Kepa Castro

List of Publications by Year
in descending order

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Version: 2024-02-01

109 papers	3,291 citations	117625 34 h-index	175258 52 g-index
111 all docs	111 docs citations	111 times ranked	2670 citing authors

#	Article	IF	Citations
1	GeoRaman. Journal of Raman Spectroscopy, 2022, 53, 333-339.	2.5	1
2	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.	2.5	5
3	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.	2.5	1
4	Analytical Techniques Applied to the Study of Industrial Archaeology Heritage: The Case of Plaiko Zubixe Footbridge. Molecules, 2022, 27, 3609.	3.8	2
5	Understanding the degradation of the blue colour in the wall paintings of Ariadne's house (Pompeii,) Tj ETQq1 1 0.784314 rgBT /Over	2.5	9
6	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.	3.9	2
7	Interrelationships in the Gypsumâ€“Syngeniteâ€“GÃ¶rgeyite System and Their Possible Formation on Mars. Astrobiology, 2021, 21, 332-344.	3.0	8
8	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.	3.3	5
9	Non-Destructive Analytical Investigation of Decorative Wallpapers Samples of the Nineteenth Century before Their Restoration. Sensors, 2021, 21, 4416.	3.8	1
10	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.	2.5	3
11	Identification and characterization of basic copper sulfates as mineral green pigments in Andean colonial mural paintings: Use of temperatureâ€controlled stage for the study of thermal induced antlerite degradation. Journal of Raman Spectroscopy, 2021, 52, 2204-2217.	2.5	4
12	Spectroscopic characterization of xx century mural paintings of punta begoÃ±aâ€™s galleries under conservation works. Microchemical Journal, 2021, 168, 106423.	4.5	6
13	Detection of unexpected copper sulfate decay compounds on late Gothic mural paintings: Assessing the threat of environmental impact. Microchemical Journal, 2021, 169, 106542.	4.5	7
14	Study of a terrestrial Martian analogue: Geochemical characterization of the MeÃ±akoz outcrops (Biscay, Spain). Journal of Raman Spectroscopy, 2020, 51, 1603-1612.	2.5	5
15	New Ramanâ€“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.	2.5	7
16	Hit and sunk: provenance and alterations of ceramics from seventeenth century Angra D shipwreck. Archaeological and Anthropological Sciences, 2020, 12, 1.	1.8	7
17	Use of Temperature Controlled Stage Confocal Raman Microscopy to Study Phase Transition of Lead Dioxide (Plattnerite). Minerals (Basel, Switzerland), 2020, 10, 468.	2.0	9
18	ExoMars Raman Laser Spectrometer: A Tool for the Potential Recognition of Wet-Target Craters on Mars. Astrobiology, 2020, 20, 349-363.	3.0	17

