Robert W Fitzpatrick

List of Publications by Year
in descending order

131 papers	3,474 citations	147566 31 h-index	174990 52 g-index
139 all docs	139 docs citations	139 times ranked	2758 citing authors

#	Article	IF	Citations
1	Extreme biogeochemical effects following simulation of recurrent drought in acid sulfate soils. Applied Geochemistry, 2022, 136, 105146.	1.4	0
2	The forensic comparison of trace amounts of soil on a pyjama top with hypersulphidic subaqueous soil from a river as evidence in a homicide cold case. Geological Society Special Publication, 2021, 492, 197-218.	0.8	2
3	Trace evidence examination using laboratory and synchrotron X-ray diffraction techniques. Geological Society Special Publication, 2021, 492, 165-179.	0.8	3
4	Exploring passivation-based treatments for jarosite from an acid sulfate soil. Chemical Geology, 2021, 561, 120034.	1.4	4
5	Addition of wheat straw to acid sulfate soils with different clay contents reduces acidification in two consecutive submerged-moist cycles. Geoderma, 2021, 385, 114892.	2.3	3
6	An introduction to forensic soil science and forensic geology: a synthesis. Geological Society Special Publication, 2021, 492, 1-32.	0.8	7
7	Porosity and organic matter distribution in jarositic phyto tubules of sulfuric soils assessed by combined ÂµCT and NanoSIMS analysis. Geoderma, 2021, 399, 115124.	2.3	8
8	Drought effects on wet soils in inland wetlands and peatlands. Earth-Science Reviews, 2020, 210, 103387.	4.0	38
9	Composition and dissolution kinetics of jarosite-rich segregations extracted from an acid sulfate soil with sulfuric material. Chemical Geology, 2020, 543, 119606.	1.4	20
10	Acute Respiratory Obstruction due to Accidental Inhalation of Perlite: A Novel Mechanism for Upper Airway Occlusion with Cast Formation. Journal of Forensic Sciences, 2020, 65, 1354-1359.	0.9	2
11	The use of mid-infrared diffuse reflectance spectroscopy for acid sulfate soil analysis. Science of the Total Environment, 2019, 646, 1489-1502.	3.9	9
12	Consumption and alteration of different organic matter sources during remediation of a sandy sulfuric soil. Geoderma, 2019, 347, 220-232.	2.3	14
13	The application of a spectrophotometric method to determine pH in acidic (pH<5) soils. Talanta, 2018, 186, 421-426.	2.9	12
14	Restoration of wetlands: successes and failures on scalds comprising an iron oxide clogged layer with areas of acid sulfate soils. Plant and Soil, 2018, 433, 289-307.	1.8	5
15	Assessment of the Binding of Protons, Al and Fe to Biochar at Different pH Values and Soluble Metal Concentrations. Water (Switzerland), 2018, 10, 55.	1.2	7
16	Alteration of organic matter during remediation of acid sulfate soils. Geoderma, 2018, 332, 121-134.	2.3	17
17	Prolonged recovery of acid sulfate soils with sulfuric materials following severe drought: causes and implications. Geoderma, 2017, 308, 312-320.	2.3	29
18	Patterns produced when soil is transferred to bras by placing and dragging actions: The application of digital photography and image processing to support visible observations. Forensic Science International, 2017, 276, 24-40.	1.3	12

