

Edward P Vicenzi

List of Publications by Year in descending order

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125
papers

8,270
citations

76196

40
h-index

45213

90
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128
all docs

128
docs citations

128
times ranked

6871
citing authors

#	ARTICLE	IF	CITATIONS
1	Imaging Rough Paper to Evaluate Methods for Soot Removal. <i>Microscopy Today</i> , 2022, 30, 30-33.	0.2	3
2	Assessment of the reason for the vitrification of a wall at a hillfort. The example of Broborg in Sweden. <i>Journal of Archaeological Science: Reports</i> , 2022, 43, 103459.	0.2	1
3	Major to trace element imaging and analysis of iron age glasses using stage scanning in the analytical dual beam microscope (tandem). <i>Heritage Science</i> , 2022, 10, .	1.0	3
4	Reproduction of melting behavior for vitrified hillforts based on amphibolite, granite, and basalt lithologies. <i>Scientific Reports</i> , 2021, 11, 1272.	1.6	9
5	A dual beam SEM-based EDS and micro-XRF method for the analysis of large-scale Mesoamerican obsidian tablets. <i>Journal of Archaeological Science: Reports</i> , 2021, 35, 102781.	0.2	2
6	Hydration of Hydrophilic Cloth Face Masks Enhances the Filtration of Nanoparticles. <i>ACS Applied Nano Materials</i> , 2021, 4, 2694-2701.	2.4	27
7	Home- and Laboratory-based Microscopy of Face Covering Materials. <i>Microscopy and Microanalysis</i> , 2021, 27, 1292-1294.	0.2	1
8	Microanalysis of Glass Fluid Storage Vials from The Invertebrate Zoology Collection at the National Museum of Natural History. <i>Microscopy and Microanalysis</i> , 2021, 27, 3208-3210.	0.2	1
9	Elemental Mapping of Jade by pXRF and SEM-based Micro-XRF: A Comparative Study. <i>Microscopy and Microanalysis</i> , 2021, 27, 2556-2558.	0.2	0
10	An in-depth look at how physical properties of cleaning materials affect the removal of soot from rough papers. <i>Microscopy and Microanalysis</i> , 2021, 27, 2810-2812.	0.2	0
11	Quantitative Analysis of Obsidian and Determination of Source Provenance Using an Analytical Dual Beam SEM. <i>Microscopy and Microanalysis</i> , 2021, 27, 2560-2563.	0.2	1
12	Filter Inserts Impact Cloth Mask Performance against Nano- to Micro-Sized Particles. <i>ACS Nano</i> , 2021, 15, 12860-12868.	7.3	13
13	Nondestructive Microanalysis of Thin-Film Coatings on Historic Metal Threads. <i>Analytical Chemistry</i> , 2021, 93, 12906-12913.	3.2	1
14	Applying laboratory methods for durability assessment of vitrified material to archaeological samples. <i>Npj Materials Degradation</i> , 2021, 5, .	2.6	5
15	Seneca sandstone: a heritage stone from the USA. <i>Geological Society Special Publication</i> , 2020, 486, 163-176.	0.8	3
16	Filtration Efficiencies of Nanoscale Aerosol by Cloth Mask Materials Used to Slow the Spread of SARS-CoV-2. <i>ACS Nano</i> , 2020, 14, 9188-9200.	7.3	213
17	Nanoscale structure and compositional analysis of manganese oxide coatings on the Smithsonian Castle, Washington, DC. <i>Chemical Geology</i> , 2020, 537, 119486.	1.4	4
18	Nanoscale Analysis of Manganese Oxide Rock Varnish on the Smithsonian Castle, Washington, DC. <i>Microscopy and Microanalysis</i> , 2019, 25, 2440-2441.	0.2	0

