Gorka Arana

List of Publications by Year in descending order

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CODKA ΔΡΑΝΑ

#	Article	IF	CITATIONS
1	The SuperCam Instrument Suite on the NASA Mars 2020 Rover: Body Unit and Combined System Tests. Space Science Reviews, 2021, 217, 4.	3.7	160
2	The SuperCam Instrument Suite on the Mars 2020 Rover: Science Objectives and Mast-Unit Description. Space Science Reviews, 2021, 217, 1.	3.7	131
3	Fate of hazardous elements in agricultural soils surrounding a coal power plant complex from Santa Catarina (Brazil). Science of the Total Environment, 2015, 508, 374-382.	3.9	91
4	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. Journal of Chromatography A, 2006, 1128, 10-16.	1.8	68
5	Photogeologic Map of the Perseverance Rover Field Site in Jezero Crater Constructed by the Mars 2020 Science Team. Space Science Reviews, 2020, 216, 1.	3.7	67
6	Diagnosing the traffic impact on roadside soils through a multianalytical data analysis of the concentration profiles of traffic-related elements. Science of the Total Environment, 2013, 458-460, 427-434.	3.9	66
7	Analysis of heavy metal distribution in superficial estuarine sediments (estuary of Bilbao, Basque) Tj ETQq1 1	0.784314 rgB 4.2	T /Overlock 64
8	Risk assessment of trace elements in sediments: The case of the estuary of the Nerbioi–Ibaizabal River (Basque Country). Journal of Hazardous Materials, 2010, 181, 565-573.	6.5	64
9	Analytical diagnosis methodology to evaluate nitrate impact on historical building materials. Analytical and Bioanalytical Chemistry, 2008, 391, 1361-1370.	1.9	62
10	Development of a focused ultrasonic-assisted extraction of polycyclic aromatic hydrocarbons in marine sediment and mussel samples. Analytica Chimica Acta, 2009, 648, 178-182.	2.6	58
11	Evidence of mercury sequestration by carbon nanotubes and nanominerals present in agricultural soils from a coal fired power plant exhaust. Journal of Hazardous Materials, 2019, 378, 120747.	6.5	57
12	The mobilization of hazardous elements after a tropical storm event in a polluted estuary. Science of the Total Environment, 2016, 565, 721-729.	3.9	56
13	Inâ€situ spectroscopic assessment of the conservation state of building materials from a Palace house affected by infiltration water. Journal of Raman Spectroscopy, 2013, 44, 1277-1284.	1.2	47
14	Ultrasound energy focused in a glass probe: An approach to the simultaneous and fast extraction of trace elements from sediments. Talanta, 2009, 80, 434-439.	2.9	44
15	Applicability of a Diffuse Reflectance Infrared Fourier Transform handheld spectrometer to perform in situ analyses on Cultural Heritage materials. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 129, 259-267.	2.0	44
16	SuperCam Calibration Targets: Design and Development. Space Science Reviews, 2020, 216, 138.	3.7	44
17	Post-landing major element quantification using SuperCam laser induced breakdown spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106347.	1.5	40
18	Occurrence and Distribution of Metals in Mussels from the Cantabrian Coast. Archives of Environmental Contamination and Toxicology, 2010, 59, 235-243.	2.1	38

