

Michel Cathelineau

List of Publications by Year in descending order

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108
papers

3,834
citations

109137

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h-index

143772

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111
all docs

111
docs citations

111
times ranked

2646
citing authors

#	ARTICLE	IF	CITATIONS
1	A chlorite solid solution geothermometer the Los Azufres (Mexico) geothermal system. Contributions To Mineralogy and Petrology, 1985, 91, 235-244.	1.2	560
2	The Hydrothermal Alkali Metasomatism Effects on Granitic Rocks: Quartz Dissolution and Related Subsolidus Changes. Journal of Petrology, 1986, 27, 945-965.	1.1	126
3	Giant uranium deposits formed from exceptionally uranium-rich acidic brines. Nature Geoscience, 2012, 5, 142-146.	5.4	107
4	Low-temperature chlorite geothermometry: a graphical representation based on a $T-R_2+Si$ diagram. European Journal of Mineralogy, 2015, 27, 617-626.	0.4	105
5	An evaporated seawater origin for the ore-forming brines in unconformity-related uranium deposits (Athabasca Basin, Canada): Cl/Br and $\delta^{37}Cl$ analysis of fluid inclusions. Geochimica Et Cosmochimica Acta, 2011, 75, 2792-2810.	1.6	104
6	Mixing of metamorphic and surficial fluids during the uplift of the Hercynian upper crust: consequences for gold deposition. Chemical Geology, 2003, 194, 119-141.	1.4	95
7	Improvements in clathrate modelling: I. The H ₂ O-CO ₂ system with various salts. Geochimica Et Cosmochimica Acta, 1996, 60, 1657-1681.	1.6	90
8	Paleo-fluid composition determined from individual fluid inclusions by Raman and LIBS: Application to mid-proterozoic evaporitic Na-Ca brines (Alligator Rivers Uranium Field, northern territories) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307	1.1	87
9	Migration of brines in the basement rocks of the Athabasca Basin through microfracture networks (P-Patch U deposit, Canada). Lithos, 2010, 115, 121-136.	0.6	66
10	A reinvestigation of smectite illitization in experimental hydrothermal conditions: Results from X-ray diffraction and transmission electron microscopy. American Mineralogist, 2011, 96, 207-223.	0.9	66
11	Effects of Temperature, pH, and Iron/Clay and Liquid/Clay Ratios on Experimental Conversion of Dioctahedral Smectite to Berthierine, Chlorite, Vermiculite, or Saponite. Clays and Clay Minerals, 2010, 58, 280-291.	0.6	65
12	A detailed fluid inclusion study in silicified breccias from the Kombolgie sandstones (Northern) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 deposits. Journal of Geochemical Exploration, 2003, 80, 259-275.	1.5	64
13	Metallogensis of the French part of the Variscan orogen. Part II: Time-space relationships between U, Au and Sn-W ore deposition and geodynamic events mineralogical and U-Pb data. Tectonophysics, 1990, 177, 59-79.	0.9	63
14	Evidence for Li-rich brines and early magmatic fluid-rock interaction in the Larderello geothermal system. Geochimica Et Cosmochimica Acta, 1994, 58, 1083-1099.	1.6	62
15	Metal-rich fluid inclusions provide new insights into unconformity-related U deposits (Athabasca) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 307	1.7	62
16	A major Late Jurassic fluid event at the basin/basement unconformity in western France: $^{40}Ar/^{39}Ar$ and ^{K}Ar dating, fluid chemistry, and related geodynamic context. Chemical Geology, 2012, 322-323, 99-120.	1.4	60
17	Clay minerals trap hydrogen in the Earth's crust: Evidence from the Cigar Lake uranium deposit, Athabasca. Earth and Planetary Science Letters, 2018, 493, 186-197.	1.8	60
18	Boron- and magnesium-rich marine brines at the origin of giant unconformity-related uranium deposits: ^{11}B evidence from Mg-tourmalines. Geology, 2012, 40, 231-234.	2.0	57