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19	Examination of Heritage and Geological Materials Using Correlated Electron- and X-ray-Beam Microanalysis in the SEM. <i>Microscopy and Microanalysis</i> , 2019, 25, 2482-2483.	0.2	0
20	Pre-Viking Swedish hillfort glass: A prospective long-term alteration analogue for vitrified nuclear waste. <i>International Journal of Applied Glass Science</i> , 2018, 9, 540-554.	1.0	13
21	Harden up: metal acquisition in the weaponized ovipositors of aculeate hymenoptera. <i>Zoomorphology</i> , 2018, 137, 389-406.	0.4	9
22	Chemical Compound Classification by Elemental Signatures in Castle Dust Using SEM Automated X-ray Particle Analysis. <i>Microscopy and Microanalysis</i> , 2018, 24, 718-719.	0.2	2
23	EMAS 2017 Workshop - 15th European Workshop on Modern Developments and Applications in Microbeam Analysis & IUMAS-7 Meeting - 7th Meeting of the International union of Microbeam Analysis Societies. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 304, 011001.	0.3	1
24	Stone-Cold Low Temperature Cathodoluminescence Spectrometry of Quartz (SiO ₂). <i>Microscopy and Microanalysis</i> , 2018, 24, 2014-2015.	0.2	0
25	Understanding Effects Responsible for Pinhole Development and Coating Adhesion for Atomic Layer Deposited Coatings on Glass. <i>Microscopy and Microanalysis</i> , 2018, 24, 2172-2173.	0.2	0
26	Compositional Imaging and Analysis of Late Iron Age Glass from the Broborg Vitrified Hillfort, Sweden. <i>Microscopy and Microanalysis</i> , 2018, 24, 2134-2135.	0.2	2
27	Photoluminescence Spectroscopy of ZnO and TiCh Pigments. <i>Microscopy and Microanalysis</i> , 2018, 24, 2150-2151.	0.2	0
28	Microscopic Identification of Micro-Organisms on Pre-Viking Swedish Hillfort Glass. <i>Microscopy and Microanalysis</i> , 2018, 24, 2136-2137.	0.2	1
29	Laser Cleaning Iron Meteorite Corrosion, A Microstructural and Compositional Examination. <i>Microscopy and Microanalysis</i> , 2018, 24, 2160-2161.	0.2	0
30	The Anoka, Minnesota iron meteorite as parent to Hopewell meteoritic metal beads from Havana, Illinois. <i>Journal of Archaeological Science</i> , 2017, 81, 13-22.	1.2	9
31	Determination of Major, Minor, and Trace Elements in Jadeite using Scanning micro-X-ray Fluorescence. <i>Microscopy and Microanalysis</i> , 2017, 23, 1008-1009.	0.2	1
32	From Earth to Outer Space: Laser cleaning semiprecious quartz and a novel application for meteoritic metal. , 2017, , .		3
33	Use of Mineral Reference Standards in EPMA: Instrumental Calibration, Standards Comparison, and Quality Control. <i>Microscopy and Microanalysis</i> , 2017, 23, 496-497.	0.2	1
34	Uranium irradiation history of carbonado diamond; implications for Paleoproterozoic oxidation in the São Francisco craton. <i>Geology</i> , 2016, 44, 527-530.	2.0	7
35	Ni/S/Cl systematics and the origin of impact melt glasses in Martian meteorite Elephant Moraine 79001. <i>Meteoritics and Planetary Science</i> , 2016, 51, 663-680.	0.7	3
36	Rock varnish on architectural stone: microscopy and analysis of nanoscale manganese oxide deposits on the Smithsonian Castle, Washington, DC. <i>Heritage Science</i> , 2016, 4, .	1.0	16

