

Bruno Lanson

List of Publications by Year in descending order

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53794

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101
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times ranked

5221
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of cobalt doping on the reactivity of hausmannite for As(III) oxidation and As(V) adsorption. <i>Journal of Environmental Sciences</i> , 2022, 122, 217-226.	6.1	5
2	Effect and fate of Ni during aging and thermal-induced phylломanganate-to-tectomanganate transformation. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 333, 200-215.	3.9	2
3	Adsorption of Pharmaceuticals onto Smectite Clay Minerals: A Combined Experimental and Theoretical Study. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 62.	2.0	15
4	Transformation of the phylломanganate vernadite to tectomanganates with small tunnel sizes: Favorable geochemical conditions and fate of associated Co. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 295, 224-236.	3.9	12
5	Direct dating of brittle extensional deformation contemporaneous of Neogene exhumation of the internal zones of the Rif Chain. <i>Tectonophysics</i> , 2021, 807, 228800.	2.2	2
6	Effects of Co doping on the structure and physicochemical properties of hausmannite (Mn ₃ O ₄) and its transformation during aging. <i>Chemical Geology</i> , 2021, 582, 120448.	3.3	9
7	Characterization and origin of the Mn-rich patinas formed on Lunãville chãteau sandstones. <i>European Journal of Mineralogy</i> , 2021, 33, 687-702.	1.3	2
8	Transformation of Ni-containing birnessite to tectomanganate: Influence and fate of weakly bound Ni(II) species. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 271, 96-115.	3.9	11
9	Smectite quantification in hydrothermally altered volcanic rocks. <i>Geothermics</i> , 2020, 85, 101748.	3.4	8
10	Coupled morphological and structural evolution of γ -MnO ₂ to δ -MnO ₂ through multistage oriented assembly processes: the role of Mn(III). <i>Environmental Science: Nano</i> , 2020, 7, 238-249.	4.3	10
11	Influence of layer charge on hydration properties of synthetic octahedrally-charged Na-saturated trioctahedral swelling phyllosilicates. <i>Applied Clay Science</i> , 2020, 184, 105404.	5.2	18
12	Hydration of Na-saturated synthetic stevensite, a peculiar trioctahedral smectite. <i>Clay Minerals</i> , 2020, 55, 229-237.	0.6	0
13	POLYMORPH AND POLYTYPE IDENTIFICATION FROM INDIVIDUAL MICA PARTICLES USING SELECTED AREA ELECTRON DIFFRACTION. <i>Clays and Clay Minerals</i> , 2020, 68, 334-346.	1.3	2
14	Highly enhanced oxidation of arsenite at the surface of birnessite in the presence of pyrophosphate and the underlying reaction mechanisms. <i>Water Research</i> , 2020, 187, 116420.	11.3	17
15	A quantitative and mechanistic model for the coupling between chemistry and clay hydration. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 283, 124-135.	3.9	8
16	Formation and transformation of schwertmannite through direct Fe ³⁺ hydrolysis under various geochemical conditions. <i>Environmental Science: Nano</i> , 2020, 7, 2385-2398.	4.3	14
17	Mineralogical differences in a temperate cultivated soil arising from different agronomic processes and plant K-uptake. <i>Geoderma</i> , 2019, 347, 210-219.	5.1	14
18	Effects of Mn ²⁺ , Ni ²⁺ , and Cu ²⁺ on the Formation and Transformation of Hydrosulfate Green Rust: Reaction Processes and Underlying Mechanisms. <i>ACS Earth and Space Chemistry</i> , 2019, 3, 519-530.	2.7	14

