Jana Madejova

List of Publications by Year
in descending order

99 papers	6,653 citations	76326 40 h-index	62596 80 g-index
99 all docs	99 docs citations	99 times ranked	5581 citing authors

#	Article	IF	Citations
1	FTIR techniques in clay mineral studies. Vibrational Spectroscopy, 2003, 31, 1-10.	2.2	1,457
2	Baseline Studies of the Clay Minerals Society Source Clays: Infrared Methods. Clays and Clay Minerals, 2001, 49, 410-432.	1.3	925
3	Comparative FT-IR study of structural modifications during acid treatment of dioctahedral smectites and hectorite. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1998, 54, 1397-1406.	3.9	265
4	The influence of structural Fe, Al and Mg on the infrared OH bands in spectra of dioctahedral smectites. Clay Minerals, 2002, 37, 607-616.	0.6	165
5	FTIR analyses of water in MX-80 bentonite compacted from high salinary salt solution systems. Applied Clay Science, 2002, 20, 255-271.	5.2	164
6	Structural characterization of organo-montmorillonites prepared from a series of primary alkylamines salts: Mid-IR and near-IR study. Applied Clay Science, 2019, 176, 11-20.	5.2	158
7	Near-infrared spectroscopy: A powerful tool in studies of acid-treated clay minerals. Vibrational Spectroscopy, 2009, 49, 211-218.	2.2	122
8	Dissolution of Hectorite in Inorganic Acids. Clays and Clay Minerals, 1996, 44, 228-236.	1.3	106
9	Characterisation of moderately acid-treated, size-fractionated montmorillonites using IR and MAS NMR spectroscopy and thermal analysis. Journal of Materials Chemistry, 1995, 5, 469-474.	6.7	104
10	Identification of components in smectite/kaolinite mixtures. Clay Minerals, 2002, 37, 377-388.	0.6	94
11	Preparation and properties of reduced-charge smectites â€“ a review. Clays and Clay Minerals, 2005, 53, 313-334.	1.3	90
12	Alteration of smectites by treatments with hydrochloric acid and sodium carbonate solutions. Applied Clay Science, 1990, 5, 113-122.	5.2	89
13	Effect of non-swelling layers on the dissolution of reduced-charge montmorillonite in hydrochloric acid. Clay Minerals, 1996, 31, 333-345.	0.6	89
14	Characterization of Octahedral Substitutions in Kaolinites Using Near Infrared Spectroscopy. Clays and Clay Minerals, 1999, 47, 103-108.	1.3	89
15	Characterization and Catalytic Activity of Acid-Treated, Size-Fractionated Smectites. Journal of Physical Chemistry B, 1997, 101, 5324-5331.	2.6	86
16	Laponite-derived porous clay heterostructures: II. FTIR study of the structure evolution. Microporous and Mesoporous Materials, 2010, 127, 237-244.	4.4	83
17	Reduction and Reoxidation of Nontronite: Questions of Reversibility. Clays and Clay Minerals, 1995, 43, 105-110.	1.3	81
18	Acid-Activated Organoclays:Â Preparation, Characterization and Catalytic Activity of Acid-Treated Tetraalkylammonium-Exchanged Smectites. Langmuir, 1997, 13, 6473-6479.	3.5	78