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19	Impacts of Climate Change, Climate Variability and Management on Soil and Water Quality in Wetlands of South Australia. Procedia Earth and Planetary Science, 2017, 17, 456-459.	0.6	6
20	Field trial and modelling of different strategies for remediation of soil salinity and sodicity in the Lower Murray irrigation areas. Soil Research, 2017, 55, 670.	0.6	5
21	Schwertmannite formation and properties in acidic drain environments following exposure and oxidation of acid sulfate soils in irrigation areas during extreme drought. Geoderma, 2017, 308, 235-251.	2.3	44
22	Historical developments in the understanding of acid sulfate soils. Geoderma, 2017, 308, 191-206.	2.3	56
23	Acid sulfate soil evolution models and pedogenic pathways during drought and reflooding cycles in irrigated areas and adjacent natural wetlands. Geoderma, 2017, 308, 270-290.	2.3	28
24	Scientific evidence for the identification of an Aboriginal massacre at the Sturt Creek sites on the Kimberley frontier of north-western Australia. Forensic Science International, 2017, 279, 258-267.	1.3	6
25	Effects of live wetland plant macrophytes on acidification, redox potential and sulphate content in acid sulphate soils. Soil Use and Management, 2017, 33, 471-481.	2.6	25
26	Linking organic matter composition in acid sulfate soils to pH recovery after re-submerging. Geoderma, 2017, 308, 350-362.	2.3	16
27	Dr Keith Norrish (1924â€"2017). Clay Minerals, 2017, 52, 537-538.	0.2	0
28	Global developments in forensic geology. Episodes, 2017, 40, 120-131.	0.8	15
29	The role of pedology and mineralogy in providing evidence for 5 crime investigations involving a wide range of earth materials. Episodes, 2017, 40, 148-156.	0.8	7
30	Soil transference patterns on clothing fabrics and plastic buttons: Image processing and laboratory dragging experiments. Forensic Science and Criminology, 2017, 2, .	0.3	1
31	An investigation of the pattern formed by soil transfer when clothing fabrics are placed on soil using visual examination and image processing analysis. Forensic Science and Criminology, 2017, 2, .	0.3	1
32	Organic matter addition can prevent acidification during oxidation of sandy hypersulfidic and hyposulfidic material: Effect of application form, rate and C/N ratio. Geoderma, 2016, 276, 26-32.	2.3	13
33	Addition of organic material to sulfuric soil can reduce leaching of protons, iron and aluminium. Geoderma, 2016, 271, 63-70.	2.3	10
34	Organic materials retain high proportion of protons, iron and aluminium from acid sulphate soil drainage water with little subsequent release. Environmental Science and Pollution Research, 2016, 23, 23582-23592.	2.7	2
35	The importance of soil carbon and nitrogen for amelioration of acid sulphate soils. Soil Use and Management, 2016, 32, 97-105.	2.6	14
36	Mobilising citizen scientists to monitor rapidly changing acid sulfate soils. Transactions of the Royal Society of South Australia, 2016, 140, 186-202.	0.1	5

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37	Type of organic carbon amendment influences pH changes in acid sulfate soils in flooded and dry conditions. Journal of Soils and Sediments, 2016, 16, 518-526.	1.5	19
38	Addition of clayey soils with high net negative acidity to sulfuric sandy soil can minimise pH changes during wet and dry periods. Geoderma, 2016, 269, 153-159.	2.3	2
39	Soil transference patterns on bras: Image processing and laboratory dragging experiments. Forensic Science International, 2016, 258, 88-100.	1.3	14
40	Addition of organic matter influences pH changes in reduced and oxidised acid sulfate soils. Geoderma, 2016, 262, 125-132.	2.3	40
41	Porewater Geochemistry of Inland Acid Sulfate Soils with Sulfuric Horizons Following Postdrought Reflooding with Freshwater. Journal of Environmental Quality, 2015, 44, 989-1000.	1.0	15
42	Sulfate reduction in sulfuric material after re-flooding: Effectiveness of organic carbon addition and pH increase depends on soil properties. Journal of Hazardous Materials, 2015, 298, 138-145.	6.5	34
43	Amount of organic matter required to induce sulfate reduction in sulfuric material after re-flooding is affected by soil nitrate concentration. Journal of Environmental Management, 2015, 151, 437-442.	3.8	29
44	Assisting Non-Soil Experts to Identify Soil Types for Land Management to Support Restoration of Arid Rangeland Native Vegetation in Kuwait. Arid Land Research and Management, 2015, 29, 288-305.	0.6	2
45	Geochemical processes following freshwater reflooding of acidified inland acid sulfate soils: An in situ mesocosm experiment. Chemical Geology, 2015, 411, 200-214.	1.4	12
46	Soil survey data rescued by means of user friendly soil identification keys and toposequence models to deliver soil information for improved land management. GeoResJ, 2015, 6, 81-91.	1.4	9
47	The role of organic matter in ameliorating acid sulfate soils with sulfuric horizons. Geoderma, 2015, 255-256, 42-49.	2.3	41
48	Organic Materials Differ in Ability to Remove Protons, Iron and Aluminium from Acid Sulfate Soil Drainage Water. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	7
49	Assisting nonsoil specialists to identify soil types for land management: an approach using a soil identification key and toposequence models. Soil Use and Management, 2014, 30, 251-262.	2.6	2
50	Regional distribution trends and properties of acid sulfate soils during severe drought in wetlands along the lower River Murray, South Australia: Supporting hazard assessment. Geoderma Regional, 2014, 2-3, 60-71.	0.9	10
51	Acidification of floodplains due to river level decline during drought. Journal of Contaminant Hydrology, 2014, 161, 10-23.	1.6	37
52	Monitoring and assessment of surface water acidification following rewetting of oxidised acid sulfate soils. Environmental Monitoring and Assessment, 2014, 186, 1-18.	1.3	36
53	Changes in acidity and metal geochemistry in soils, groundwater, drain and river water in the Lower Murray River after a severe drought. Science of the Total Environment, 2014, 485-486, 281-291.	3.9	61
54	The geochemistry during management of lake acidification caused by the rewetting of sulfuric ($pH<4$) acid sulfate soils. Applied Geochemistry, 2014, 41, 49-61.	1.4	24