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19	Water Trapping Dynamics in Carbohydrate-Populated Smectite Interlayer Nanopores. <i>Journal of Physical Chemistry C</i> , 2019, 123, 28816-28827.	3.1	5
20	Hydration of Ti_3C_2Tx MXene: An Interstratification Process with Major Implications on Physical Properties. <i>Chemistry of Materials</i> , 2019, 31, 454-461.	6.7	70
21	Transformation of Co-containing birnessite to todorokite: Effect of Co on the transformation and implications for Co mobility. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 246, 21-40.	3.9	38
22	Crystal growth and aggregation in suspensions of $\hat{\Gamma}$ - MnO_2 nanoparticles: implications for surface reactivity. <i>Environmental Science: Nano</i> , 2018, 5, 497-508.	4.3	48
23	Rheological properties of clayey soils originating from flow-like landslides. <i>Landslides</i> , 2018, 15, 1615-1630.	5.4	33
24	Reply to the "Comment on "Crystal growth and aggregation in suspensions of $\hat{\Gamma}$ - MnO_2 nanoparticles: implications for surface reactivity" by A. Manceau, <i>Environ. Sci.: Nano</i> , 2018, 5, DOI: 10.1039/C8EN00126J. <i>Environmental Science: Nano</i> , 2018, 5, 2201-2203.	4.3	1
25	Classical Polarizable Force Field to Study Hydrated Hectorite: Optimization on DFT Calculations and Validation against XRD Data. <i>Minerals (Basel, Switzerland)</i> , 2018, 8, 205.	2.0	10
26	Soil Development under Continuous Agriculture at the Morrow Plots Experimental Fields from X-ray Diffraction Profile Modelling. <i>Soil Systems</i> , 2018, 2, 46.	2.6	12
27	Nucleation and growth of feitknechtite from nanocrystalline vernadite precursor. <i>European Journal of Mineralogy</i> , 2017, 29, 767-776.	1.3	21
28	Enhanced interlayer trapping of a tetracycline antibiotic within montmorillonite layers in the presence of Ca and Mg. <i>Journal of Colloid and Interface Science</i> , 2016, 464, 153-159.	9.4	64
29	Phosphorus speciation and micro-scale spatial distribution in North-American temperate agricultural soils from micro X-ray fluorescence and X-ray absorption near-edge spectroscopy. <i>Plant and Soil</i> , 2016, 401, 7-22.	3.7	31
30	Cryptomelane formation from nanocrystalline vernadite precursor: a high energy X-ray scattering and transmission electron microscopy perspective on reaction mechanisms. <i>Geochemical Transactions</i> , 2015, 16, 12.	0.7	37
31	Influence of Tetrahedral Layer Charge on the Organization of Interlayer Water and Ions in Synthetic Na-Saturated Smectites. <i>Journal of Physical Chemistry C</i> , 2015, 119, 4158-4172.	3.1	74
32	Experimental aluminization of vermiculite interlayers: An X-ray diffraction perspective on crystal chemistry and structural mechanisms. <i>Geoderma</i> , 2015, 249-250, 28-39.	5.1	25
33	Solid-state transformation of nanocrystalline phylломanganate into tectomanganate: influence of initial layer and interlayer structure. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2014, 70, 828-838.	1.1	51
34	Interlayer structure model of tri-hydrated low-charge smectite by X-ray diffraction and Monte Carlo modeling in the Grand Canonical ensemble. <i>American Mineralogist</i> , 2014, 99, 1724-1735.	1.9	37
35	Smectite fluorination and its impact on interlayer water content and structure: A way to fine tune the hydrophilicity of clay surfaces?. <i>Microporous and Mesoporous Materials</i> , 2013, 181, 233-247.	4.4	53
36	On the nature of structural disorder in calcium silicate hydrates with a calcium/silicon ratio similar to tobermorite. <i>Cement and Concrete Research</i> , 2013, 52, 31-37.	11.0	90