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19	Darkening of leadâ€•and ironâ€based pigments on late Gothic Italian wall paintings: Energy dispersive Xâ€ray fluorescence, Î¼â€Raman, and powder Xâ€ray diffraction analyses for diagnosis: Presence of Î²â€PbO₂ (plattnerite) and Î±â€PbO₂ (scrutinyite). Journal of Raman Spectroscopy, 2020, 51, 680-692.	2.5	21
20	Wine markers in archeological potteries: detection by GC-MS at ultratrace levels. Analytical and Bioanalytical Chemistry, 2019, 411, 6711-6722.	3.7	10
21	Spectroscopic study of olivine-bearing rocks and its relevance to the ExoMars rover mission. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2019, 223, 117360.	3.9	14
22	Analytical methodology to evaluate the Terrestrial Weathering of Libyan Desert Glasses and Darwin Glasses after their formation. Analytical and Bioanalytical Chemistry, 2019, 411, 7869-7877.	3.7	0
23	The Raman spectra of the Na₂SO₄â€K₂SO₄ system: Applicability to soluble salts studies in built heritage. Journal of Raman Spectroscopy, 2019, 50, 175-183.	2.5	24
24	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.	2.5	11
25	FTIR spectroscopic semi-quantification of iron phases: A new method to evaluate the protection ability index (PAI) of archaeological artefacts corrosion systems. Corrosion Science, 2018, 133, 68-77.	6.6	86
26	Study of the soluble salts formation in a recently restored house of Pompeii by in-situ Raman spectroscopy. Scientific Reports, 2018, 8, 1613.	3.3	27
27	The green grass was never green: How spectroscopic techniques should have assisted restoration works. Microchemical Journal, 2018, 138, 154-161.	4.5	8
28	Evaluating the exploitability of several essential oils constituents as a novel biological treatment against cultural heritage biocolonization. Microchemical Journal, 2018, 138, 1-6.	4.5	35
29	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.	11.4	18
30	GCâ€“MS and HPLC-ESI-QToF characterization of organic lipid residues from ceramic vessels used by Basque whalers from 16th to 17th centuries. Microchemical Journal, 2018, 137, 190-203.	4.5	38
31	Formation and characterization of zein-caseinate-pectin complex nanoparticles for encapsulation of eugenol. LWT - Food Science and Technology, 2018, 89, 596-603.	5.2	104
32	In-situ multi-analytical characterization of original and decay materials from unique wall mirrors in the House of Gilded Cupids, Pompeii. Heritage Science, 2018, 6, .	2.3	14
33	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.	3.7	7
34	Portable and laboratory analytical instruments for the study of materials, techniques and environmental impacts in mediaeval mural paintings. Analytical Methods, 2018, 10, 4854-4870.	2.7	19
35	Mixed-mode SPE followed by GC-MS analysis to determine water soluble organic compounds in aerosol and historical mortars affected by marine atmosphere: The case of Punta BegoÃ±a Galleries (Getxo, North of Spain). Talanta, 2018, 189, 31-38.	5.5	8
36	Detection of organic compounds in impact glasses formed by the collision of an extraterrestrial material with the Libyan Desert (Africa) and Tasmania (Australia). Analytical and Bioanalytical Chemistry, 2018, 410, 6609-6617.	3.7	2

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37	In-situ multianalytical approach to analyze and compare the degradation pathways jeopardizing two murals exposed to different environments (Ariadne House, Pompeii, Italy). Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2018, 203, 201-209.	3.9	20
38	Non-destructive study of the degradation processes in underwater metallic materials. , 2018, , 319-321.		2
39	In situ X-ray fluorescence-based method to differentiate among red ochre pigments and yellow ochre pigments thermally transformed to red pigments of wall paintings from Pompeii. Analytical and Bioanalytical Chemistry, 2017, 409, 3853-3860.	3.7	29
40	Geochemical study of the <scp>N</scp>orthwest <scp>A</scp>frica 6148 <scp>M</scp>artian meteorite and its terrestrial weathering processes. Journal of Raman Spectroscopy, 2017, 48, 1536-1543.	2.5	14
41	Comparison between non-invasive methods used on paintings by Goya and his contemporaries: hyperspectral imaging vs. point-by-point spectroscopic analysis. Analytical and Bioanalytical Chemistry, 2017, 409, 4047-4056.	3.7	11
42	Biodeterioration of Pompeian mural paintings: fungal colonization favoured by the presence of volcanic material residues. Environmental Science and Pollution Research, 2017, 24, 19599-19608.	5.3	25
43	Multispectroscopic methodology to study Libyan desert glass and its formation conditions. Analytical and Bioanalytical Chemistry, 2017, 409, 3597-3610.	3.7	15
44	Characterization of archaeometallurgical artefacts by means of portable Raman systems: corrosion mechanisms influenced by marine aerosol. Journal of Raman Spectroscopy, 2017, 48, 258-266.	2.5	13
45	Raman and SEMâ€EDX analyses of the â€˜Royal Portalâ€™ of Bordeaux Cathedral for the virtual restitution of the statuary polychromy. Journal of Raman Spectroscopy, 2016, 47, 162-167.	2.5	16
46	Multispectroscopic and Isotopic Ratio Analysis To Characterize the Inorganic Binder Used on Pompeian Pink and Purple Lake Pigments. Analytical Chemistry, 2016, 88, 6395-6402.	6.5	23
47	An alternative analytical method based on ultrasound micro bath hydrolysis and GC-MS analysis for the characterization of organic biomarkers in archaeological ceramics. Analytical and Bioanalytical Chemistry, 2016, 408, 8001-8012.	3.7	5
48	Comparison of semiquantification experimental methodologies using microâ€Raman spectroscopy: <scp>palme</scp> software as an alternative tool for the study of salt efflorescence. Journal of Raman Spectroscopy, 2016, 47, 1415-1421.	2.5	8
49	Study of corrosion in archaeological gilded irons by Raman imaging and a coupled scanning electron microscopeâ€“Raman system. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20160046.	3.4	6
50	Spectroscopic analysis used to uncover the original paint colour of the Helsinki Government Palace tower clock faces. Heritage Science, 2016, 4, .	2.3	5
51	Hyperspectral imaging applied to the analysis of Goya paintings in the Museum of Zaragoza (Spain). Microchemical Journal, 2016, 126, 113-120.	4.5	75
52	Portable Raman, DRIFTS, and XRF Analysis to Diagnose the Conservation State of Two Wall Painting Panels from Pompeii Deposited in the Naples National Archaeological Museum (Italy). Applied Spectroscopy, 2016, 70, 137-146.	2.2	39
53	Darwin impact glass study by Raman spectroscopy in combination with other spectroscopic techniques. Journal of Raman Spectroscopy, 2015, 46, 913-919.	2.5	14
54	Focused ultrasound solidâ€“liquid extraction for the determination of organic biomarkers in beachrocks. Ultrasonics Sonochemistry, 2015, 27, 430-439.	8.2	12