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55	Soils. , 2013, , 206-212.		10
56	The occurrence of inland acid sulphate soils in the floodplain wetlands of the <scp>M</scp>urrayâ€"<scp>D</scp>arling <scp>B</scp>asin, <scp>A</scp>ustralia, identified using a simplified incubation method. Soil Use and Management, 2013, 29, 130-139.	2.6	9
57	Demands on Soil Classification and Soil Survey Strategies: Special-Purpose Soil Classification Systems for Local Practical Use. , 2013, , 51-83.		20
58	Conceptual Soil-Regolith Toposequence Models to Support Soil Survey and Land Evaluation. , 2013, , 165-174.		2
59	Acid sulphate soil characterization in <scp>N</scp>egara <scp>B</scp>runei <scp>D</scp>arussalam: a case study to inform management decisions. Soil Use and Management, 2013, 29, 432-444.	2.6	25
60	Submission on the Draft Murray-Darling Basin Plan. Transactions of the Royal Society of South Australia, 2013, 137, 135-137.	0.1	2
61	A simplified incubation method using chipâ€trays as incubation vessels to identify sulphidic materials in acid sulphate soils. Soil Use and Management, 2012, 28, 401-408.	2.6	15
62	How Pedology and Mineralogy Helped Solve a Double Murder Case: Using Forensics to Inspire Future Generations of Soil Scientists. Soil Horizons, 2012, 53, 14.	0.3	31
63	Spatial and temporal trends in soil salinity for identifying perched and deep groundwater systems. Soil Use and Management, 2011, 27, 264-279.	2.6	1
64	A web-based approach to improve collation and communication of complex soil-landscape data with examples relating to agricultural production, environmental degradation and mineral exploration. Soil Use and Management, 2011, 27, 550-559.	2.6	1
65	Climate-driven mobilisation of acid and metals from acid sulfate soils. Marine and Freshwater Research, 2010, 61, 129.	0.7	41
66	An expert system to predict intricate saline - sodic subsoil patterns in upland South Australia. Soil Research, 2009, 47, 602.	0.6	3
67	Iron-Monosulfide Oxidation in Natural Sediments: Resolving Microbially Mediated S Transformations Using XANES, Electron Microscopy, and Selective Extractions. Environmental Science & Technology, 2009, 43, 3128-3134.	4.6	111
68	Assessing parent material uniformity of a red and black soil complex in the landscapes. Catena, 2009, 78, 142-153.	2.2	26
69	Distribution and causes of intricate saline - sodic soil patterns in an upland South Australian hillslope. Soil Research, 2009, 47, 328.	0.6	9
70	Fe and S K-edge XAS determination of iron-sulfur species present in a range of acid sulfate soils: Effects of particle size and concentration on quantitative XANES determinations. Journal of Physics: Conference Series, 2009, 190, 012144.	0.3	6
71	Micromorphological evidence for mineral weathering pathways in a coastal acid sulfate soil sequence with Mediterranean-type climate, South Australia. Soil Research, 2009, 47, 403.	0.6	46
72	A Systematic Approach to Soil Forensics: Criminal Case Studies Involving Transference from Crime Scene to Forensic Evidence. , 2009, , 105-127.		37

