

Gorka Arana

List of Publications by Year in descending order

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123
papers

2,383
citations

201385

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126
docs citations

126
times ranked

2446
citing authors

#	ARTICLE	IF	CITATIONS
1	Reviewing in situ analytical techniques used to research Martian geochemistry: From the Viking Project to the MMX future mission. <i>Analytica Chimica Acta</i> , 2022, 1197, 339499.	2.6	9
2	SuperCam calibration targets on board the perseverance rover: Fabrication and quantitative characterization. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2022, 188, 106341.	1.5	20
3	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2022, 188, 106347.	1.5	40
4	Assessment of hazardous compounds in building materials accumulated by the action of the atmospheric pollution. , 2022, , 11-31.		0
5	In situ recording of Mars soundscape. <i>Nature</i> , 2022, 605, 653-658.	13.7	30
6	Ionogel-based hybrid polymer-paper handheld platform for nitrite and nitrate determination in water samples. <i>Analytica Chimica Acta</i> , 2022, 1205, 339753.	2.6	8
7	Mineralogy of the RBT 04262 Martian meteorite as determined by micro-Raman and micro-X-ray fluorescence spectroscopies. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 450-462.	1.2	5
8	Raman study of the ageing test of natural hydraulic lime under the influence of industrial port activities. <i>Journal of Raman Spectroscopy</i> , 2022, 53, 608-616.	1.2	1
9	Improvement of Oil Valorization Extracted from Fish By-Products Using a Handheld near Infrared Spectrometer Coupled with Chemometrics. <i>Foods</i> , 2022, 11, 1092.	1.9	7
10	Homogeneity assessment of the SuperCam calibration targets onboard rover perseverance. <i>Analytica Chimica Acta</i> , 2022, 1209, 339837.	2.6	9
11	Analytical Techniques Applied to the Study of Industrial Archaeology Heritage: The Case of Plaiko Zubixe Footbridge. <i>Molecules</i> , 2022, 27, 3609.	1.7	2
12	Understanding the degradation of the blue colour in the wall paintings of Ariadne's house (Pompeii). <i>Tj ETQqO O O rgBT /Overlock 10 Tf 5</i>	1.2	9
13	Spectroscopic-assisted archaeometric studies to determine the production technology of the VI BC Zeus Enthroned statue (Paestum, Italy) and Pre-Roman technology transfer. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 249, 119294.	2.0	2
14	Development of innovative non-destructive analytical strategies for Mars Sample Return tested on Dar al Gani 735 Martian Meteorite. <i>Talanta</i> , 2021, 224, 121863.	2.9	9
15	Portable Raman can be the new hammer for architects restoring 20th-century built heritage elements made of reinforced concrete. <i>Journal of Raman Spectroscopy</i> , 2021, 52, 109-122.	1.2	10
16	Interrelationships in the Gypsum-Syngenite-GÃrgeyite System and Their Possible Formation on Mars. <i>Astrobiology</i> , 2021, 21, 332-344.	1.5	8
17	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. <i>Space Science Reviews</i> , 2021, 217, 1.	3.7	131
18	Characterization of sedimentary and volcanic rocks in Armintza outcrop (Biscay, Spain) and its implication for Oxia Planum (Mars) exploration. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 251, 119443.	2.0	3