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19	Penetration of surface-evaporated brines into the Proterozoic basement and deposition of Co and Ag at Bou Azzer (Morocco): Evidence from fluid inclusions. <i>Journal of African Earth Sciences</i> , 2005, 41, 25-39.	0.9	55
20	The relative distribution of critical (Sc, REE) and transition metals (Ni, Co, Cr, Mn, V) in some Ni-laterite deposits of New Caledonia. <i>Journal of Geochemical Exploration</i> , 2019, 197, 93-113.	1.5	50
21	Conditions of gold-bearing arsenopyrite crystallization in the Villeranges Basin, Marche-Combrailles shear zone, France; a mineralogical and fluid inclusion study. <i>Economic Geology</i> , 1989, 84, 1340-1362.	1.8	46
22	Microfracturing and fluid mixing in granites: Wâ€“(Sn) ore deposition at Vaulry (NW French Massif) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.9	46
23	Reconstruction of low temperature (<100Â°Â°C) burial in sedimentary basins: A comparison of geothermometer in the intracontinental Paris Basin. <i>Marine and Petroleum Geology</i> , 2014, 53, 71-87.	1.5	46
24	Pressure fluctuation during uplift of the Northern Apennines (Italy): a fluid inclusions study. <i>Tectonophysics</i> , 2001, 341, 121-139.	0.9	45
25	Remobilisation of base metals and gold by Variscan metamorphic fluids in the south Iberian pyrite belt: evidence from the Tharsis VMS deposit. <i>Chemical Geology</i> , 2003, 194, 143-165.	1.4	45
26	Temperature of paleo- to modern self-sealing within a continental rift basin: The fluid inclusion data (Soultz-sous-ForÃ¢ts, Rhine graben, France). <i>European Journal of Mineralogy</i> , 1996, 8, 1065-1080.	0.4	45
27	U redox fronts and kaolinisation in basement-hosted unconformity-related U ores of the Athabasca Basin (Canada): late U remobilisation by meteoric fluids. <i>Mineralium Deposita</i> , 2011, 46, 105-135.	1.7	44
28	From evaporated seawater to uranium-mineralizing brines: Isotopic and trace element study of quartzâ€“dolomite veins in the Athabasca system. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 113, 38-59.	1.6	44
29	Syn-tectonic, meteoric waterâ€“derived carbonation of the New Caledonia peridotite nappe. <i>Geology</i> , 2013, 41, 1063-1066.	2.0	41
30	Boiling and fluid mixing in the chlorite zone of the Larderello geothermal system. <i>Chemical Geology</i> , 1999, 154, 237-256.	1.4	38
31	Geometry and Pâ€“Vâ€“Tâ€“X conditions of microfissural ore fluid migration: the Mokrsko gold deposit (Bohemia). <i>Chemical Geology</i> , 2001, 173, 207-225.	1.4	38
32	Dissolutionâ€“precipitation processes governing the carbonation and silicification of the serpentinite sole of the New Caledonia ophiolite. <i>Contributions To Mineralogy and Petrology</i> , 2014, 167, 1.	1.2	38
33	Formation of U-rich mineralizing fluids through basinal brine migration within basement-hosted shear zones: A large-scale study of the fluid chemistry around the unconformity-related Cigar Lake U deposit (Saskatchewan, Canada). <i>Chemical Geology</i> , 2019, 508, 116-143.	1.4	37
34	Dating multistage paleofluid percolations: A K-Ar and 18O/16O study of fracture illites from altered Hercynian plutonites at the basement/cover interface (Poitou High, France). <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 2529-2542.	1.6	36
35	Basinal Brines at the Origin of the Imiter Ag-Hg Deposit (Anti-Atlas, Morocco): Evidence from LA-ICP-MS Data on Fluid Inclusions, Halogen Signatures, and Stable Isotopes (H, C, O). <i>Economic Geology</i> , 2016, 111, 1753-1781.	1.8	36
36	Nickel dispersion and enrichment at the bottom of the regolith: formation of pimelite target-like ores in rock block joints (Koniambo Ni deposit, New Caledonia). <i>Mineralium Deposita</i> , 2016, 51, 271-282.	1.7	36

