

Jonathan S Watson

List of Publications by Year in descending order

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47
papers

1,196
citations

394390

19
h-index

377849

34
g-index

51
all docs

51
docs citations

51
times ranked

1712
citing authors

#	ARTICLE	IF	CITATIONS
1	Extraterrestrial nucleobases in the Murchison meteorite. <i>Earth and Planetary Science Letters</i> , 2008, 270, 130-136.	4.4	317
2	Rapid determination of spore chemistry using thermochemolysis gas chromatography-mass spectrometry and micro-Fourier transform infrared spectroscopy. <i>Photochemical and Photobiological Sciences</i> , 2007, 6, 689.	2.9	58
3	Recovering waste plastics using shape-selective nano-scale reactors as catalysts. <i>Nature Sustainability</i> , 2019, 2, 39-42.	23.7	53
4	Assessing and calibrating the ATR-FTIR approach as a carbonate rock characterization tool. <i>Sedimentary Geology</i> , 2017, 347, 36-52.	2.1	47
5	Changes in spore chemistry and appearance with increasing maturity. <i>Review of Palaeobotany and Palynology</i> , 2014, 201, 41-46.	1.5	46
6	Formation of a polyalkyl macromolecule from the hydrolysable component within sporopollenin during heating/pyrolysis experiments with <i>Lycopodium</i> spores. <i>Journal of Analytical and Applied Pyrolysis</i> , 2012, 95, 138-144.	5.5	44
7	Two large meteorite impacts at the Cretaceous-Paleogene boundary. <i>Geology</i> , 2010, 38, 835-838.	4.4	40
8	UV-B absorbing pigments in spores: biochemical responses to shade in a high-latitude birch forest and implications for sporopollenin-based proxies of past environmental change. <i>Polar Research</i> , 2011, 30, 8312.	1.6	38
9	Subcritical water extraction of organic matter from sedimentary rocks. <i>Analytica Chimica Acta</i> , 2015, 879, 48-57.	5.4	38
10	Sulfate Minerals: A Problem for the Detection of Organic Compounds on Mars?. <i>Astrobiology</i> , 2015, 15, 247-258.	3.0	31
11	Identification of fossil worm tubes from Phanerozoic hydrothermal vents and cold seeps. <i>Journal of Systematic Palaeontology</i> , 2019, 17, 287-329.	1.5	30
12	Oxygen-containing aromatic compounds in a Late Permian sediment. <i>Organic Geochemistry</i> , 2005, 36, 371-384.	1.8	28
13	Organic geochemical characteristics of black shales across the Ordovician-Silurian boundary in the Holy Cross Mountains, central Poland. <i>Marine and Petroleum Geology</i> , 2015, 66, 1042-1055.	3.3	28
14	Hydropyrolysis: A new technique for the analysis of macromolecular material in meteorites. <i>Planetary and Space Science</i> , 2005, 53, 1280-1286.	1.7	27
15	Organic compounds preserved in a 2.9million year old stalagmite from the Nullarbor Plain, Australia. <i>Chemical Geology</i> , 2010, 279, 101-105.	3.3	26
16	Chemical constitution of a Permian-Triassic disaster species. <i>Geology</i> , 2009, 37, 875-878.	4.4	25
17	Portable and rapid arsenic speciation in synthetic and natural waters by an As(V)-selective chemisorbent, validated against anodic stripping voltammetry. <i>Water Research</i> , 2020, 175, 115650.	11.3	22
18	Contamination by sesquiterpenoid derivatives in the Orgueil carbonaceous chondrite. <i>Organic Geochemistry</i> , 2003, 34, 37-47.	1.8	21