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55	Bioimpact on weathering steel surfaces: Oxalates formation and the elucidation of their origin. International Biodeterioration and Biodegradation, 2015, 104, 59-66.	3.9	17
56	Structural and chemical analyzer system for the analysis of deposited airborne particles and degradation compounds present on the surface of outdoor weathering steel objects. Microchemical Journal, 2015, 123, 267-275.	4.5	15
57	Raman spectroscopic study of the degradation of a middle age mural painting: the role of agricultural activities. Journal of Raman Spectroscopy, 2014, 45, 1110-1118.	2.5	23
58	Inâ€situ and laboratory Raman analysis in the field of cultural heritage: the case of a mural painting. Journal of Raman Spectroscopy, 2014, 45, 228-237.	2.5	24
59	Multispectroscopic Characterization of Oil on Copper Painting. Spectroscopy Letters, 2014, 47, 38-51.	1.0	9
60	Multianalytical approach to explain the darkening process of hematite pigment in paintings from ancient Pompeii after accelerated weathering experiments. Analytical Methods, 2014, 6, 372-378.	2.7	29
61	Spectroscopic speciation and thermodynamic modeling to explain the degradation of weathering steel surfaces in SO2 rich urban atmospheres. Microchemical Journal, 2014, 115, 138-145.	4.5	26
62	Protective ability index measurement through Raman quantification imaging to diagnose the conservation state of weathering steel structures. Journal of Raman Spectroscopy, 2014, 45, 1076-1084.	2.5	55
63	In situ analysis with portable Raman and EDâ€XRF spectrometers for the diagnosis of the formation of efflorescence on walls and wall paintings of the Insula IX 3 (Pompeii, Italy). Journal of Raman Spectroscopy, 2014, 45, 1059-1067.	2.5	55
64	Study of environmental pollution and mineralogical characterization of sediment rivers from Brazilian coal mining acid drainage. Science of the Total Environment, 2013, 447, 169-178.	8.0	123
65	From Portable to SCA Raman devices to characterize harmful compounds contained in used black slag produced in Electric Arc Furnace of steel industry. Journal of Raman Spectroscopy, 2013, 44, 1163-1171.	2.5	22
66	Sourcing sedimentary cherts with archaeological use through the combination of chromatographic and spectroscopic techniques. Applied Geochemistry, 2013, 33, 252-259.	3.0	7
67	Finnish wallpaper pigments in the 18thâ€“19th century: Presence of KFe3(CrO4)2(OH)6 and odd pigment mixtures. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2013, 106, 104-109.	3.9	10
68	Non-invasive portable instrumentation to study Palaeolithic rock paintings: the case of La PeÃ±a Cave in San Roman de Candamo (Asturias, Spain). Journal of Archaeological Science, 2013, 40, 1354-1360.	2.4	69
69	Multianalytical approach to study the dissolution process of weathering steel: The role of urban pollution. Corrosion Science, 2013, 76, 154-162.	6.6	43
70	Raman analysis assessed by Fourierâ€Transformed infrared and Xâ€ray fluorescence spectroscopies: a multiâ€analytical approach of ancient chromolithographs from the 19th century. Journal of Raman Spectroscopy, 2012, 43, 411-418.	2.5	11
71	Portable Raman study on the conservation state of four CorTen steelâ€based sculptures by Eduardo Chillida impacted by urban atmospheres. Journal of Raman Spectroscopy, 2012, 43, 1111-1117.	2.5	45
72	In situ Raman spectroscopy analysis combined with Raman and SEMâ€EDS imaging to assess the conservation state of 16th century wall paintings. Journal of Raman Spectroscopy, 2012, 43, 1676-1684.	2.5	56