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37	Fluid inclusion evidence of the differential migration of H ₂ and O ₂ in the McArthur River unconformity-type uranium deposit (Saskatchewan, Canada). Possible role on post-ore modifications of the host rocks. <i>Journal of Geochemical Exploration</i> , 2003, 78-79, 525-530.	1.5	35
38	Detailed determination of palaeofluid chemistry: an integrated study of sulphate-volatile rich brines and aquo-carbonic fluids in quartz veins from Ouro Fino (Brazil). <i>Chemical Geology</i> , 1999, 154, 179-192.	1.4	34
39	Noble gases (Ar, Kr, Xe) and halogens (Cl, Br, I) in fluid inclusions from the Athabasca Basin (Canada): Implications for unconformity-related U deposits. <i>Precambrian Research</i> , 2014, 247, 110-125.	1.2	34
40	Chronology of fracture sealing under a meteoric fluid environment: Microtectonic and isotopic evidence of major Cainozoic events in the eastern Paris Basin (France). <i>Tectonophysics</i> , 2010, 490, 214-228.	0.9	33
41	Paired stable isotopes (O, C) and clumped isotope thermometry of magnesite and silica veins in the New Caledonia Peridotite Nappe. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 183, 234-249.	1.6	33
42	Brine-rock interaction in the Athabasca basement (McArthur River U deposit, Canada): consequences for fluid chemistry and uranium uptake. <i>Terra Nova</i> , 2010, 22, no-no.	0.9	32
43	Revealing the conditions of Ni mineralization in the laterite profiles of New Caledonia: Insights from reactive geochemical transport modelling. <i>Chemical Geology</i> , 2017, 466, 274-284.	1.4	32
44	The granite hosted gold deposit of Moulin de Ch ¹ / ₂ ni (Saint-Yrieix district, Massif Central, France): petrographic, structural, fluid inclusion and oxygen isotope constraints. <i>Mineralium Deposita</i> , 2004, 39, 265-281.	1.7	31
45	Impact of basin burial and exhumation on Jurassic carbonates diagenesis on both sides of a thick clay barrier (Paris Basin, NE France). <i>Marine and Petroleum Geology</i> , 2014, 53, 44-70.	1.5	31
46	Post-crystallization alteration of natural uraninites: Implications for dating, tracing, and nuclear forensics. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 249, 138-159.	1.6	31
47	Multistage crack seal vein and hydrothermal Ni enrichment in serpentinized ultramafic rocks (Koniombo massif, New Caledonia). <i>Mineralium Deposita</i> , 2017, 52, 945-960.	1.7	28
48	The internal deformation of the Peridotite Nappe of New Caledonia: A structural study of serpentine-bearing faults and shear zones in the Koniombo Massif. <i>Journal of Structural Geology</i> , 2016, 85, 51-67.	1.0	27
49	The Role of Organic Matter on Uranium Precipitation in Zoovch Ovoo, Mongolia. <i>Minerals (Basel)</i> , 2017, 7, 107-122.	0.8	27
50	Fluid inclusions in granites and their relationships with present-day groundwater chemistry. <i>European Journal of Mineralogy</i> , 1998, 10, 1215-1226.	0.4	27
51	Uranium mineralization in the Alum Shale Formation (Sweden): Evolution of a U-rich marine black shale from sedimentation to metamorphism. <i>Ore Geology Reviews</i> , 2017, 88, 71-98.	1.1	26
52	Fluid pressure variations in relation to multistage deformation and uplift: a fluid inclusion study of Au quartz veins. <i>European Journal of Mineralogy</i> , 1993, 5, 107-122.	0.4	26
53	Raman spectra of Ni ²⁺ Mg keralite: effect of Ni ²⁺ Mg substitution on O-H stretching vibrations. <i>Journal of Raman Spectroscopy</i> , 2015, 46, 933-940.	1.2	24
54	3D modeling of the laterites on top of the Koniombo Massif, New Caledonia: refinement of the per descensum lateritic model for nickel mineralization. <i>Mineralium Deposita</i> , 2017, 52, 961-978.	1.7	24