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37	Optimizing compositional images of daguerreotype photographs using post processing methods. <i>Heritage Science</i> , 2016, 4, .	1.0	5
38	Exposure and analysis of microparticles embedded in silica aerogel keystones using NF ₃ -mediated electron beam-induced etching and energy-dispersive X-ray spectroscopy. <i>Meteoritics and Planetary Science</i> , 2016, 51, 1223-1232.	0.7	0
39	Modal abundances of pyroxene, olivine, and mesostasis in nakhlites: Heterogeneity, variation, and implications for nakhlite emplacement. <i>Meteoritics and Planetary Science</i> , 2015, 50, 1497-1511.	0.7	21
40	Volatile and Organic Compositions of Sedimentary Rocks in Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1245267.	6.0	323
41	A Habitable Fluvio-Lacustrine Environment at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1242777.	6.0	687
42	Mineralogy of a Mudstone at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1243480.	6.0	508
43	Mars's Surface Radiation Environment Measured with the Mars Science Laboratory's Curiosity Rover. <i>Science</i> , 2014, 343, 1244797.	6.0	475
44	In Situ Radiometric and Exposure Age Dating of the Martian Surface. <i>Science</i> , 2014, 343, 1247166.	6.0	224
45	Elemental Geochemistry of Sedimentary Rocks at Yellowknife Bay, Gale Crater, Mars. <i>Science</i> , 2014, 343, 1244734.	6.0	246
46	Understanding irregular shell formation of <i>Nautilus</i> in aquaria: Chemical composition and structural analysis. <i>Zoo Biology</i> , 2014, 33, 285-294.	0.5	6
47	Interdisciplinary X-Ray Microanalysis: From Planets and Comets to Artifacts and Fine Art. <i>Microscopy and Microanalysis</i> , 2014, 20, 716-717.	0.2	0
48	Morphologies, Isotopes, Crystal Structures, and Microstructures of Presolar Al ₂ O ₃ Grains: a NanoSIMS, EBSD, EDS, CL, and FIB-TEM study. <i>Microscopy and Microanalysis</i> , 2014, 20, 1696-1697.	0.2	0
49	Examination of a 19 th Century Daguerreotype Photograph using High Resolution Scanning Transmission Electron Microscopy for 2D and 3D Nanoscale Imaging and Analysis. <i>Microscopy and Microanalysis</i> , 2014, 20, 2000-2001.	0.2	6
50	Investigation of Atomic Layer Deposited Metal Oxide Layers for Conservation of Metal Cultural Heritage Objects*. <i>Microscopy and Microanalysis</i> , 2014, 20, 2002-2003.	0.2	0
51	Micro XRF Imaging of Daguerreotypes. <i>Microscopy and Microanalysis</i> , 2014, 20, 2028-2029.	0.2	2
52	Manganese in Black Crusts on Seneca Sandstone. <i>Microscopy and Microanalysis</i> , 2014, 20, 2044-2045.	0.2	4
53	Prussian blue fading by time-resolved X-ray absorption spectroscopy. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 111, 15-22.	1.1	29
54	X-ray Diffraction Results from Mars Science Laboratory: Mineralogy of Rocknest at Gale Crater. <i>Science</i> , 2013, 341, 1238932.	6.0	327