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19	Uncertainty Budget for k0-NAA. Journal of Radioanalytical and Nuclear Chemistry, 2000, 245, 195-197.	0.7	33
20	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). Journal of Marine Systems, 2008, 72, 332-341.	0.9	33
21	Diffuse reflectance FTIR database for the interpretation of the spectra obtained with a handheld device on built heritage materials. Analytical Methods, 2015, 7, 1061-1070.	1.3	33
22	In-situ analytical study of bricks exposed to marine environment using hand-held X-ray fluorescence spectrometry and related laboratory techniques. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2018, 146, 28-35.	1.5	32
23	Spectroscopic evaluation of the environmental impact on black crusted modern mortars in urban–industrial areas. Analytical and Bioanalytical Chemistry, 2011, 399, 2949-2959.	1.9	31
24	Optimisation of microwave assisted digestion of sediments and determination of Sn and Hg. Analytica Chimica Acta, 2006, 566, 37-44.	2.6	30
25	Portable and Raman imaging usefulness to detect decaying on mortars from Punta Begoña Galleries (Getxo, North of Spain). Journal of Raman Spectroscopy, 2016, 47, 1458-1466.	1.2	30
26	In situ recording of Mars soundscape. Nature, 2022, 605, 653-658.	13.7	30
27	Methodology to assess the mobility of trace elements between water and contaminated estuarine sediments as a function of the site physico-chemical characteristics. Science of the Total Environment, 2014, 473-474, 359-371.	3.9	29
28	Raman spectroscopy speciation of natural and anthropogenic solid phases in river and estuarine sediments with appreciable amount of clay and organic matter. Journal of Raman Spectroscopy, 2008, 39, 1195-1203.	1.2	28
29	Evaluation of the physiologically based extraction test as an indicator of metal toxicity in mussel tissue. Analytica Chimica Acta, 2008, 622, 126-132.	2.6	27
30	Emerging needs for sustained production of laboratory reference materials. TrAC - Trends in Analytical Chemistry, 2004, 23, 80-85.	5.8	26
31	Experimental design to optimise the analysis of organic volatile compounds in cow slurry by headspace solid-phase microextraction–gas chromatography–mass spectrometry. Journal of Chromatography A, 2006, 1136, 1-9.	1.8	26
32	A new index to sort estuarine sediments according to their contaminant content. Ecological Indicators, 2014, 45, 364-370.	2.6	26
33	In situ DRIFT, Raman, and XRF implementation in a multianalytical methodology to diagnose the impact suffered by built heritage in urban atmospheres. Analytical and Bioanalytical Chemistry, 2015, 407, 5635-5647.	1.9	26
34	The Raman spectra of the Na ₂ SO ₄ â€K ₂ SO ₄ system: Applicability to soluble salts studies in built heritage. Journal of Raman Spectroscopy, 2019, 50, 175-183.	1.2	24
35	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. Atmospheric Environment, 2017, 167, 542-552.	1.9	22
36	Micro-Raman and SEM-EDS analyses to evaluate the nature of salt clusters present in secondary marine aerosol. Science of the Total Environment, 2018, 615, 691-697.	3.9	21

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37	SuperCam calibration targets on board the perseverance rover: Fabrication and quantitative characterization. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2022, 188, 106341.	1.5	20
38	Trace Metals in Oysters, Crassotrea sps., from UNESCO Protected Natural Reserve of Urdaibai: Space-Time Observations and Source Identification. Bulletin of Environmental Contamination and Toxicology, 2009, 83, 223-229.	1.3	19
39	Accuracy and precision of loss-free counting in Î ³ -ray spectrometry. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 422, 388-394.	0.7	18
40	Raman spectroscopy assisted with XRF and chemical simulation to assess the synergic impacts of guardrails and traffic pollutants on urban soils. Journal of Raman Spectroscopy, 2012, 43, 1498-1503.	1.2	18
41	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 (Solanum lycopersicum) as a case study. Microchemical Journal, 2017, 134, 284-288.	2.3	18
42	Overview of the techniques used for the study of non-terrestrial bodies: Proposition of novel non-destructive methodology. TrAC - Trends in Analytical Chemistry, 2018, 98, 36-46.	5.8	18
43	Deciphering past and present atmospheric metal pollution of urban environments: The role of black crusts formed on historical constructions. Journal of Cleaner Production, 2020, 243, 118594.	4.6	18
44	Headspaceâ€solidâ€phase microextraction preconcentration of phenols, indoles and onâ€fibre derivatised volatile fatty acids in liquid and gas samples from cow slurries. Journal of Separation Science, 2007, 30, 2293-2304.	1.3	17
45	Bioimpact on weathering steel surfaces: Oxalates formation and the elucidation of their origin. International Biodeterioration and Biodegradation, 2015, 104, 59-66.	1.9	17
46	Development of a cost effective passive sampler to quantify the particulate matter depositions on building materials over time. Journal of Cleaner Production, 2020, 268, 122134.	4.6	17
47	Hydrolysis of Nb(V) and Ta(V) in aqueous KCl at 25�2C. Part II: Construction of a thermodynamic model for Ta(V). Journal of Solution Chemistry, 1995, 24, 611-622.	0.6	16
48	Multielement µ-ED-XRF analysis of vertebrate fossil bones. X-Ray Spectrometry, 2008, 37, 293-297.	0.9	16
49	Determination of the pigments present in a wallpaper of the middle nineteenth century: The combination of mid-diffuse reflectance and far infrared spectroscopies. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 124, 308-314.	2.0	16
50	Spatial distribution of some trace and major elements in sediments of the Cávado estuary (Esposende,) Tj ETQ)q0	T /Qverlock 1
51	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). Chemosphere, 2011, 85, 1347-1352.	4.2	15
52	Long-term monitoring of metal pollution in sediments from the estuary of the Nerbioi-Ibaizabal River (2005–2010). Estuarine, Coastal and Shelf Science, 2013, 131, 129-139.	0.9	14
53	Analytical study to evaluate the origin and severity of damage caused by salt weathering in a historical Palace House: the attack of infiltration water. Analytical Methods, 2015, 7, 4608-4615.	1.3	14
54	Occurrence and geographical distribution of metals and metalloids in sediments of the	0.9	14