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73	Field Raman analysis to diagnose the conservation state of excavated walls and wall paintings in the archaeological site of Pompeii (Italy). Journal of Raman Spectroscopy, 2012, 43, 1747-1753.	2.5	68
74	Use of in situ and confocal Raman spectroscopy to study the nature and distribution of carotenoids in brown patinas from a deteriorated wall painting in Marcus Lucretius House (Pompeii). Analytical and Bioanalytical Chemistry, 2012, 402, 1529-1539.	3.7	53
75	Thermodynamic and Spectroscopic Speciation to Explain the Blackening Process of Hematite Formed by Atmospheric SO₂ Impact: The Case of Marcus Lucretius House (Pompeii). Analytical Chemistry, 2011, 83, 3319-3326.	6.5	31
76	New Findings by Raman Microspectroscopy in the Bulk and Inclusions Trapped in Libyan Desert Glass. Spectroscopy Letters, 2011, 44, 521-525.	1.0	7
77	Classification and identification of organic binding media in artworks by means of Fourier transform infrared spectroscopy and principal component analysis. Analytical and Bioanalytical Chemistry, 2011, 399, 3601-3611.	3.7	62
78	Are these liquids explosive? Forensic analysis of confiscated indoor fireworks. Analytical and Bioanalytical Chemistry, 2011, 400, 3065-3071.	3.7	8
79	Assessment of the weathering effects on cellulose based materials through a multianalytical approach. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1401-1410.	1.4	40
80	Analysis of confiscated fireworks using Raman spectroscopy assisted with SEMâ€EDS and FTIR. Journal of Raman Spectroscopy, 2011, 42, 2000-2005.	2.5	16
81	Portable Raman monitoring of modern cleaning and consolidation operations of artworks on mineral supports. Analytical and Bioanalytical Chemistry, 2010, 397, 2717-2725.	3.7	21
82	Raman spectroscopy as a tool to diagnose the impact and conservation state of Pompeian second and fourth style wall paintings exposed to diverse environments (House of Marcus Lucretius). Journal of Raman Spectroscopy, 2010, 41, 1400-1409.	2.5	80
83	On The Microâ€Phase Separation in Waterborne Polyurethanes. Macromolecular Chemistry and Physics, 2009, 210, 879-889.	2.2	48
84	Efficacy of waterborne polyurethane to prevent the enzymatic attack on paperâ€based materials. Journal of Applied Polymer Science, 2009, 113, 2030-2040.	2.6	8
85	Raman spectroscopy after accelerated ageing tests to assess the origin of some decayed products found in real historical bricks affected by urban polluted atmospheres. Analytical and Bioanalytical Chemistry, 2009, 395, 2119-2129.	3.7	24
86	Non-destructive spectrometry methods to study the distribution of archaeological and geological chert samples. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2009, 73, 492-497.	3.9	30
87	Analysis of a coloured Dutch map from the eighteenth century: The need for a multi-analytical spectroscopic approach using portable instrumentation. Analytica Chimica Acta, 2008, 623, 187-194.	5.4	47
88	Analytical diagnosis methodology to evaluate nitrate impact on historical building materials. Analytical and Bioanalytical Chemistry, 2008, 391, 1361-1370.	3.7	62
89	Noninvasive and nondestructive NMR, Raman and XRF analysis of a Blaeu coloured map from the seventeenth century. Analytical and Bioanalytical Chemistry, 2008, 391, 433-441.	3.7	60
90	Multianalytical approach to the analysis of English polychromed alabaster sculptures: Î¼Raman, Î¼EDXRF, and FTIR spectroscopies. Analytical and Bioanalytical Chemistry, 2008, 392, 755-763.	3.7	36