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19	Pottery making tradition in Logroño: an archaeometric approach to the Late Medieval workshops. <i>Archaeological and Anthropological Sciences</i> , 2021, 13, 1.	0.7	0
20	Geochemical Characterization of the NWA 11273 Lunar Meteorite Using Nondestructive Analytical Techniques: Original, Shocked, and Alteration Mineral Phases. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1333-1342.	1.2	7
21	Development of a novel method for the in-situ dechlorination of immovable iron elements: optimization of Cl ⁻ extraction yield through experimental design. <i>Scientific Reports</i> , 2021, 11, 10789.	1.6	5
22	The supply of ceramics to Portuguese North African strongholds in the 15th and 16th centuries: New archaeometric data from Ksar Seghir and Ceuta. <i>Journal of Archaeological Science: Reports</i> , 2021, 37, 102908.	0.2	1
23	Non-Destructive Analytical Investigation of Decorative Wallpapers Samples of the Nineteenth Century before Their Restoration. <i>Sensors</i> , 2021, 21, 4416.	2.1	1
24	The potential of in situ Raman spectroscopy in the study of the health of cement-based materials of modern buildings during restoration works. <i>Journal of Raman Spectroscopy</i> , 2021, 52, 1868-1877.	1.2	3
25	Alterations and Contaminations in Ceramics Deposited in Underwater Environments: An Experimental Approach. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 766.	0.8	2
26	Spectroscopic characterization of xx century mural paintings of punta bego's galleries under conservation works. <i>Microchemical Journal</i> , 2021, 168, 106423.	2.3	6
27	Graffiti Characterization Prior to Intervention in the Punta Bego's Galleries (Getxo, North of Spain): Raman and XRF Spectroscopy in the Service of Restoration. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8640.	1.3	1
28	Detection of unexpected copper sulfate decay compounds on late Gothic mural paintings: Assessing the threat of environmental impact. <i>Microchemical Journal</i> , 2021, 169, 106542.	2.3	7
29	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. <i>Space Science Reviews</i> , 2021, 217, 4.	3.7	160
30	Study of a terrestrial Martian analogue: Geochemical characterization of the Meakoz outcrops (Biscay, Spain). <i>Journal of Raman Spectroscopy</i> , 2020, 51, 1603-1612.	1.2	5
31	Deciphering past and present atmospheric metal pollution of urban environments: The role of black crusts formed on historical constructions. <i>Journal of Cleaner Production</i> , 2020, 243, 118594.	4.6	18
32	New Raman-visible near-infrared database of inorganic and mineralogical planetary and terrestrial compounds and its implications for Mars: Phyllosilicates. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 1750-1760.	1.2	7
33	Hit and sunk: provenance and alterations of ceramics from seventeenth century Angra D shipwreck. <i>Archaeological and Anthropological Sciences</i> , 2020, 12, 1.	0.7	7
34	SuperCam Calibration Targets: Design and Development. <i>Space Science Reviews</i> , 2020, 216, 138.	3.7	44
35	Modern Era pottery from the archaeological site at the Ethnographic Museum of Zamora (north-western Spain): An archaeometric analysis. <i>Journal of Archaeological Science: Reports</i> , 2020, 33, 102514.	0.2	2
36	Photogeologic Map of the Perseverance Rover Field Site in Jezero Crater Constructed by the Mars 2020 Science Team. <i>Space Science Reviews</i> , 2020, 216, 1.	3.7	67