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55	Curiosity at Gale Crater, Mars: Characterization and Analysis of the Rocknest Sand Shadow. <i>Science</i> , 2013, 341, 1239505.	6.0	280
56	Why does Prussian blue fade? Understanding the role(s) of the substrate. <i>Journal of Analytical Atomic Spectrometry</i> , 2013, 28, 1600.	1.6	42
57	Abundance and Isotopic Composition of Gases in the Martian Atmosphere from the Curiosity Rover. <i>Science</i> , 2013, 341, 263-266.	6.0	327
58	Volatile, Isotope, and Organic Analysis of Martian Fines with the Mars Curiosity Rover. <i>Science</i> , 2013, 341, 1238937.	6.0	367
59	Element abundances, patterns, and mobility in Nakhlite Miller Range 03346 and implications for aqueous alteration. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 112, 208-225.	1.6	17
60	Martian Fluvial Conglomerates at Gale Crater. <i>Science</i> , 2013, 340, 1068-1072.	6.0	326
61	The Petrochemistry of Jake_M: A Martian Mugarite. <i>Science</i> , 2013, 341, 1239463.	6.0	134
62	Soil Diversity and Hydration as Observed by ChemCam at Gale Crater, Mars. <i>Science</i> , 2013, 341, 1238670.	6.0	215
63	Low Upper Limit to Methane Abundance on Mars. <i>Science</i> , 2013, 342, 355-357.	6.0	103
64	A Study of Cathodoluminescence and Trace Element Compositional Zoning in Natural Quartz from Volcanic Rocks: Mapping Titanium Content in Quartz. <i>Microscopy and Microanalysis</i> , 2012, 18, 1322-1341.	0.2	63
65	Drilling Down Into The Cathodoluminescence And Compositional Variation In Jadeite. <i>Microscopy and Microanalysis</i> , 2012, 18, 1054-1055.	0.2	14
66	Mineral Reference Standards and Quantitative Electron-Probe Microanalysis. <i>Microscopy and Microanalysis</i> , 2012, 18, 1734-1735.	0.2	5
67	A Combined EPMA and Cathodoluminescence Study of Minerals from Franklin NJ. <i>Microscopy and Microanalysis</i> , 2012, 18, 1746-1747.	0.2	1
68	Hyperspectral Cathodoluminescence Examination of Defects in a Carbonado Diamond. <i>Microscopy and Microanalysis</i> , 2012, 18, 1303-1312.	0.2	10
69	A Reduced Organic Carbon Component in Martian Basalts. <i>Science</i> , 2012, 337, 212-215.	6.0	182
70	The fate of subducted oceanic slabs in the shallow mantle: Insights from boron isotopes and light element composition of metasomatized blueschists from the Mariana forearc. <i>Lithos</i> , 2012, 132-133, 162-179.	0.6	76
71	Bridging the Micro-to-Macro Gap: A New Application for Micro X-Ray Fluorescence. <i>Microscopy and Microanalysis</i> , 2011, 17, 410-417.	0.2	16
72	An Examination of Kernite (Na ₂ B ₄ O ₆ (OH) ₂ ·3H ₂ O) Using X-Ray and Electron Spectroscopies: Quantitative Microanalysis of a Hydrated Low-Z Mineral. <i>Microscopy and Microanalysis</i> , 2011, 17, 718-727.	0.2	4

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73	Evidence for boron incorporation into the serpentine crystal structure. <i>American Mineralogist</i> , 2011, 96, 1112-1119.	0.9	42
74	Advances in Electron-Probe Microanalysis and Compositional Mapping: Applications to the Analysis of Meteorites. <i>Microscopy and Microanalysis</i> , 2009, 15, 534-535.	0.2	0
75	Three-dimensional Microanalysis Using FIB SEM: Variations in Technique. <i>Microscopy and Microanalysis</i> , 2009, 15, 476-477.	0.2	1
76	Solving the Micro to Macro Problem: A New Application for Milli X-ray Fluorescence X-ray Spectrum Imaging. <i>Microscopy and Microanalysis</i> , 2009, 15, 542-543.	0.2	0
77	Challenges Involved In X-Ray Microanalysis Of The Mineral Kernite [Na ₂ B ₄ O ₆ (OH) ₂ ·3H ₂ O]. <i>Microscopy and Microanalysis</i> , 2009, 15, 518-519.	0.2	0
78	Auger Electron Spectroscopy of Kernite: Coaxing Useful Information Out of a Recalcitrant Specimen. <i>Microscopy and Microanalysis</i> , 2009, 15, 1384-1385.	0.2	0
79	Sodic Pyroxene and Sodic Amphibole as Potential Reference Materials for <i>in Situ</i> Lithium Isotope Determinations by SIMS. <i>Geostandards and Geoanalytical Research</i> , 2008, 32, 295-310.	1.7	16
80	Hydrogen isotope evidence for loss of water from Mars through time. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	132
81	TOF-SIMS analysis of cometary matter in Stardust aerogel tracks. <i>Meteoritics and Planetary Science</i> , 2008, 43, 233-246.	0.7	42
82	Short- and Long-Term Olivine Weathering in Svalbard: Implications for Mars. <i>Astrobiology</i> , 2008, 8, 1079-1092.	1.5	44
83	Water by EPMA- New Developments. <i>Microscopy and Microanalysis</i> , 2008, 14, 1274-1275.	0.2	6
84	X-ray Mapping Analyses of Lunar Meteorite Dhofar 961: Characterization and Origin of the Mafic Impact-Melt Component. <i>Microscopy and Microanalysis</i> , 2008, 14, 514-515.	0.2	1
85	Systematics of Cathodoluminescence and Trace Element Compositional Zoning in Natural Quartz from Volcanic Rocks: Ti mapping in Quartz. <i>Microscopy and Microanalysis</i> , 2008, 14, 38-39.	0.2	5
86	Hyperspectral X-ray Analysis of Submicrometer-scale Heterogeneities in a Venerable Compositional Standard Provided by Nature: Kakanui Hornblende. <i>Microscopy and Microanalysis</i> , 2008, 14, 522-523.	0.2	5
87	A cornucopia of presolar and early solar system materials at the micrometer size range in primitive chondrite matrix. <i>Meteoritics and Planetary Science</i> , 2007, 42, 1417-1427.	0.7	36
88	Comet 81P/Wild 2 Under a Microscope. <i>Science</i> , 2006, 314, 1711-1716.	6.0	848
89	Elemental Compositions of Comet 81P/Wild 2 Samples Collected by Stardust. <i>Science</i> , 2006, 314, 1731-1735.	6.0	200
90	A Cathodoluminescence (and Raman) Imaging and Spectroscopic Study of Ancient Polycrystalline Diamond. <i>Microscopy and Microanalysis</i> , 2006, 12, 1518-1519.	0.2	3