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19	Preparation and infrared spectroscopic characterization of reduced-charge montmorillonite with various Li contents. Clay Minerals, 1996, 31, 233-241.	0.6	77
20	FTIR spectroscopic characterization of thermally treated Cu2+, Cd2+, and Li+ montmorillonites. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 1999, 55, 2467-2476.	3.9	75
21	Correlation of catalytic activity with infra-red, 29Si MAS NMR and acidity data for HCl-treated fine fractions of montmorillonites. Applied Clay Science, 1995, 10, 219-230.	5.2	74
22	Methylene Blue Interactions with Reduced-Charge Smectites. Clays and Clay Minerals, 2001, 49, 244-254.	1.3	69
23	Structural Fe(III) reduction in smectites. Applied Clay Science, 2006, 34, 88-94.	5.2	69
24	Infrared spectroscopy of NH4+-bearing and saturated clay minerals: A review of the study of layer charge. Applied Clay Science, 2006, 34, 22-30.	5.2	67
25	Changes in layer charge of clay minerals upon acid treatment as obtained from their interactions with methylene blue. Applied Clay Science, 2012, 55, 100-107.	5.2	66
26	Influence of the layer charge density of smectites on the interaction with methylene blue. Journal of the Chemical Society, Faraday Transactions, 1998, 94, 3487-3492.	1.7	65
27	Acidity and catalytic activity of mildly acid-treated Mg-rich montmorillonite and hectorite. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 4207-4210.	1.7	61
28	Electronic and structural properties of reduced-charge montmorillonites. Applied Clay Science, 2000, 16, 257-271.	5.2	60
29	Characterization and crystal chemistry of an Fe-rich montmorillonite from Ã–lberg, Germany. Clay Minerals, 2002, 37, 283-297.	0.6	58
30	Laponite-derived porous clay heterostructures: I. Synthesis and physicochemical characterization. Microporous and Mesoporous Materials, 2010, 127, 228-236.	4.4	58
31	Effects of chemical composition and temperature of heating on the infrared spectra of Li-saturated dioctahedral smectites. (I) Mid-infrared region. Clay Minerals, 2000, 35, 739-751.	0.6	52
32	Weathering of smectite and illite- smectite under temperate climatic conditions. Clay Minerals, 2001, 36, 403-419.	0.6	52
33	Hydrothermal synthesis of ammonium illite. American Mineralogist, 1998, 83, 58-67.	1.9	51
34	Ammonium illite from anchimetamorphic shales associated with anthracite in the Zemplinicum of the western Carpathians. Clay Minerals, 1994, 29, 369-377.	0.6	48
35	Formation of boron nitride thin films on Î²-Si3N4 whiskers and Î±-SiC platelets by dip-coating. Journal of the European Ceramic Society, 1998, 18, 1037-1043.	5.7	48
36	Behaviour of Li+ and Cu2+ in heated montmorillonite: Evidence from far-, mid-, and near-IR regions. Vibrational Spectroscopy, 2006, 40, 80-88.	2.2	47

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37	Dry grinding of Ca and octadecyltrimethylammonium montmorillonite. Journal of Colloid and Interface Science, 2007, 316, 589-595.	9.4	45
38	Comparison of Imazalil Removal onto Montmorillonite and Nanomontmorillonite and Adsorption Surface Sites Involved: An Approach for Agricultural Wastewater Treatment. Industrial & Engineering Chemistry Research, 2015, 54, 1529-1538.	3.7	45
39	Characterization of systematically selected organo-montmorillonites for polymer nanocomposites. Applied Clay Science, 2011, 51, 438-444.	5.2	44
40	Alteration of fine fraction of bentonite from Kopernica (Slovakia) under acid treatment: A combined XRD, FTIR, MAS NMR and AES study. Applied Clay Science, 2018, 163, 204-213.	5.2	44
41	Theoretical and experimental study of montmorillonite intercalated with tetramethylammonium cation. Vibrational Spectroscopy, 2013, 66, 123-131.	2.2	42
42	Layer Charge Estimation of Smectites Using Infrared Spectroscopy. Clay Minerals, 1998, 33, 579-591.	0.6	41
43	Silicon carbide powder synthesis by chemical vapour deposition from silane/acetylene reaction system. Journal of the European Ceramic Society, 2000, 20, 1939-1946.	5.7	39
44	The effect of high pH alkaline solutions on the mineral stability of the Boom Clay â€“ Batch experiments at 60Â°C. Applied Geochemistry, 2010, 25, 825-840.	3.0	39
45	Near-Infrared Spectroscopic Analysis of Acid-Treated Organo-Clays. Clays and Clay Minerals, 2009, 57, 392-403.	1.3	37
46	Acid and alkali treatment of kaolins. Clay Minerals, 2009, 44, 511-523.	0.6	36
47	Near-infrared spectroscopy as an effective tool for monitoring the conformation of alkylammonium surfactants in montmorillonite interlayers. Vibrational Spectroscopy, 2016, 84, 44-52.	2.2	36
48	Acid dissolution of reduced-charge Li- and Ni-montmorillonites. Clays and Clay Minerals, 2003, 51, 133-142.	1.3	33
49	Laponite-derived porous clay heterostructures: III. The effect of alumination. Microporous and Mesoporous Materials, 2013, 175, 67-75.	4.4	33
50	Antibacterial kaolinite/urea/chlorhexidine nanocomposites: Experiment and molecular modelling. Applied Surface Science, 2014, 305, 783-791.	6.1	33
51	Reaction of smectites with iron in a nitrogen atmosphere at 75Â°C. Applied Clay Science, 2010, 50, 237-244.	5.2	31
52	Benefits of near-infrared spectroscopy for characterization of selected organo-montmorillonites. Vibrational Spectroscopy, 2011, 57, 8-8.	2.2	31
53	Bioleaching of clays and iron oxide coatings from quartz sands. Applied Clay Science, 2012, 61, 1-7.	5.2	31
54	Effect of heating temperature on Li-fixation, layer charge and properties of fine fractions of bentonites. Journal of Materials Chemistry, 2001, 11, 1452-1457.	6.7	29