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37	Submerged and reused: An archaeometric approach to the early Modern ceramics from Aveiro (Portugal). <i>Journal of Archaeological Science: Reports</i> , 2020, 34, 102648.	0.2	3
38	Development of a cost effective passive sampler to quantify the particulate matter depositions on building materials over time. <i>Journal of Cleaner Production</i> , 2020, 268, 122134.	4.6	17
39	Enhancement and recovery of the tiles affected by atmospheric pollutants in the Galleries of Punta Begoña, Getxo (Bizkaia). <i>Boletín De La Sociedad Española De Cerámica Y Vidrio</i> , 2019, 58, 161-170.	0.9	3
40	Long term monitoring of metal pollution in sediments as a tool to investigate the effects of engineering works in estuaries. A case study, the Nerbioi-Ibaizabal estuary (Bilbao, Basque Country). <i>Marine Pollution Bulletin</i> , 2019, 145, 555-563.	2.3	12
41	An archaeometric approach to the majolica pottery from alcazar of Nájera archaeological site. <i>Heritage Science</i> , 2019, 7, .	1.0	10
42	Pottery from Orduña Village in the 17th–19th centuries: An archaeometrical approach. <i>Journal of Archaeological Science: Reports</i> , 2019, 23, 304-323.	0.2	5
43	Evidence of mercury sequestration by carbon nanotubes and nanominerals present in agricultural soils from a coal fired power plant exhaust. <i>Journal of Hazardous Materials</i> , 2019, 378, 120747.	6.5	57
44	Non-destructive screening methodology based on ED-XRF for the classification of medieval and post-medieval archaeological ceramics. <i>Ceramics International</i> , 2019, 45, 10672-10683.	2.3	10
45	The Raman spectra of the Na ₂ SO ₄ •K ₂ SO ₄ system: Applicability to soluble salts studies in built heritage. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 175-183.	1.2	24
46	The combination of Raman imaging and LIBS for quantification of original and degradation materials in Cultural Heritage. <i>Journal of Raman Spectroscopy</i> , 2019, 50, 193-201.	1.2	11
47	Micro-Raman and SEM-EDS analyses to evaluate the nature of salt clusters present in secondary marine aerosol. <i>Science of the Total Environment</i> , 2018, 615, 691-697.	3.9	21
48	Overview of the techniques used for the study of non-terrestrial bodies: Proposition of novel non-destructive methodology. <i>TrAC - Trends in Analytical Chemistry</i> , 2018, 98, 36-46.	5.8	18
49	Non-destructive characterisation of the Elephant Moraine 83227 meteorite using confocal Raman, micro-energy-dispersive X-ray fluorescence and Raman-scanning electron microscope-energy-dispersive X-ray microscopies. <i>Analytical and Bioanalytical Chemistry</i> , 2018, 410, 7477-7488.	1.9	7
50	In-situ analytical study of bricks exposed to marine environment using hand-held X-ray fluorescence spectrometry and related laboratory techniques. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2018, 146, 28-35.	1.5	32
51	The use of a standard digital camera as an inexpensive, portable, fast and non-destructive analytical tool to measure colour: Estimation of the ripening stage of tomatoes (<i>Solanum lycopersicum</i>) as a case study. <i>Microchemical Journal</i> , 2017, 134, 284-288.	2.3	18
52	Decadal trends in atmospheric deposition in a high elevation station: Effects of climate and pollution on the long-range flux of metals and trace elements over SW Europe. <i>Atmospheric Environment</i> , 2017, 167, 542-552.	1.9	22
53	Portable and Raman imaging usefulness to detect decaying on mortars from Punta Begoña Galleries (Getxo, North of Spain). <i>Journal of Raman Spectroscopy</i> , 2016, 47, 1458-1466.	1.2	30
54	Ionogel-based nitrate sensor device. , 2016, , .		1

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55	Ionogel-based Nitrite and Nitrate Sensor for Water Control at the Point-of-Need. <i>Procedia Engineering</i> , 2016, 168, 518-521.	1.2	3
56	Occurrence and geographical distribution of metals and metalloids in sediments of the Nerbioi-Ibaizabal estuary (Bilbao, Basque Country). <i>Marine Chemistry</i> , 2016, 185, 82-90.	0.9	14
57	Is there a direct relationship between stress biomarkers in oysters and the amount of metals in the sediments where they inhabit?. <i>Marine Pollution Bulletin</i> , 2016, 111, 95-105.	2.3	10
58	Uptake and Distribution of Trace Elements in Dominant Mangrove Plants of the Indian Sundarban Wetland. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2016, 97, 721-727.	1.3	13
59	The mobilization of hazardous elements after a tropical storm event in a polluted estuary. <i>Science of the Total Environment</i> , 2016, 565, 721-729.	3.9	56
60	Diffuse reflectance FTIR database for the interpretation of the spectra obtained with a handheld device on built heritage materials. <i>Analytical Methods</i> , 2015, 7, 1061-1070.	1.3	33
61	Analytical study to evaluate the origin and severity of damage caused by salt weathering in a historical Palace House: the attack of infiltration water. <i>Analytical Methods</i> , 2015, 7, 4608-4615.	1.3	14
62	Sample pretreatment to differentiate between bioconcentration and atmospheric deposition of polycyclic aromatic hydrocarbons in mosses. <i>Chemosphere</i> , 2015, 122, 295-300.	4.2	13
63	A chemical status predictor. A methodology based on World-Wide sediment samples. <i>Journal of Environmental Management</i> , 2015, 161, 21-29.	3.8	4
64	Bioimpact on weathering steel surfaces: Oxalates formation and the elucidation of their origin. <i>International Biodeterioration and Biodegradation</i> , 2015, 104, 59-66.	1.9	17
65	In situ DRIFT, Raman, and XRF implementation in a multianalytical methodology to diagnose the impact suffered by built heritage in urban atmospheres. <i>Analytical and Bioanalytical Chemistry</i> , 2015, 407, 5635-5647.	1.9	26
66	Spatial distribution of some trace and major elements in sediments of the Cávado estuary (Esposende). <i>Journal of Environmental Management</i> , 2015, 161, 21-29.	2.3	16
67	Fate of hazardous elements in agricultural soils surrounding a coal power plant complex from Santa Catarina (Brazil). <i>Science of the Total Environment</i> , 2015, 508, 374-382.	3.9	91
68	Applicability of a Diffuse Reflectance Infrared Fourier Transform handheld spectrometer to perform in situ analyses on Cultural Heritage materials. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 129, 259-267.	2.0	44
69	Methodology to assess the mobility of trace elements between water and contaminated estuarine sediments as a function of the site physico-chemical characteristics. <i>Science of the Total Environment</i> , 2014, 473-474, 359-371.	3.9	29
70	The problem of sampling on built heritage: a preliminary study of a new non-invasive method. <i>Environmental Science and Pollution Research</i> , 2014, 21, 12518-12529.	2.7	12
71	Determination of the pigments present in a wallpaper of the middle nineteenth century: The combination of mid-diffuse reflectance and far infrared spectroscopies. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2014, 124, 308-314.	2.0	16
72	A new index to sort estuarine sediments according to their contaminant content. <i>Ecological Indicators</i> , 2014, 45, 364-370.	2.6	26