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73	Effect of season and landscape position on the aluminium geochemistry of tropical acid sulfate soil leachate. Soil Research, 2009, 47, 137.	0.6	35
74	Thermal and mineral properties of Al-, Cr-, Mn-, Ni- and Ti-substituted goethite. Clays and Clay Minerals, 2006, 54, 176-194.	0.6	65
75	Sulfidic materials in dryland river wetlands. Marine and Freshwater Research, 2006, 57, 775.	0.7	26
76	CLASSIFICATION SYSTEMS | Australian. , 2005, , 211-216.		5
77	Quantitative Heavy-Mineral Analysis of a Pliocene Beach Placer Deposit in Southeastern Australia Using the AutoGeoSEM. Journal of Sedimentary Research, 2005, 75, 742-759.	0.8	11
78	Soil mineralogy and other properties in forensic investigations. Acta Crystallographica Section A: Foundations and Advances, 2005, 61, c14-c14.	0.3	2
79	Chemical reduction causing land degradation. I Overview. Plant and Soil, 2004, 267, 51-59.	1.8	4
80	Chemical reduction causing land degradation. II Detailed observations at a discharge site in the Eastern Dundas Tablelands, Victoria, Australia. Plant and Soil, 2004, 267, 85-95.	1.8	3
81	Soil and catchment health indicators of sustainability: case studies from southern Australia and possibilities for the northern grains region of Australia. Australian Journal of Experimental Agriculture, 2003, 43, 205.	1.0	8
82	Development of soil-landscape and vegetation indicators for managing waterlogged and saline catchments. Australian Journal of Experimental Agriculture, 2003, 43, 245.	1.0	5
83	Restricting layers, flow paths and correlation between duration of soil saturation and soil morphological features along a hillslope with an altered soil water regime in western Victoria. Soil Research, 2002, 40, 927.	0.6	20
84	Interpretation of morphological features in a salt-affected duplex soil toposequence with an altered soil water regime in western Victoria. Soil Research, 2002, 40, 903.	0.6	24
85	Properties and Acid Dissolution of Metal-Substituted Hematites. Clays and Clay Minerals, 2001, 49, 60-72.	0.6	32
86	Magnetic properties of metal-substituted haematite. Geophysical Journal International, 1999, 138, 571-580.	1.0	29
87	Contributions of groundwater conditions to soil and water salinization. Hydrogeology Journal, 1999, 7, 46-64.	0.9	155
88	An algorithm to model mass balances quantitatively. Computers and Geosciences, 1998, 24, 77-82.	2.0	9
89	Genesis of podzols on coastal dunes in southern Queensland. V. Chemistry and mineralogy of the non-opaque heavy mineral fraction. Soil Research, 1998, 36, 699.	0.6	6
90	Interpretation of soil features produced by ancient and modern processes in degraded landscapes: V. Development of saline sulfidic features in non-tidal seepage areas. Geoderma, 1996, 69, 1-29.	2.3	59

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91	Interpretation of soil features produced by ancient and modern processes in degraded landscapes. VII. Water duration. Soil Research, 1996, 34, 803.	0.6	32
92	Soil solution composition and aggregate stability changes caused by long-term farming at four contrasting sites in South Australia. Soil Research, 1996, 34, 511.	0.6	20
93	A soil-site evaluation index of productivity in intensively managed Pinus radiata (D. Don) plantations in South Australia. Environmental Monitoring and Assessment, 1996, 39, 531-541.	1.3	6
94	Field-based comparison of platinum and wax impregnated graphite redox electrodes. Soil Research, 1995, 33, 415.	0.6	5
95	Field monitoring of solute and colloid mobility in a gneissic sub-catchment, South Australia. Applied Clay Science, 1995, 9, 433-442.	2.6	22
96	Interpretation of soil features produced by ancient and modern processes in degraded landscapes .1. A new method for constructing conceptual soil-water-landscape models. Soil Research, 1994, 32, 889.	0.6	41
97	A soil-diagnostic key to manage saline and waterlogged catchments in the Mt Lofty Ranges, South Australia. Soil Use and Management, 1994, 10, 145-152.	2.6	7
98	Environmental consequences of soil sodicity. Soil Research, 1994, 32, 1069.	0.6	35
99	Colour plates - Interpretation of soil features produced by ancient and modern processes in degraded landscapes .1. A new method for constructing conceptual soil-water-landscape models. Soil Research, 1994, 32, 880.	0.6	6
100	Computing procedures for mapping soil features at sub-catchment scale. Soil Research, 1994, 32, 908.	0.6	1
101	Comparison of tillage forces and wear rates of pressed and cast cultivator shares. Soil and Tillage Research, 1993, 25, 317-328.	2.6	24
102	Nature and origin of a duripan in a Durixeralf-Duraqualf toposequence: micromorphological aspects. Developments in Soil Science, 1993, , 835-844.	0.5	1
103	Sodicity in South Australia - a review. Soil Research, 1993, 31, 911.	0.6	20
104	Effect of landuse on the composition of throughflow water immediately above clayey B horizons in the Warren Catchment, South Australia. Australian Journal of Experimental Agriculture, 1993, 33, 239.	1.0	13
105	Genesis of podzols on coastal dunes in southern Queensland .II. Geochemistry and forms of elements as deduced from various soil extraction procedures. Soil Research, 1992, 30, 615.	0.6	45
106	A slope sequence of Podzols in the southern Cape, South Africa 1. Physical and micromorphological properties. South African Journal of Plant and Soil, 1992, 9, 94-102.	0.4	3
107	Differential X-Ray Diffraction (DXRD) of poorly crystalline materials in synthetic, metal-substituted goethite and hematite. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1992, 155, 423-429.	0.4	2
108	Warren Reservoir catchment studies: chemistry of throughflow water immediately above sodic B horizons. Australian Journal of Experimental Agriculture, 1992, 32, 992.	1.0	0