Nerbioi-Ibaizabal estuary (Bilbao, Basque Country). Marine Chemistry, 2016, 185, 82-90.	
	Nerbioi-Ibaizabal estuary (Bilbao, Basque Country). Marine Chemistry, 2016, 185, 82-90.

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55	Sample pretreatment to differentiate between bioconcentration and atmospheric deposition of polycyclic aromatic hydrocarbons in mosses. Chemosphere, 2015, 122, 295-300.	4.2	13
56	Uptake and Distribution of Trace Elements in Dominant Mangrove Plants of the Indian Sundarban Wetland. Bulletin of Environmental Contamination and Toxicology, 2016, 97, 721-727.	1.3	13
57	The problem of sampling on built heritage: a preliminary study of a new non-invasive method. Environmental Science and Pollution Research, 2014, 21, 12518-12529.	2.7	12
58	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). Marine Pollution Bulletin, 2019, 145, 555-563.	2.3	12
59	Optimisation of the on-fibre derivatisation of volatile fatty acids in the simultaneous determination together with phenols and indoles in cow slurries. Analytical and Bioanalytical Chemistry, 2007, 389, 1603-1609.	1.9	11
60	Classification of archaeological pieces into their respective stratum by a chemometric model based on the soil concentration of 25 selected elements. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 279-286.	1.5	11
61	The combination of Raman imaging and LIBS for quantification of original and degradation materials in Cultural Heritage. Journal of Raman Spectroscopy, 2019, 50, 193-201.	1.2	11
62	Is there a direct relationship between stress biomarkers in oysters and the amount of metals in the sediments where they inhabit?. Marine Pollution Bulletin, 2016, 111, 95-105.	2.3	10
63	An archaeometric approach to the majolica pottery from alcazar of NÃijera archaeological site. Heritage Science, 2019, 7, .	1.0	10
64	Non-destructive screening methodology based on ED-XRF for the classification of medieval and post-medieval archaeological ceramics. Ceramics International, 2019, 45, 10672-10683.	2.3	10
65	Portable Raman can be the new hammer for architects restoring 20thâ€century built heritage elements made of reinforced concrete. Journal of Raman Spectroscopy, 2021, 52, 109-122.	1.2	10
66	Understanding the degradation of the blue colour in the wall paintings of Ariadne's house (Pompeii,) Tj ETQq0 0	0 rgBT /O	verlock 10 Tf
67	Development of innovative non-destructive analytical strategies for Mars Sample Return tested on Dar al Gani 735 Martian Meteorite. Talanta, 2021, 224, 121863.	2.9	9
68	Reviewing in situ analytical techniques used to research Martian geochemistry: From the Viking Project to the MMX future mission. Analytica Chimica Acta, 2022, 1197, 339499.	2.6	9
69	Homogeneity assessment of the SuperCam calibration targets onboard rover perseverance. Analytica Chimica Acta, 2022, 1209, 339837.	2.6	9
70	Interrelationships in the Gypsum–Syngenite–Görgeyite System and Their Possible Formation on Mars. Astrobiology, 2021, 21, 332-344.	1.5	8
71	Ionogel-based hybrid polymer-paper handheld platform for nitrite and nitrate determination in water samples. Analytica Chimica Acta, 2022, 1205, 339753.	2.6	8
72	Is It Safe to Use Poisson Statistics in Nuclear Spectrometry?. Journal of Radioanalytical and Nuclear Chemistry, 2000, 244, 501-506.	0.7	7