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19	A high-resolution nonmarine record of an early Danian hyperthermal event, Boltysch crater, Ukraine. <i>Geology</i> , 2013, 41, 783-786.	4.4	21
20	Thermochemolysis of organic matter preserved in stalagmites: A preliminary study. <i>Organic Geochemistry</i> , 2009, 40, 1029-1031.	1.8	19
21	Cyanobacteria isolated from the high-intertidal zone: a model for studying the physiological prerequisites for survival in low Earth orbit. <i>International Journal of Astrobiology</i> , 2013, 12, 292-303.	1.6	19
22	Sporopollenin, a Natural Copolymer, is Robust under High Hydrostatic Pressure. <i>Macromolecular Chemistry and Physics</i> , 2016, 217, 2494-2500.	2.2	19
23	Perchlorate-induced combustion of organic matter with variable molecular weights: Implications for Mars missions. <i>Geophysical Research Letters</i> , 2014, 41, 7453-7460.	4.0	17
24	Geomicrobiology of a Weathering Crust from an Impact Crater and a Hypothesis for its Formation. <i>Geomicrobiology Journal</i> , 2007, 24, 425-440.	2.0	16
25	Contrasting wetland CH ₄ emission responses to simulated glacial atmospheric CO ₂ in temperate bogs and fens. <i>New Phytologist</i> , 2011, 192, 898-911.	7.3	16
26	The Search for Hesperian Organic Matter on Mars: Pyrolysis Studies of Sediments Rich in Sulfur and Iron. <i>Astrobiology</i> , 2018, 18, 454-464.	3.0	16
27	Minimising hydrogen sulphide generation during steam assisted production of heavy oil. <i>Scientific Reports</i> , 2015, 5, 8159.	3.3	13
28	Heat, Aromatic Units, and Iron-Rich Phyllosilicates: A Mechanism for Making Macromolecules in the Early Solar System. <i>Astrobiology</i> , 2015, 15, 787-792.	3.0	12
29	Perchlorate-Driven Combustion of Organic Matter During Pyrolysis-Gas Chromatography-Mass Spectrometry: Implications for Organic Matter Detection on Earth and Mars. <i>Journal of Geophysical Research E: Planets</i> , 2018, 123, 1901-1909.	3.6	12
30	Mapping hydrocarbon charge-points in the Wessex Basin using seismic, geochemistry and mineral magnetics. <i>Marine and Petroleum Geology</i> , 2020, 111, 510-528.	3.3	12
31	Adsorption of tetradecanoic acid on kaolinite minerals: Using flash pyrolysis to characterise the catalytic efficiency of clay mineral adsorbed fatty acids. <i>Chemical Geology</i> , 2017, 471, 111-118.	3.3	10
32	Experimental study of pH effect on uranium (UVI) particle formation and transport through quartz sand in alkaline 0.1 M sodium chloride solutions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 592, 124375.	4.7	10
33	Thermochemolysis of the Murchison meteorite: identification of oxygen bound and occluded units in the organic macromolecule. <i>International Journal of Astrobiology</i> , 2010, 9, 201-208.	1.6	9
34	Role of Minerals in Hydrogen Sulfide Generation during Steam-Assisted Recovery of Heavy Oil. <i>Energy & Fuels</i> , 2018, 32, 4651-4654.	5.1	8
35	The Effects of Minerals on Heavy Oil and Bitumen Chemistry When Recovered Using Steam-Assisted Methods. , 2014, , .		6
36	Mineral Matrix Effects on Pyrolysis Products of Kerogens Infer Difficulties in Determining Biological Provenance of Macromolecular Organic Matter at Mars. <i>Astrobiology</i> , 2022, 22, 520-540.	3.0	6

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37	AN ORGANIC COSMO-BAROMETER: DISTINCT PRESSURE AND TEMPERATURE EFFECTS FOR METHYL SUBSTITUTED POLYCYCLIC AROMATIC HYDROCARBONS. <i>Astrophysical Journal</i> , 2014, 784, 98.	4.5	5
38	Multiple Cosmic Sources for Meteorite Macromolecules?. <i>Astrobiology</i> , 2015, 15, 779-786.	3.0	5
39	Organic compound-mineral interactions: Using flash pyrolysis to monitor the adsorption of fatty acids on calcite. <i>Journal of Analytical and Applied Pyrolysis</i> , 2017, 123, 184-193.	5.5	5
40	Pyrolysis of Carboxylic Acids in the Presence of Iron Oxides: Implications for Life Detection on Missions to Mars. <i>Astrobiology</i> , 2021, 21, 673-691.	3.0	5
41	Determining the Levels of Volatile Organic Pollutants in Urban Air Using a Gas Chromatography-Mass Spectrometry Method. <i>Journal of Environmental and Public Health</i> , 2009, 2009, 1-4.	0.9	4
42	Quantitative Laboratory Assessment Of Aquathermolysis Chemistry During Steam-assisted Recovery Of Heavy Oils And Bitumen, With A Focus On Sulfur. , 2013, , .		4
43	Parameters Affecting Haloacetic Acid and Trihalomethane Concentrations in Treated UK Drinking Waters. <i>ACS Symposium Series</i> , 2008, , 95-108.	0.5	3
44	Transformation of Cyanobacterial Biomolecules by Iron Oxides During Flash Pyrolysis: Implications for Mars Life-Detection Missions. <i>Astrobiology</i> , 2021, 21, 1363-1386.	3.0	2
45	Molecular, isotopic and in situ analytical approaches to the study of meteoritic organic material. <i>International Journal of Astrobiology</i> , 2004, 3, 107-116.	1.6	1
46	Solid Phase Micro Extraction: Potential for Organic Contamination Control for Planetary Protection of Life-Detection Missions to the Icy Moons of the Outer Solar System. <i>Astrobiology</i> , 2019, 19, 1153-1166.	3.0	1
47	Environmental screening of water associated with shale gas extraction by fluorescence excitation emission matrix. <i>Environmental Science: Water Research and Technology</i> , 2022, 8, 2196-2206.	2.4	1