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55	Rutile from Panasqueira (Central Portugal): An Excellent Pathfinder for Wolframite Deposition. Minerals (Basel, Switzerland), 2019, 9, 9.	0.8	24
56	Characterization of Weda Bay nickel laterite ore from Indonesia. Journal of Geochemical Exploration, 2019, 196, 270-281.	1.5	24
57	Experimental illitization of smectite in a K-rich solution. European Journal of Mineralogy, 2001, 13, 829-840.	0.4	23
58	Downward penetration and mixing of sedimentary brines and dilute hot waters at 5â€¦.km depth in the granite basement at Soultz-sous-ForÃ¢ts (Rhine graben, France). Comptes Rendus - Geoscience, 2010, 342, 560-565.	0.4	23
59	Poultry litter ash characterisation and recovery. Waste Management, 2020, 111, 10-21.	3.7	22
60	Reconstructing fluid-flow events in Lower-Triassic sandstones of the eastern Paris Basin by elemental tracing and isotopic dating of nanometric illite crystals. Geochimica Et Cosmochimica Acta, 2016, 176, 157-184.	1.6	21
61	Alpine metamorphism and veining in the Zentralgneis Complex of the SW Tauern Window: a model of fluidâ€“rock interactions based on fluid inclusions. Tectonophysics, 2001, 336, 121-136.	0.9	20
62	Active contact metamorphism and CO2â€“CH4 fluid production in the Larderello geothermal field (Italy) at depths between 2.3 and 4Åkm. Chemical Geology, 2007, 237, 303-328.	1.4	20
63	The emplacement of the Peridotite Nappe of New Caledonia and its bearing on the tectonics of obduction. Tectonics, 2016, 35, 3070-3094.	1.3	19
64	Mineralogical Evolution of a Claystone After Reaction With Iron Under Thermal Gradient. Clays and Clay Minerals, 2012, 60, 443-455.	0.6	18
65	Uraniferous bitumen nodules in the Talvivaara Niâ€“Znâ€“Cuâ€“Co deposit (Finland): influence of metamorphism on uranium mineralization in black shales. Mineralium Deposita, 2014, 49, 513-533.	1.7	18
66	Hot Fluid Flows Around A Major Fault Identified By Paleothermometric Studies (Tim MersoÃ¢ Basin,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.8	18
67	C-O-H-N fluids circulations and graphite precipitation in reactivated Hudsonian shear zones during basement uplift of the Wollaston-Mudjatik Transition Zone: Example of the Cigar Lake U deposit. Lithos, 2017, 294-295, 222-245.	0.6	18
68	Mineralogy and ore fluid chemistry of the Roc Blanc Ag deposit, Jebilet Hercynian massif, Morocco. Journal of African Earth Sciences, 2017, 127, 175-193.	0.9	18
69	Multistage evolution of the Pierres-PlantÃ¢es uranium ore deposit (Margeride, France): evidence from mineralogy and U-Pb systematics. European Journal of Mineralogy, 1991, 3, 85-104.	0.4	18
70	Serpentinization of New Caledonia peridotites: from depth to (sub-)surface. Contributions To Mineralogy and Petrology, 2020, 175, 1.	1.2	17
71	In-situ Isotopic and Chemical Study of Pyrite from Chu-Sarysu (Kazakhstan) Roll-front Uranium Deposit. Procedia Earth and Planetary Science, 2015, 13, 207-210.	0.6	16
72	Weathering processes and crystal chemistry of Ni-bearing minerals in saprock horizons of New Caledonia ophiolite. Journal of Geochemical Exploration, 2019, 198, 82-99.	1.5	16