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91	Aqueous Processes Recorded by Martian Meteorites: Analyzing Martian Water on Earth. <i>Elements</i> , 2006, 2, 157-162.	0.5	31
92	Iron-Magnesium Silicate Bioweathering on Earth (and Mars?). <i>Astrobiology</i> , 2006, 6, 48-68.	1.5	69
93	Microstructural study of synthetic sintered diamond and comparison with carbonado, a natural polycrystalline diamond. <i>American Mineralogist</i> , 2004, 89, 438-445.	0.9	13
94	Determining the Local Bulk Chemistry of Martian Aqueous Alteration via X-ray Spectrum Imaging: A Link to Global Dust on Mars?. <i>Microscopy and Microanalysis</i> , 2004, 10, 894-895.	0.2	0
95	Progress on yttria-stabilized zirconia sensors for hydrothermal pH measurements. <i>Chemical Geology</i> , 2003, 198, 141-162.	1.4	47
96	Microbeam characterization of coning archeological reference glasses: New additions to the Smithsonian Microbeam Standard collection. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2002, 107, 719.	0.4	116
97	Chemical heterogeneity in carbonado, an enigmatic polycrystalline diamond. <i>Earth and Planetary Science Letters</i> , 2001, 185, 315-330.	1.8	29
98	MICRO-ANALYTICAL STUDY OF THE OPTICAL PROPERTIES OF RAINBOW AND SHEEN OBSIDIANS. <i>Canadian Mineralogist</i> , 2001, 39, 57-71.	0.3	12
99	Focused ion beam milling: A method of site-specific sample extraction for microanalysis of Earth and planetary materials. <i>American Mineralogist</i> , 2001, 86, 1094-1099.	0.9	176
100	Condensed-phase modifications in magnesium particle combustion in air. <i>Combustion and Flame</i> , 2000, 122, 30-42.	2.8	64
101	Semitransparent cathodes for organic light emitting devices. <i>Journal of Applied Physics</i> , 2000, 87, 3080-3085.	1.1	110
102	High-temperature phases in ternary Zr-O-N systems. <i>Journal of Materials Research</i> , 1999, 14, 3840-3842.	1.2	8
103	Focus on community: directions for nursing knowledge development. <i>Journal of Advanced Nursing</i> , 1999, 29, 1188-1196.	1.5	11
104	Condensed-phase species distributions about Al particles reacting in various oxidizers. <i>Combustion and Flame</i> , 1999, 117, 351-361.	2.8	90
105	Phase changes in boron ignition and combustion. <i>Combustion and Flame</i> , 1999, 119, 272-290.	2.8	67
106	Phases of Titanium Combustion in Air. <i>Combustion and Flame</i> , 1998, 112, 522-532.	2.8	80
107	Formation and Structure of a Tin-Iron Oxide Solid-State System with Potential Applications in Carbon Monoxide Sensing through the Use of Cyanogel Chemistry. <i>Chemistry of Materials</i> , 1998, 10, 880-885.	3.2	23
108	Microstructural observations of polycrystalline diamond: a contribution to the carbonado conundrum. <i>Earth and Planetary Science Letters</i> , 1998, 164, 421-433.	1.8	49