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109	Components and microbial biomass content of size fractions in soils of contrasting aggregation. Geoderma, 1991, 50, 37-62.	2.3	180
110	Scanning electron microscope study of zircons and rutiles from a podzol chronosequence at Cooloola, Queensland, Australia. Catena, 1991, 18, 11-30.	2.2	24
111	Weathering Assessment of Heavy Minerals in Age Sequences of Australian Sandy Soils. Soil Science Society of America Journal, 1991, 55, 427.	1.2	14
112	Selfâ€Mulching as a Classification Criterion at the Subgroup or Family Level. Soil Science Society of America Journal, 1991, 55, 1804-1805.	1.2	0
113	New Data and a Revised Structural Model for Ferrihydrite: Reply. Clays and Clay Minerals, 1990, 38, 335-336.	0.6	26
114	Thermoluminescence dating of coastal sand dunes at Cooloola and North Stradbroke Island, Australia. Soil Research, 1990, 28, 465.	0.6	59
115	Iron Compounds as Indicators of Pedogenic Processes: Examples from the Southern Hemisphere. , 1988, , 351-396.		30
116	New Data and a Revised Structural Model for Ferrihydrite. Clays and Clay Minerals, 1988, 36, 111-124.	0.6	283
117	Petrology and mineralogy of â€˜lateritesâ€™ in southern and eastern Australia and southern Africa. Chemical Geology, 1987, 60, 237-250.	1.4	23
118	The influence of sucrose and glycerol on the formation and transformation of iron oxides â€” The implication for soil formation. Applied Clay Science, 1987, 2, 41-62.	2.6	4
119	Soil formation in the coast aeolianites and sands of Natal. Journal of Soil Science, 1985, 36, 373-387.	1.2	8
120	Occurrence and properties of lepidocrocite in some soils of New Zealand, South Africa and Australia. Soil Research, 1985, 23, 543.	0.6	37
121	Highly weathered soils in the east coast hinterland of Southern Africa with thick, humusâ€rich A1 horizons. Journal of Soil Science, 1984, 35, 103-115.	1.2	6
122	Pedological significance of the gravels in some red and grey earths of central north Queensland. Soil Research, 1983, 21, 219.	0.6	36
123	Al-substituted goethiteâ€"An indicator of pedogenic and other weathering environments in South Africa. Geoderma, 1982, 27, 335-347.	2.3	227
124	A Tentative Evaluation of Soil Types for Commercial Afforestation in the Transvaal and Natal. South African Forestry Journal, 1981, 116, 28-39.	0.2	8
125	The Influence of Aluminum on Iron Oxides. Part II. Preparation and Properties of Al-Substituted Hematites. Clays and Clay Minerals, 1979, 27, 105-112.	0.6	215
126	Amorphous and Crystalline Titanium and Iron-Titanium Oxides in Synthetic Preparations, at near Ambient Conditions, and in Soil Clays. Clays and Clay Minerals, 1978, 26, 189-201.	0.6	51

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127	Occurrence Of Lepidocrocite And its Association With Goethite in Natal Soils. Soil Science Society of America Journal, 1977, 41, 1013-1018.	1.2	54
128	Al Substitution and Differential Disorder in Soil Hematites. Clays and Clay Minerals, 1977, 25, 373-374.	0.6	48
129	Titanium and Zirconium Minerals. Soil Science Society of America Book Series, 0, , 667-690.	0.3	44
130	Iron Oxides. Soil Science Society of America Book Series, 0, , 323-366.	0.3	34
131	Titanium and Zirconium Minerals. Soil Science Society of America Book Series, 0, , 1131-1205.	0.3	13