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55	Location of Li(I), Cu(II) and Cd(II) in heated montmorillonite: evidence from specular reflectance infrared and electron spin resonance spectroscopies. Journal of Materials Chemistry, 1999, 9, 1553.	6.7	27
56	Effects of chemical composition and temperature of heating on the infrared spectra of Li-saturated dioctahedral smectites. (II) Near-infrared region. Clay Minerals, 2000, 35, 753-761.	0.6	27
57	Near-IR study of water adsorption on acid-treated montmorillonite. Vibrational Spectroscopy, 2012, 63, 360-366.	2.2	26
58	Hydration products at the blastfurnace slag aggregate - cement paste interface. Cement and Concrete Research, 1994, 24, 413-423.	11.0	25
59	Alterations of the surface and morphology of tetraalkyl-ammonium modified montmorillonites upon acid treatment. Journal of Colloid and Interface Science, 2011, 363, 213-222.	9.4	25
60	Degradation of surfactant-modified montmorillonites in HCl. Materials Chemistry and Physics, 2012, 134, 768-776.	4.0	24
61	Experimental interactions of Slovak bentonites with metallic iron. Geologica Carpathica, 2009, 60, 535-543.	0.7	21
62	Effect of chemical composition and swelling on acid dissolution of 2 : 1 clay minerals. Philosophical Magazine, 2010, 90, 2387-2397.	1.6	21
63	Influence of Grinding and Sonication on the Crystal Structure of Talc. Clays and Clay Minerals, 2015, 63, 311-327.	1.3	20
64	Partial Stabilization of Fe(II) in Reduced Ferruginous Smectite by Li Fixation. Clays and Clay Minerals, 1999, 47, 458-465.	1.3	19
65	Characterization of clays from the CorumbataÃ-formation used as raw material for ceramic industry in the Santa Gertrudes district, SÃ£o Paulo, Brazil. Applied Clay Science, 2016, 132-133, 232-242.	5.2	19
66	Structural and Spectroscopic Characterization of Montmorillonite Intercalated with N-Butylammonium Cations (N = 1-4) â€" Modeling and Experimental Study. Clays and Clay Minerals, 2016, 64, 401-412.	1.3	19
67	Behaviour of Ca(OH)2 in the presence of the set styrene-acrylate dispersion. Cement and Concrete Research, 1996, 26, 1727-1735.	11.0	18
68	Synthesis and characterization of low dimensional ZnS- and PbS-semiconductor particles on a montmorillonite template. Physical Chemistry Chemical Physics, 2010, 12, 14236.	2.8	18
69	The effect of acid treatment on the structure and surface acidity of tetraalkylammonium-montmorillonites. Journal of Colloid and Interface Science, 2013, 395, 166-175.	9.4	18
70	Spectroscopic study of water adsorption on Li+, TMA+ and HDTMA+ exchanged montmorillonite. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 149, 751-761.	3.9	18
71	Comparative study of alkylammonium- and alkylphosphonium-based analogues of organo-montmorillonites. Applied Clay Science, 2021, 200, 105894.	5.2	18
72	Reduction of Fe(III) in griffithite. Clay Minerals, 2000, 35, 625-634.	0.6	17