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109	Inorganic Photolithography: Interfacial Multicomponent Pattern Generation. <i>Journal of Chemical Education</i> , 1997, 74, 663.	1.1	12
110	Light-induced multielectron charge transfer processes occurring in a series of Group-8-platinum cyanobridged complexes. <i>Coordination Chemistry Reviews</i> , 1997, 159, 245-255.	9.5	18
111	CHAOS IN NURSING. <i>American Journal of Nursing</i> , 1997, 97, 26-31.	0.2	74
112	Growth and Characterization of Photoactive and Electroactive Zirconium Bisphosphonate Multilayer Films. <i>Chemistry of Materials</i> , 1996, 8, 1490-1499.	3.2	68
113	REVIEW: USES OF THEORY IN COMMUNITY HEALTH NURSING. <i>Public Health Nursing</i> , 1995, 12, 140-140.	0.7	1
114	Immiscible silicate liquids at high pressure: The influence of melt structure on elemental partitioning. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995, 104, 470-475.	0.6	6
115	Development of Redox-Active Optical Mesostructures at Chemically Modified Electrode Interfaces. <i>Inorganic Chemistry</i> , 1995, 34, 4262-4267.	1.9	37
116	Chaos Theory and Some Nursing Considerations. <i>Nursing Science Quarterly</i> , 1994, 7, 36-42.	0.3	15
117	Chaos Theory and Nursing Revisited. <i>Nursing Science Quarterly</i> , 1994, 7, 150-152.	0.3	4
118	Structure of a Novel Layered Zirconium Diphosphonate Compound: $Zr_2(O_3PCH_2CH_2\text{-viologen-}CH_2CH_2PO_3)F_6 \cdot 2H_2O$. <i>Chemistry of Materials</i> , 1994, 6, 1845-1849.	3.2	54
119	Effect of oxygen fugacity on trace-element partitioning between immiscible silicate melts at atmospheric pressure: A proton and electron microprobe study. <i>Chemical Geology</i> , 1994, 117, 355-360.	1.4	14
120	AIDS Education on the College Campus: Roy's Adaptation Model Directs Inquiry. <i>Public Health Nursing</i> , 1992, 9, 270-276.	0.7	16
121	Nurse Manners'* Guide to Politically Correct Behavior. <i>Journal of Nursing Scholarship</i> , 1991, 23, 193-194.	0.5	0
122	The geology and geochemistry of Isla Marchena, Galapagos Archipelago: An ocean island adjacent to a mid-ocean ridge. <i>Journal of Volcanology and Geothermal Research</i> , 1990, 40, 291-315.	0.8	33
123	Inclusion/host relations involving accessory minerals in high-grade metamorphic and anatectic rocks. <i>Contributions To Mineralogy and Petrology</i> , 1989, 101, 220-231.	1.2	87
124	Plagioclase-ultraphyric basalts of the galapagos archipelago. <i>Journal of Volcanology and Geothermal Research</i> , 1989, 37, 325-337.	0.8	41
125	The Galapagos volcano Alcedo: A unique ocean caldera. <i>Journal of Volcanology and Geothermal Research</i> , 1985, 26, 173-177.	0.8	13