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73	The Panasqueira Rare Metal Granite Suites and Their Involvement in the Genesis of the World-Class Panasqueira Wâ€“Snâ€“Cu Vein Deposit: A Petrographic, Mineralogical, and Geochemical Study. <i>Minerals</i> (Basel, Switzerland), 2020, 10, 562.	0.8	16
74	Brines related to Ag deposition in the Zgounder silver deposit (Anti-Atlas, Morocco). <i>European Journal of Mineralogy</i> , 1998, 10, 1201-1214.	0.4	16
75	Contribution of long-term hydrothermal experiments for understanding the smectite-to-chlorite conversion in geological environments. <i>Contributions To Mineralogy and Petrology</i> , 2016, 171, 1.	1.2	15
76	Nature and Origin of Mineralizing Fluids in Hyperextensional Systems: The Case of Cretaceous Mg Metasomatism in the Pyrenees. <i>Geofluids</i> , 2019, 2019, 1-18.	0.3	14
77	Effect of a Thermal Gradient on Iron-Clay Interactions. <i>Clays and Clay Minerals</i> , 2010, 58, 667-681.	0.6	13
78	Uranium deposits of Franceville basin (Gabon): Role of organic matter and oil cracking on uranium mineralization. <i>Ore Geology Reviews</i> , 2020, 123, 103579.	1.1	13
79	Monazite Alteration in H ₂ O ± HCl ± NaCl ± CaCl ₂ Fluids at 150 °C and psat: Implications for Uranium Deposits. <i>Minerals</i> (Basel, Switzerland), 2015, 5, 693-706.	0.8	13
80	Vertical and lateral changes in organic matter from the Mesozoic, eastern Paris Basin (France): Variability of sources and burial history. <i>International Journal of Coal Geology</i> , 2011, 88, 163-178.	1.9	12
81	A multi-analytical approach to the study of uranium-ore agglomerate structure and porosity during heap leaching. <i>Hydrometallurgy</i> , 2017, 171, 33-43.	1.8	12
82	High pressure and temperatures during the early stages of tungsten deposition at Panasqueira revealed by fluid inclusions in topaz. <i>Ore Geology Reviews</i> , 2020, 126, 103741.	1.1	12
83	Ilmenites and their alteration products, sinkholes for uranium and radium in roll-front deposits after the example of South Tortkuduk (Kazakhstan). <i>Journal of Geochemical Exploration</i> , 2019, 206, 106343.	1.5	11
84	Oxfordian sedimentary dykes : tectonic and diagenetic implications for the eastern Paris basin. <i>Bulletin - Societie Geologique De France</i> , 2004, 175, 595-605.	0.9	9
85	Tungsten (VI) speciation in hydrothermal solutions up to 400°C as revealed by in-situ Raman spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 317, 306-324.	1.6	9
86	Evolution of porewater composition through time in limestone aquifers: Salinity and D/H of fluid inclusion water in authigenic minerals (Jurassic of the eastern Paris Basin, France). <i>Chemical Geology</i> , 2015, 417, 210-227.	1.4	8
87	Reappraisal of the Glâ€“O Reference Material for Kâ€“Ar Dating: New Insight from Microanalysis, Singleâ€“Grain and Milligram Ar Measurements. <i>Geostandards and Geoanalytical Research</i> , 2020, 44, 287-306.	1.7	8
88	Evaporitic brines and copper-sulphide ore genesis at Jbel HaÃ“mer (Central Jebilet, Morocco). <i>Ore Geology Reviews</i> , 2021, 129, 103920.	1.1	7
89	Incineration of Aviary Manure: The Case Studies of Poultry Litter and Laying Hens Manure. <i>Waste and Biomass Valorization</i> , 2022, 13, 3335-3357.	1.8	7
90	Conditioning of poultry manure ash for subsequent phosphorous separation and assessment for a process design. <i>Sustainable Materials and Technologies</i> , 2022, 31, e00377.	1.7	6