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37	Short-range and long-range order of phyllosilicate nanoparticles determined using high-energy X-ray scattering. <i>Journal of Applied Crystallography</i> , 2013, 46, 193-209.	4.5	70
38	Interstratification Patterns from the pH-Dependent Intercalation of a Tetracycline Antibiotic within Montmorillonite Layers. <i>Langmuir</i> , 2013, 29, 4492-4501.	3.5	28
39	Experimental Study of the Stability and Phase Relations of Clays at High Temperature in a Thermal Gradient. <i>Clays and Clay Minerals</i> , 2012, 60, 200-225.	1.3	21
40	Zn sorption modifies dynamically the layer and interlayer structure of vermiculite. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 85, 302-313.	3.9	110
41	Experimental investigation of smectite interaction with metal iron at 80 °C: Structural characterization of newly formed Fe-rich phyllosilicates. <i>American Mineralogist</i> , 2012, 97, 864-871.	1.9	46
42	Fast Precipitation of Acicular Goethite from Ferric Hydroxide Gel under Moderate Temperature (30 °C) from Aqueous Solution. <i>Journal of Applied Crystallography</i> , 2011, 44, 1075-1084.	3.0	34
43	Hydration Properties and Interlayer Organization of Water and Ions in Synthetic Na-Smectite with Tetrahedral Layer Charge. Part 2. Toward a Precise Coupling between Molecular Simulations and Diffraction Data. <i>Journal of Physical Chemistry C</i> , 2011, 115, 1867-1881.	3.1	134
44	Polytype and polymorph identification of finely divided aluminous dioctahedral mica individual crystals with SAED. Kinematical and dynamical electron diffraction. <i>Physics and Chemistry of Minerals</i> , 2011, 38, 435-448.	0.8	2
45	Aluminum extracts in Antarctic paleosols: Proxy data for organic compounds and bacteria and implications for Martian paleosols. <i>Sedimentary Geology</i> , 2011, 237, 84-94.	2.1	4
46	Modelling of X-ray diffraction profiles. <i>Journal of Applied Crystallography</i> , 2011, 44, 151-202.		13
47	Hydration Properties and Interlayer Organization of Water and Ions in Synthetic Na-Smectite with Tetrahedral Layer Charge. Part 1. Results from X-ray Diffraction Profile Modeling. <i>Journal of Physical Chemistry C</i> , 2010, 114, 4515-4526.	3.1	189
48	Structure of nanocrystalline phyllosilicates produced by freshwater fungi. <i>American Mineralogist</i> , 2010, 95, 1608-1616.	1.9	138
49	Interactions of Oxytetracycline with a Smectite Clay: A Spectroscopic Study with Molecular Simulations. <i>Environmental Science & Technology</i> , 2010, 44, 7839-7845.	10.0	159
50	Advances in characterization of soil clay mineralogy using X-ray diffraction: from decomposition to profile fitting. <i>European Journal of Soil Science</i> , 2009, 60, 1093-1105.	3.9	56
51	Selectivity of Na ⁺ -montmorillonite in relation with the concentration of bivalent cation (Cu ²⁺ , Ca ²⁺), <i>Journal of Applied Crystallography</i> , 2009, 42, 1075-1084.	5.2	35
52	Charge location effect on the hydration properties of synthetic saponite and hectorite saturated by Na ⁺ , Ca ²⁺ cations: XRD investigation. <i>Applied Clay Science</i> , 2009, 46, 43-50.	5.2	28
53	Mercury speciation in a tropical soil association; Consequence of gold mining on Hg distribution in French Guiana. <i>Geoderma</i> , 2009, 153, 331-346.	5.1	93
54	Diagenetic smectite-to-illite transition in clay-rich sediments: A reappraisal of X-ray diffraction results using the multi-specimen method. <i>Numerische Mathematik</i> , 2009, 309, 476-516.	1.4	137