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91	Multielement Âµ-ED-XRF analysis of vertebrate fossil bones. X-Ray Spectrometry, 2008, 37, 293-297.	1.4	16
92	Raman spectroscopy as a tool to diagnose the impacts of combustion and greenhouse acid gases on properties of Built Heritage. Journal of Raman Spectroscopy, 2008, 39, 1042-1049.	2.5	57
93	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.	2.5	28
94	Scientific examination of classic Spanish stamps with colour error, a non-invasive micro-Raman and micro-XRF approach: The King Alfonso XIII (1889â€“1901 â€œPelÃ³nâ€) 15 cents definitive issue. Journal of Cultural Heritage, 2008, 9, 189-195.	3.3	22
95	Green Copper Pigments Biodegradation in Cultural Heritage: From Malachite to Moolooite, Thermodynamic Modeling, X-ray Fluorescence, and Raman Evidence. Analytical Chemistry, 2008, 80, 4103-4110.	6.5	83
96	Vibrational spectroscopy at the service of industrial archaeology: Nineteenth-century wallpaper. TrAC - Trends in Analytical Chemistry, 2007, 26, 347-359.	11.4	40
97	Comparative study of mobile Raman instrumentation for art analysis. Analytica Chimica Acta, 2007, 588, 108-116.	5.4	138
98	Non-invasive and non-destructive micro-XRF and micro-Raman analysis of a decorative wallpaper from the beginning of the 19th century. Analytical and Bioanalytical Chemistry, 2007, 387, 847-860.	3.7	55
99	Investigation of degradation mechanisms by portable Raman spectroscopy and thermodynamic speciation: The wall painting of Santa MarÃa de Lemoniz (Basque Country, North of Spain). Analytica Chimica Acta, 2006, 571, 121-128.	5.4	94
100	Vibrational Spectroscopic Techniques for the Analysis of Artefacts with Historical, Artistic and Archaeological Value. Current Analytical Chemistry, 2006, 2, 89-100.	1.2	42
101	Improvements in the wallpaper industry during the second half of the 19th century: Micro-Raman spectroscopy analysis of pigmented wallpapers. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 2357-2363.	3.9	27
102	On-line FT-Raman and dispersive Raman spectra database of artistsâ€™ materials (e-VISART database). Analytical and Bioanalytical Chemistry, 2005, 382, 248-258.	3.7	185
103	Analysis of bulk and inorganic degradation products of stones, mortars and wall paintings by portable Raman microprobe spectroscopy. Analytical and Bioanalytical Chemistry, 2004, 379, 42-50.	3.7	81
104	Micro-Raman analysis of coloured lithographs. Analytical and Bioanalytical Chemistry, 2004, 379, 674-83.	3.7	31
105	Raman fibre optic approach to artwork dating. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2919-2924.	3.9	30
106	Scientific analysis versus restorerâ€™s expertise for diagnosis prior to a restoration process: the case of Santa Maria Church (Hermo, Asturias, North of Spain). Analytica Chimica Acta, 2004, 524, 379-389.	5.4	55
107	Peer Reviewed: FTIR Spectra Database of Inorganic Art Materials. Analytical Chemistry, 2003, 75, 214 A-221 A.	6.5	46
108	Fourier transform Raman spectroscopic study of pigments present in decorative wallpapers of the middle nineteenth century from the Santa Isabel factory (Vitoria, Basque Country, Spain). Journal of Raman Spectroscopy, 2002, 33, 17-25.	2.5	40

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109	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, , .	2.5	4