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73	Chapter 6. Use of Raman spectroscopy and scanning electron microscopy for the detection and analysis of road transport pollution. <i>Spectroscopic Properties of Inorganic and Organometallic Compounds</i> , 2014, , 178-210.	0.4	4
74	Ultrasound assisted dialysis of semi-permeable membrane devices for the simultaneous analysis of a wide number of persistent organic pollutants. <i>Talanta</i> , 2013, 114, 32-37.	2.9	5
75	Diagnosing the traffic impact on roadside soils through a multianalytical data analysis of the concentration profiles of traffic-related elements. <i>Science of the Total Environment</i> , 2013, 458-460, 427-434.	3.9	66
76	Long-term monitoring of metal pollution in sediments from the estuary of the Nerbioi-Ibaizabal River (2005-2010). <i>Estuarine, Coastal and Shelf Science</i> , 2013, 131, 129-139.	0.9	14
77	In-situ spectroscopic assessment of the conservation state of building materials from a Palace house affected by infiltration water. <i>Journal of Raman Spectroscopy</i> , 2013, 44, 1277-1284.	1.2	47
78	Raman spectroscopy assisted with XRF and chemical simulation to assess the synergic impacts of guardrails and traffic pollutants on urban soils. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 1498-1503.	1.2	18
79	Traffic related metal distribution profiles and their impact on urban soils. <i>Alliance for Global Sustainability Bookseries</i> , 2012, , 383-392.	0.2	2
80	THE USE OF SPMDs AND IMPLANTED OYSTERS FOR MONITORING PAHs AND PCBs IN AN AQUATIC ENVIRONMENT IN THE ESTUARY OF URDAIBAI (WESTERN PYRENEES). <i>Environmental Engineering and Management Journal</i> , 2012, 11, 1707-1714.	0.2	5
81	Pattern recognition and classification of sediments according to their metal content using chemometric tools. A case study: The estuary of Nerbioi-Ibaizabal River (Bilbao, Basque Country). <i>Chemosphere</i> , 2011, 85, 1347-1352.	4.2	15
82	Spectroscopic evaluation of the environmental impact on black crusted modern mortars in urban-industrial areas. <i>Analytical and Bioanalytical Chemistry</i> , 2011, 399, 2949-2959.	1.9	31
83	Occurrence and Distribution of Metals in Mussels from the Cantabrian Coast. <i>Archives of Environmental Contamination and Toxicology</i> , 2010, 59, 235-243.	2.1	38
84	Classification of archaeological pieces into their respective stratum by a chemometric model based on the soil concentration of 25 selected elements. <i>Spectrochimica Acta, Part B: Atomic Spectroscopy</i> , 2010, 65, 279-286.	1.5	11
85	Risk assessment of trace elements in sediments: The case of the estuary of the Nerbioi-Ibaizabal River (Basque Country). <i>Journal of Hazardous Materials</i> , 2010, 181, 565-573.	6.5	64
86	Preparation of a reference mussel tissue material for polycyclic aromatic hydrocarbons and trace metals determination. <i>Analytica Chimica Acta</i> , 2010, 675, 91-96.	2.6	6
87	Trace Metals in Oysters, <i>Crassostrea</i> spp., from UNESCO Protected Natural Reserve of Urdaibai: Space-Time Observations and Source Identification. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2009, 83, 223-229.	1.3	19
88	Development of a focused ultrasonic-assisted extraction of polycyclic aromatic hydrocarbons in marine sediment and mussel samples. <i>Analytica Chimica Acta</i> , 2009, 648, 178-182.	2.6	58
89	Calcium inhibits diacylglycerol uptake by serum albumin. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2009, 1788, 701-707.	1.4	3
90	Ultrasound energy focused in a glass probe: An approach to the simultaneous and fast extraction of trace elements from sediments. <i>Talanta</i> , 2009, 80, 434-439.	2.9	44