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55	Formation of Zn-Ca phyllosmectite nanoparticles in grass roots. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2478-2490.	3.9	74
56	Crystal structure of Ni-sorbed synthetic vernadite: a powder X-ray diffraction study. <i>Mineralogical Magazine</i> , 2008, 72, 1279-1291.	1.4	73
57	Investigation of dioctahedral smectite hydration properties by modeling of X-ray diffraction profiles: Influence of layer charge and charge location. <i>American Mineralogist</i> , 2007, 92, 1731-1743.	1.9	156
58	Birnessite polytype systematics and identification by powder X-ray diffraction. <i>American Mineralogist</i> , 2007, 92, 771-788.	1.9	114
59	Structure of the synthetic K-rich phyllosmectite birnessite obtained by high-temperature decomposition of KMnO ₄ . <i>Microporous and Mesoporous Materials</i> , 2007, 98, 267-282.	4.4	72
60	Structural model for the biogenic Mn oxide produced by <i>Pseudomonas putida</i> . <i>American Mineralogist</i> , 2006, 91, 489-502.	1.9	288
61	The fate of smectite in KOH solutions. <i>American Mineralogist</i> , 2006, 91, 1313-1322.	1.9	23
62	Structure of the {001} talc surface as seen by atomic force microscopy: comparison with X-ray and electron diffraction results. <i>European Journal of Mineralogy</i> , 2006, 18, 483-491.	1.3	16
63	Chemical signature of two Permian volcanic ash deposits within a bentonite bed from Melo, Uruguay. <i>Anais Da Academia Brasileira De Ciencias</i> , 2006, 78, 525-541.	0.8	19
64	Illite-smectite mixed-layer minerals in the hydrothermal alteration of volcanic rocks: II. One-dimensional HRTEM structure images and formation mechanisms. <i>Clays and Clay Minerals</i> , 2005, 53, 440-451.	1.3	28
65	Investigation of smectite hydration properties by modeling experimental X-ray diffraction patterns: Part I. Montmorillonite hydration properties. <i>American Mineralogist</i> , 2005, 90, 1358-1374.	1.9	429
66	Illite-smectite mixed-layer minerals in the hydrothermal alteration of volcanic rocks: I. One-dimensional XRD structure analysis and characterization of component layers. <i>Clays and Clay Minerals</i> , 2005, 53, 423-439.	1.3	39
67	Experimental evidence for Ca-chloride ion pairs in the interlayer of montmorillonite. An XRD profile modeling approach. <i>Clays and Clay Minerals</i> , 2005, 53, 348-360.	1.3	40
68	Experimental study of smectite interaction with metal Fe at low temperature: 1. Smectite destabilization. <i>Clays and Clay Minerals</i> , 2005, 53, 597-612.	1.3	102
69	New Insights on the Distribution of Interlayer Water in Bi-Hydrated Smectite from X-ray Diffraction Profile Modeling of 00l Reflections. <i>Chemistry of Materials</i> , 2005, 17, 3499-3512.	6.7	154
70	Influence of pH on the interlayer cationic composition and hydration state of Ca-montmorillonite: Analytical chemistry, chemical modelling and XRD profile modelling study. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2797-2812.	3.9	60
71	Structure of Birnessite Obtained from Decomposition of Permanganate under Soft Hydrothermal Conditions. 1. Chemical and Structural Evolution as a Function of Temperature. <i>Chemistry of Materials</i> , 2005, 17, 2959-2975.	6.7	89
72	Influence of the Outer Surface Layers of Crystals on the X-Ray Diffraction Intensity of Basal Reflections. <i>Clays and Clay Minerals</i> , 2004, 52, 680-692.	1.3	12