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91	Reactive Transport Modeling Applied to Ni Laterite Ore Deposits in New Caledonia: Role of Hydrodynamic Factors and Geological Structures in Ni Mineralization. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 1425-1440.	1.0	5
92	Tracing metallic pre-concentrations in the Limousin ophiolite-derived rocks and Variscan granites (French Massif Central). <i>Lithos</i> , 2020, 356-357, 105345.	0.6	5
93	Conditions for uranium biomineralization during the formation of the Zoovch Ovoo roll-front-type uranium deposit in East Gobi Basin, Mongolia. <i>Ore Geology Reviews</i> , 2021, 138, 104351.	1.1	5
94	Multiscale physical-chemical analysis of the impact of fracture networks on weathering: Application to nickel redistribution in the formation of Ni-laterite ores, New Caledonia. <i>Ore Geology Reviews</i> , 2022, 147, 104971.	1.1	5
95	Comment on the paper by Sanchez-España et al.: source and evolution of ore-forming hydrothermal fluids in the northern Iberian pyrite belt massive sulphide deposits (SW Spain): evidence from fluid inclusions and stable isotopes (<i>Mineralium Deposita</i> 38: 519-537). <i>Mineralium Deposita</i> , 2006, 40, 742-748.	1.7	4
96	Basinal Brines at the Origin of the Imiter Ag-Hg Deposit (Anti-Atlas, Morocco): Evidence from LA-ICP-MS Data on Fluid Inclusions, Halogen Signatures, and Stable Isotopes (H, C, O) – A Reply. <i>Economic Geology</i> , 2017, 112, 1273-1277.	1.8	4
97	Metamorphic brines and no surficial fluids trapped in the detachment footwall of a Metamorphic Core Complex (Nevado-Filábride units, Betics, Spain). <i>Tectonophysics</i> , 2018, 727, 56-72.	0.9	4
98	A study of uranium-ore agglomeration parameters and their implications during heap leaching. <i>Minerals Engineering</i> , 2018, 127, 22-31.	1.8	4
99	An integrated multiscale approach to heap leaching of uranium-ore agglomerates. <i>Hydrometallurgy</i> , 2018, 178, 274-282.	1.8	4
100	Cenozoic oxidation episodes in West Africa at the origin of the in situ supergene mineral redistribution of the primary uranium orebodies (Imouraren deposit, Tim Mersoá Basin, Northern Niger). <i>Journal of African Earth Sciences</i> , 2017, 137, 104-114.	0.7	10
101	Near real-time management of spectral interferences with portable X-ray fluorescence spectrometers: application to Sc quantification in nickeliferous laterite ores. <i>Geochemistry: Exploration, Environment, Analysis</i> , 2021, 21, .	0.5	4
102	Evaluation of Sc Concentrations in Ni-Co Laterites Using Al as a Geochemical Proxy. <i>Minerals (Basel)</i> , 2021, 11, 1077.	0.8	4
103	Dolomite cements in Cenomanian continental sand deposits: Time evolution and significance (Zoovch). <i>Journal of African Earth Sciences</i> , 2021, 191, 107843.	1.0	1
104	Evaporitic brines and copper-sulphide ore genesis at Jbel Haámer (Central Jebilet, Morocco): A reply. <i>Ore Geology Reviews</i> , 2021, 140, 104409.	1.1	1
105	Origin of 87Sr enrichment in calcite cements in Jurassic limestones (Eastern Paris Basin, France). <i>Applied Geochemistry</i> , 2021, 136, 105131.	1.4	1
106	Significance of H2 and CO release during thermal treatment of natural phyllosilicate-rich rocks. <i>Chemical Geology</i> , 2022, 588, 120647.	1.4	1
107	Comment on the paper by Sanchez-España et al.: Source and evolution of ore-forming hydrothermal fluids in the northern Iberian Pyrite Belt massive sulphide deposits (SW Spain): evidence from fluid inclusions and stable isotopes (<i>Mineralium Deposita</i> 38:519-537). <i>Mineralium Deposita</i> , 2006, 40, 742.	1.7	0
108	The Tim Mersoá Basin uranium deposits (Northern Niger): Geochronology and genetic model. <i>Ore Geology Reviews</i> , 2022, 145, 104905.	1.1	0