022, 53, 104525.	3.4	3
131	Limestone on the †Don Pedro l' facade in the Real AlcÃ;zar compound, Seville, Spain. Geological Society Special Publication, 2010, 331, 171-182.	1.3	2
132	Klebsiella aerogenes and Comamonas testosteroni as bioremoval agents on graffiti-coated concrete and granite: Impact assessment through surface analysis. International Biodeterioration and Biodegradation, 2021, 161, 105244.	3.9	2
133	El Monasterio de Uclés (Cuenca, España): caracterización y deterioro de los materiales de construcción. Materiales De Construccion, 2004, 54, 5-22.	0.7	2
134	Application of acoustic impedance gun to non-destructively monitor stone damage. Construction and Building Materials, 2022, 323, 126510.	7.2	2
135	Antifouling Mortars for Underwater Restoration. Nanomaterials, 2022, 12, 1498.	4.1	2
136	Influence of curing conditions on the mechanical and hydric performance of air-lime mortars with nano-Ca(OH)2 and nano-SiO2 additions. Cement and Concrete Composites, 2022, 132, 104631.	10.7	2
137	Gypsum Decay Simulation: Risco de las Cuevas Case Study, Madrid, Spain. , 2015, , 491-494.		1
138	Evolution of C–S–H in lime mortars with nanoparticles: Nanostructural analysis of afwillite growth mechanisms by HRTEM. Journal of the American Ceramic Society, 2022, 105, 5472-5489.	3.8	1
139	Laser Removal of Protective Treatments on Limestone. , 2005, , 149-155.		0
140	La caliza de Morata de Tajuña, Comunidad de Madrid: una piedra tradicional de construcción en la capital a principios del siglo XX Boletin Geologico Y Minero, 2017, 128, 963-988.	0.1	0
141	Analytical characterisation of the granitic rocks used in the vomitoria of the Roman amphitheatre in Emerita Augusta. Rendiconti Lincei, 2022, 33, 57-70.	2.2	0