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73	Clay minerals in the Meuse-Haute Marne underground laboratory (France): Possible influence of organic matter on clay mineral evolution. <i>Clays and Clay Minerals</i> , 2004, 52, 515-532.	1.3	87
74	Structure of Synthetic K-Rich Birnessites Obtained by High-Temperature Decomposition of $KMnO_4$. 2. Phase and Structural Heterogeneities. <i>Chemistry of Materials</i> , 2004, 16, 1890-1905.	6.7	53
75	Natural speciation of Zn at the micrometer scale in a clayey soil using X-ray fluorescence, absorption, and diffraction. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 2467-2483.	3.9	156
76	Composition variation of illite-vermiculitesmectite mixed-layer minerals in a bentonite bed from Charente (France). <i>Clay Minerals</i> , 2004, 39, 317-332.	0.6	23
77	Structure of Synthetic K-rich Birnessite Obtained by High-Temperature Decomposition of $KMnO_4$. I. Two-Layer Polytype from 800 Å°C Experiment. <i>Chemistry of Materials</i> , 2003, 15, 4666-4678.	6.7	169
78	The smectitic minerals in a bentonite deposit from Melo (Uruguay). <i>Clay Minerals</i> , 2003, 38, 25-34.	0.6	25
79	Natural organic matter (NOM)-clay association and impact on Callovo-Oxfordian clay stability in high alkaline solution: Spectromicroscopic evidence. <i>European Physical Journal Special Topics</i> , 2003, 104, 413-416.	0.2	12
80	Speciation and mobility of Zn, Cu and Pb in a truck farming soil contaminated by sewage irrigation. <i>European Physical Journal Special Topics</i> , 2003, 107, 695-698.	0.2	1
81	Authigenic kaolin and illitic minerals during burial diagenesis of sandstones: a review. <i>Clay Minerals</i> , 2002, 37, 1-22.	0.6	265
82	Structure of heavy-metal sorbed birnessite: Part 1. Results from X-ray diffraction. <i>American Mineralogist</i> , 2002, 87, 1631-1645.	1.9	115
83	Structure of heavy-metal sorbed birnessite: Part 2. Results from electron diffraction. <i>American Mineralogist</i> , 2002, 87, 1646-1661.	1.9	42
84	Structure of synthetic Na-birnessite: Evidence for a triclinic one-layer unit cell. <i>American Mineralogist</i> , 2002, 87, 1662-1671.	1.9	152
85	Site Occupancies by Iron in Nontronites. <i>Clays and Clay Minerals</i> , 2002, 50, 223-239.	1.3	184
86	Structure of heavy metal sorbed birnessite. Part III: Results from powder and polarized extended X-ray absorption fine structure spectroscopy. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 2639-2663.	3.9	242
87	Experimental investigation of the interaction of clays with high-pH solutions: A case study from the Callovo-Oxfordian formation, Meuse-Haute Marne underground laboratory (France). <i>Clays and Clay Minerals</i> , 2002, 50, 633-646.	1.3	109
88	Vermiculitization of smectite interfaces and illite layer growth as a possible dual model for illite-smectite illitization in diagenetic environments: a synthesis. <i>Clay Minerals</i> , 2000, 35, 573-586.	0.6	30
89	Structure of H-exchanged hexagonal birnessite and its mechanism of formation from Na-rich monoclinic busierite at low pH. <i>American Mineralogist</i> , 2000, 85, 826-838.	1.9	191
90	Substructure and superstructure of four-layer Ca-exchanged birnessite. <i>American Mineralogist</i> , 1998, 83, 97-118.	1.9	51

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91	Late-Stage Diagenesis of Illitic Clay Minerals as Seen by Decomposition of X-ray Diffraction Patterns: Contrasted Behaviors of Sedimentary Basins with Different Burial Histories. <i>Clays and Clay Minerals</i> , 1998, 46, 69-78.	1.3	26
92	Kinetic constraints on illitization reactions and the effects of organic diagenesis in sandstone/shale sequences. <i>Applied Geochemistry</i> , 1997, 12, 23-35.	3.0	109
93	Decomposition of Experimental X-ray Diffraction Patterns (Profile Fitting): A Convenient Way to Study Clay Minerals. <i>Clays and Clay Minerals</i> , 1997, 45, 132-146.	1.3	204
94	Structural mechanism of Co (super 2+) oxidation by the phylломanganate buserite. <i>American Mineralogist</i> , 1997, 82, 1150-1175.	1.9	235
95	Experimental Determinations of the Coherent Scattering Domain Size Distribution of Natural Mica-Like Phases with the Warren-Averbach Technique. <i>Clays and Clay Minerals</i> , 1994, 42, 489-494.	1.3	15
96	Comparison of I/S Transformation and Maturity of Organic Matter at Elevated Temperatures. <i>Clays and Clay Minerals</i> , 1993, 41, 178-183.	1.3	26
97	Characterization of the End of Smectite-to-Illite Transformation: Decomposition of X-ray Patterns. <i>Clays and Clay Minerals</i> , 1992, 40, 40-52.	1.3	119
98	Decomposition of X-ray Diffraction Patterns: A Convenient Way to Describe Complex I/S Diagenetic Evolution. <i>Clays and Clay Minerals</i> , 1992, 40, 629-643.	1.3	55