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91	Analytical diagnosis methodology to evaluate nitrate impact on historical building materials. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 1361-1370.	1.9	62
92	Multielement μ -ED-XRF analysis of vertebrate fossil bones. <i>X-Ray Spectrometry</i> , 2008, 37, 293-297.	0.9	16
93	Raman spectroscopy speciation of natural and anthropogenic solid phases in river and estuarine sediments with appreciable amount of clay and organic matter. <i>Journal of Raman Spectroscopy</i> , 2008, 39, 1195-1203.	1.2	28
94	Evaluation of the physiologically based extraction test as an indicator of metal toxicity in mussel tissue. <i>Analytica Chimica Acta</i> , 2008, 622, 126-132.	2.6	27
95	Multisimplex Optimisation of the Purge-and-Trap Preconcentration of Volatile Fatty Acids, Phenols and Indoles in Cow Slurries. <i>Chromatographia</i> , 2008, 67, 93-99.	0.7	4
96	Monitoring trace elements (Al, As, Cr, Cu, Fe, Mn, Ni and Zn) in deep and surface waters of the estuary of the Nerbioi-Ibaizabal River (Bay of Biscay, Basque Country). <i>Journal of Marine Systems</i> , 2008, 72, 332-341.	0.9	33
97	Headspace solid-phase microextraction preconcentration of phenols, indoles and on-fibre derivatised volatile fatty acids in liquid and gas samples from cow slurries. <i>Journal of Separation Science</i> , 2007, 30, 2293-2304.	1.3	17
98	Optimisation of the on-fibre derivatisation of volatile fatty acids in the simultaneous determination together with phenols and indoles in cow slurries. <i>Analytical and Bioanalytical Chemistry</i> , 2007, 389, 1603-1609.	1.9	11
99	Selenium in electrolytic manganese as a reference material for the quality control of aluminium melts. <i>Accreditation and Quality Assurance</i> , 2007, 12, 575-580.	0.4	4
100	Optimisation of microwave assisted digestion of sediments and determination of Sn and Hg. <i>Analytica Chimica Acta</i> , 2006, 566, 37-44.	2.6	30
101	Comparison of solid phase extraction, saponification and gel permeation chromatography for the clean-up of microwave-assisted biological extracts in the analysis of polycyclic aromatic hydrocarbons. <i>Journal of Chromatography A</i> , 2006, 1128, 10-16.	1.8	68
102	Experimental design to optimise the analysis of organic volatile compounds in cow slurry by headspace solid-phase microextraction-gas chromatography-mass spectrometry. <i>Journal of Chromatography A</i> , 2006, 1136, 1-9.	1.8	26
103	Chromium powder as a reference material for the quality control of particle-size measurement by laser diffraction. <i>Powder Technology</i> , 2005, 155, 85-91.	2.1	3
104	Emerging needs for sustained production of laboratory reference materials. <i>TrAC - Trends in Analytical Chemistry</i> , 2004, 23, 80-85.	5.8	26
105	Analysis of heavy metal distribution in superficial estuarine sediments (estuary of Bilbao, Basque) Tj ETQq1 1 0.784314 rgBT /Overlock 1 4.2 64	0.7	5
106	Bronze analysis by k α -NAA and PIXE. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2003, 257, 603-608.	0.7	5
107	Preparation and characterization of an exhausted electrowinning electrolyte reference material. <i>European Physical Journal Special Topics</i> , 2003, 107, 53-56.	0.2	1
108	Target preparation and neutron activation analysis: a successful story at IRMM. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2002, 480, 128-132.	0.7	4