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73	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. Analytical and Bioanalytical Chemistry, 2018, 410, 7477-7488.	1.9	7
74	New Raman–visible nearâ€infrared database of inorganic and mineralogical planetary and terrestrial compounds and its implications for Mars: Phyllosilicates. Journal of Raman Spectroscopy, 2020, 51, 1750-1760.	1.2	7
75	Hit and sunk: provenance and alterations of ceramics from seventeenth century Angra D shipwreck. Archaeological and Anthropological Sciences, 2020, 12, 1.	0.7	7
76	Geochemical Characterization of the NWA 11273 Lunar Meteorite Using Nondestructive Analytical Techniques: Original, Shocked, and Alteration Mineral Phases. ACS Earth and Space Chemistry, 2021, 5, 1333-1342.	1.2	7
77	Detection of unexpected copper sulfate decay compounds on late Gothic mural paintings: Assessing the threat of environmental impact. Microchemical Journal, 2021, 169, 106542.	2.3	7
78	Improvement of Oil Valorization Extracted from Fish By-Products Using a Handheld near Infrared Spectrometer Coupled with Chemometrics. Foods, 2022, 11, 1092.	1.9	7
79	The effect of the nature of the polymer backbone on the stability and the analytical response of polymer-modified electrodes. Electroanalysis, 1995, 7, 333-339.	1.5	6
80	The electrodeposition of targets for (n,α) studies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 438, 36-39.	0.7	6
81	Permeation of Mixtures of Four Phenols through a Supported Liquid Membrane in NaCl 1.0 mol·dmâ^'3Medium. Separation Science and Technology, 1999, 34, 665-681.	1.3	6
82	Determination of ion exchange equilibrium constants of strongly acidic resins with alkaline-earth metals by means of the potentiometric titrations technique. Talanta, 1999, 48, 91-102.	2.9	6
83	Preparation of a reference mussel tissue material for polycyclic aromatic hydrocarbons and trace metals determination. Analytica Chimica Acta, 2010, 675, 91-96.	2.6	6
84	Spectroscopic characterization of xx century mural paintings of punta begoña's galleries under conservation works. Microchemical Journal, 2021, 168, 106423.	2.3	6
85	Potentiometric determination of the protonation constants of some phenols in 1.0 mol/L NaCl at 25�C. Fresenius' Journal of Analytical Chemistry, 1994, 349, 703-707.	1.5	5
86	Potentiometric study of the protonation and distribution equilibria of 2-chlorophenol in NaCl medium at 25 °C. Construction of a thermodynamic model. Talanta, 1996, 43, 11-20.	2.9	5
87	Bronze analysis by kO-NAA and PIXE. Journal of Radioanalytical and Nuclear Chemistry, 2003, 257, 603-608.	0.7	5
88	Ultrasound assisted dialysis of semi-permeable membrane devices for the simultaneous analysis of a wide number of persistent organic pollutants. Talanta, 2013, 114, 32-37.	2.9	5
89	Pottery from Orduña Village in the 17th–19th centuries: An archaeometrical approach. Journal of Archaeological Science: Reports, 2019, 23, 304-323.	0.2	5
90	Study of a terrestrial Martian analogue: Geochemical characterization of the Meñakoz outcrops (Biscay, Spain). Journal of Raman Spectroscopy, 2020, 51, 1603-1612.	1.2	5