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73	Mineral stability of Fe-rich bentonite in the Mock-Up-CZ experiment. Geologica Carpathica, 2009, 60, 431-436.	0.7	17
74	Unique photoactive nanocomposites based on rhodamine 6G/polymer/montmorillonite hybrid systems. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1672-1679.	2.1	17
75	Structural properties of montmorillonite intercalated with tetraalkylammonium cationsâ€"Computational and experimental study. Vibrational Spectroscopy, 2014, 74, 120-126.	2.2	17
76	Tolerance of Clay Minerals by Cement: Effect of Side-Chain Density in Polyethylene Oxide (PEO) Superplasticizer Additives. Clays and Clay Minerals, 2016, 64, 732-742.	1.3	16
77	Thermal stability of tetrabutyl-phosphonium and -ammonium exchanged montmorillonite: Influence of acid treatment. Applied Clay Science, 2017, 138, 63-73.	5.2	16
78	Characterization of products obtained by acid leaching of Fe-bentonite. Clay Minerals, 2007, 42, 527-540.	0.6	15
79	Near-IR study of the impact of alkyl-ammonium and -phosphonium cations on the hydration of montmorillonite. Journal of Molecular Structure, 2022, 1256, 132568.	3.6	15
80	Particle properties of hydrothermal ammonium-bearing illite-smectite. Clays and Clay Minerals, 2007, 55, 36-44.	1.3	14
81	IR spectroscopy of clay minerals and clay nanocomposites. Spectroscopic Properties of Inorganic and Organometallic Compounds, 0, , 22-71.	0.4	14
82	Near-infrared study of the interaction of pyridine with acid-treated montmorillonite. Vibrational Spectroscopy, 2015, 76, 22-30.	2.2	14
83	Reaction synthesis and characterisation of lanthanum silicon nitride. Journal of the European Ceramic Society, 2008, 28, 1917-1922.	5.7	13
84	Montmorillonite modified with unconventional surfactants from the series of octylammonium-based cations: Structural characterization and hydration properties. Applied Clay Science, 2018, 158, 102-112.	5.2	13
85	Utilization of near infrared spectroscopy for studying solvation properties of Cu-montmorillonites. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 123, 385-391.	3.9	12
86	The influence of ageing on consolidation and sinterability of a sub-micron alumina powder. Powder Technology, 2011, 214, 313-321.	4.2	9
87	Near-Infrared Study of Water Adsorption on Homo-Ionic Forms of Montmorillonite. Clays and Clay Minerals, 2016, 64, 571-585.	1.3	7
88	Application of Vibrational Spectroscopy to the Characterization of Phyllosilicates and other Industrial Minerals. , 0, , 171-226.		7
89	Mineralogical and physicoâ€"chemical properties of bentonites from the JastrabÃ¡ Formation (KremnickÃ©) Tj ETQq1 1 0.784314 rgBT	0.7	7
90	The effect of layer charge and exchangeable cations on sorption of biphenyl on montmorillonites. Open Chemistry, 2009, 7, 494-504.	1.9	6

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91	Experimental interactions of the Opalinus Clay and Boom Clay with various repository relevant solutions at 90Â°C under closed conditions. Applied Clay Science, 2012, 59-60, 50-63.	5.2	6
92	Structural changes in smectites subjected to mechanochemical activation: The effect of the occupancy of the octahedral sites. Applied Clay Science, 2021, 213, 106214.	5.2	6
93	(9,10-Dihydroxyoctadecyl)ammonium: A Structurally Unique Class of Clay Intercalable Surfactants. European Journal of Inorganic Chemistry, 2015, 2015, 2841-2850.	2.0	5
94	Reaction of bentonites with pyrite concentrate after wetting and drying cycles at 80Â°C: relevance to radioactive waste (Radwaste) storage. Clay Minerals, 2012, 47, 465-479.	0.6	3
95	Reaction of smectites with iron in aerobic conditions at 75Â°C. Applied Clay Science, 2013, 72, 26-36.	5.2	3
96	Determination of water content in raw perlites: Combination of NIR spectroscopy and thermoanalytical methods. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 240, 118517.	3.9	3
97	Î±-Fe2O3 Nanoparticles/Iron-Containing Vermiculite Composites: Structural, Textural, Optical and Photocatalytic Properties. Minerals (Basel, Switzerland), 2022, 12, 607.	2.0	3
98	FTIR Study of Structural Modifications of Li-montmorillonites. Solid State Phenomena, 2003, 90-91, 503-508.	0.3	2
99	Influence of pre-treatment on zirconium based conversion coating on AA2024. Acta Chimica Slovaca, 2017, 10, 101-106.	0.8	2