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91	Development of a novel method for the in-situ dechlorination of immovable iron elements: optimization of Clâ^' extraction yield through experimental design. Scientific Reports, 2021, 11, 10789.	1.6	5
92	THE USE OF SPMDs AND IMPLANTED OYSTERS FOR MONITORING PAHs AND PCBs IN AN AQUATIC ENVIRONMENT IN THE ESTUARY OF URDAIBAI (WESTERN PYRENEES). Environmental Engineering and Management Journal, 2012, 11, 1707-1714.	0.2	5
93	Mineralogy of the RBT 04262 Martian meteorite as determined by microâ€Raman and microâ€Xâ€ray fluorescence spectroscopies. Journal of Raman Spectroscopy, 2022, 53, 450-462.	1.2	5
94	Target preparation and neutron activation analysis: a successful story at IRMM. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2002, 480, 128-132.	0.7	4
95	Selenium in electrolytic manganese as a reference material for the quality control of aluminium melts. Accreditation and Quality Assurance, 2007, 12, 575-580.	0.4	4
96	Multisimplex Optimisation of the Purge-and-Trap Preconcentration of Volatile Fatty Acids, Phenols and Indoles in Cow Slurries. Chromatographia, 2008, 67, 93-99.	0.7	4
97	A chemical status predictor. A methodology based on World-Wide sediment samples. Journal of Environmental Management, 2015, 161, 21-29.	3.8	4
98	Chapter 6. Use of Raman spectroscopy and scanning electron microscopy for the detection and analysis of road transport pollution. Spectroscopic Properties of Inorganic and Organometallic Compounds, 2014, , 178-210.	0.4	4
99	Original and alteration mineral phases in the NWA 10628 Martian shergottite determined by microâ€Raman spectroscopy assisted with microâ€energy dispersive Xâ€ray fluorescence imaging. Journal of Raman Spectroscopy, 0, , .	1.2	4
100	On-Line Multicomponent Determination of the Flux of Mixtures of Phenols Through a Liquid Membrane in Real Time. Mikrochimica Acta, 2001, 136, 15-21.	2.5	3
101	Chromium powder as a reference material for the quality control of particle-size measurement by laser diffraction. Powder Technology, 2005, 155, 85-91.	2.1	3
102	Calcium inhibits diacylglycerol uptake by serum albumin. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 701-707.	1.4	3
103	lonogel-based Nitrite and Nitrate Sensor for Water Control at the Point-of-Need. Procedia Engineering, 2016, 168, 518-521.	1.2	3
104	Enhancement and recovery of the tiles affected by atmospheric pollutants in the Galleries of Punta Begoña, Getxo (Bizkaia). Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2019, 58, 161-170.	0.9	3
105	Submerged and reused: An archaeometric approach to the early Modern ceramics from Aveiro (Portugal). Journal of Archaeological Science: Reports, 2020, 34, 102648.	0.2	3
106	Characterization of sedimentary and volcanic rocks in Armintza outcrop (Biscay, Spain) and its implication for Oxia Planum (Mars) exploration. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 251, 119443.	2.0	3
107	The potential of in situ Raman spectroscopy in the study of the health of cementâ€based materials of modern buildings during restoration works. Journal of Raman Spectroscopy, 2021, 52, 1868-1877.	1.2	3
108	A Rapid Routine Methodology Based on Chemometrics to Evaluate the Toxicity of Commercial Infant Milks Due to Hazardous Elements. Food Analytical Methods, 0, , 1.	1.3	3

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109	Potentiometric study of the distribution equilibria of phenols between 1.0 moldm?3 NaCl and organic solvents at 25 �C. Mikrochimica Acta, 1994, 117, 31-38.	2.5	2
110	Modern Era pottery from the archaeological site at the Ethnographic Museum of Zamora (north-western Spain): An archaeometric analysis. Journal of Archaeological Science: Reports, 2020, 33, 102514.	0.2	2
111	Spectroscopic-assisted archaeometric studies to determine the production technology of the VI BC Zeus Enthroned statue (Paestum, Italy) and Pre-Roman technology transfer. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 249, 119294.	2.0	2
112	Alterations and Contaminations in Ceramics Deposited in Underwater Environments: An Experimental Approach. Minerals (Basel, Switzerland), 2021, 11, 766.	0.8	2
113	Traffic related metal distribution profiles and their impact on urban soils. Alliance for Global Sustainability Bookseries, 2012, , 383-392.	0.2	2
114	Analytical Techniques Applied to the Study of Industrial Archaeology Heritage: The Case of Plaiko Zubixe Footbridge. Molecules, 2022, 27, 3609.	1.7	2
115	Preparation and characterization of "exhausted electrowinning electrolyte―reference material. European Physical Journal Special Topics, 2003, 107, 53-56.	0.2	1
116	Ionogel-based nitrate sensor device. , 2016, , .		1
117	The supply of ceramics to Portuguese North African strongholds in the 15th and 16th centuries: New archaeometric data from Ksar Seghir and Ceuta. Journal of Archaeological Science: Reports, 2021, 37, 102908.	0.2	1
118	Non-Destructive Analytical Investigation of Decorative Wallpapers Samples of the Nineteenth Century before Their Restoration. Sensors, 2021, 21, 4416.	2.1	1
119	Graffiti Characterization Prior to Intervention in the Punta Begoña Galleries (Getxo, North of Spain): Raman and XRF Spectroscopy in the Service of Restoration. Applied Sciences (Switzerland), 2021, 11, 8640.	1.3	1
120	Raman study of the ageing test of natural hydraulic lime under the influence of industrial port activities. Journal of Raman Spectroscopy, 2022, 53, 608-616.	1.2	1
121	Pottery making tradition in Logroño: an archaeometric approach to the Late Medieval workshops. Archaeological and Anthropological Sciences, 2021, 13, 1.	0.7	0
122	Zamorako zeramiken beiratua egiteko zeramikariek erabilitako galenaren jatorrizko meatzearen identifikazioa, berun isotopoen analisiaren bidez. , 0, , .		0
123	Assessment of hazardous compounds in building materials accumulated by the action of the atmospheric pollution. , 2022, , 11-31.		0