

Gailhanou et al. (2013), Heat capacity raw data measured on saponite Sap-Ca-1, nontronite NAu-1 and Santa Olalla vermiculite samples. - Appendix 2.

Table A-2-1. Heat capacities of the nontronite NAu-1 sample, at dehydrated state, between 2 K and 520 K. Series 1: PPMS (cooling); Series 2 : PPMS (heating); Series 3: low-TAC; Series 4: DSC.

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
Series 1		Series 2 (continue)		Series 3 (continue)	
50.80	0.0886	17.97	0.0206	201.80	0.5966
49.04	0.0836	18.62	0.0217	203.75	0.6019
47.44	0.0789	19.26	0.0223	205.68	0.6070
45.92	0.0743	19.92	0.0229	207.61	0.6119
44.32	0.0702	20.55	0.0236	209.52	0.6167
42.87	0.0662	21.28	0.0245	211.42	0.6216
41.46	0.0626	22.02	0.0253	213.31	0.6268
40.16	0.0590	22.76	0.0261	215.20	0.6315
38.84	0.0558	23.50	0.0270	217.07	0.6360
37.57	0.0529	24.33	0.0281	218.94	0.6406
36.30	0.0501	25.18	0.0294	220.79	0.6450
35.16	0.0475	26.00	0.0306	222.64	0.6504
33.99	0.0450	26.88	0.0319	224.48	0.6542
32.88	0.0425	27.78	0.0333	226.31	0.6587
31.79	0.0405	28.79	0.0350	228.13	0.6630
30.75	0.0384	29.70	0.0366	229.94	0.6674
29.74	0.0367	30.75	0.0385	231.74	0.6713
28.76	0.0349	31.74	0.0404	233.54	0.6757
27.77	0.0334	32.88	0.0427	235.33	0.6801
26.88	0.0320	33.95	0.0449	237.25	0.6845
26.00	0.0306	35.19	0.0475	239.30	0.6893
25.14	0.0293	36.38	0.0501	241.34	0.6937
24.32	0.0282	37.62	0.0529	243.36	0.6985
23.52	0.0272	38.91	0.0560	245.38	0.7029
22.74	0.0261	40.23	0.0592	247.39	0.7074
21.99	0.0253	41.60	0.0627	249.39	0.7119
21.27	0.0245	43.01	0.0664	251.39	0.7163
20.57	0.0237	44.48	0.0703	253.37	0.7206
19.90	0.0231	45.96	0.0744	255.35	0.7248
19.26	0.0225	47.53	0.0788	257.31	0.7291
18.62	0.0218	49.14	0.0836	259.28	0.7331
18.00	0.0212	50.80	0.0885	261.23	0.7369
17.41	0.0206			263.18	0.7411
16.83	0.0202	Series 3		265.11	0.7451
16.28	0.0197	13.91	0.0029	267.04	0.7492
15.74	0.0193	14.47	0.0030	268.97	0.7531
15.23	0.0189	15.29	0.0033	270.89	0.7571
14.73	0.0185	16.36	0.0038	272.80	0.7611
14.24	0.0181	17.65	0.0043	274.76	0.7645
13.78	0.0178	18.76	0.0110	276.78	0.7685
13.32	0.0177	19.57	0.0261	278.79	0.7727
12.89	0.0174	21.41	0.0261	280.79	0.7766
12.46	0.0170	23.32	0.0283	282.79	0.7807
12.04	0.0167	25.06	0.0305	284.77	0.7845
11.65	0.0164	26.67	0.0328	286.76	0.7882
11.27	0.0161	28.22	0.0351	288.73	0.7918
10.90	0.0158	29.82	0.0377	290.70	0.7955
10.54	0.0155	31.49	0.0406	292.66	0.7994
10.19	0.0154	33.23	0.0440	294.61	0.8027

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
9.86	0.0151	34.96	0.0475	296.56	0.8063
9.54	0.0148	36.64	0.0512	298.50	0.8100
9.22	0.0145	38.31	0.0551	300.44	0.8132
8.92	0.0141	40.00	0.0592	302.37	0.8168
8.62	0.0138	41.74	0.0637	304.29	0.8202
8.34	0.0135	43.65	0.0688	306.20	0.8233
8.07	0.0134	45.64	0.0744	308.11	0.8269
7.80	0.0131	47.48	0.0798	310.02	0.8305
7.55	0.0127	49.24	0.0852		
7.30	0.0124	50.93	0.0904	Series 4	
7.07	0.0121	52.69	0.0960	330.83	0.8566
6.83	0.0118	54.51	0.1019	332.83	0.8638
6.60	0.0117	56.27	0.1076	334.84	0.8633
6.39	0.0114	57.94	0.1132	336.84	0.8668
6.18	0.0110	59.46	0.1184	338.85	0.8804
5.97	0.0106	60.86	0.1232	340.85	0.8838
5.77	0.0104	62.22	0.1279	342.86	0.8842
5.58	0.0100	63.55	0.1326	344.86	0.8761
5.40	0.0097	64.84	0.1372	346.87	0.8901
5.22	0.0094	66.06	0.1415	348.87	0.9048
5.05	0.0091	67.19	0.1456	350.88	0.9053
4.88	0.0085	68.24	0.1493	352.88	0.9046
4.72	0.0082	69.24	0.1532	354.89	0.9096
4.56	0.0078	70.15	0.1562	356.89	0.9083
4.41	0.0075	70.91	0.1590	358.90	0.9154
4.27	0.0068	71.58	0.1613	360.90	0.9574
4.13	0.0063	72.18	0.1635	362.91	0.9488
3.99	0.0056	72.73	0.1655	364.91	0.9255
3.85	0.0049	73.25	0.1674	366.92	0.921
3.72	0.0041	73.73	0.1691	368.93	0.927
3.59	0.0022	74.20	0.1711	370.93	0.9157
3.47	0.0006	74.66	0.1725	372.94	0.9048
3.35	0.0006	75.07	0.1738	374.94	0.8998
3.24	0.0005	75.46	0.1754	376.95	0.9142
3.13	0.0005	75.83	0.1767	378.95	0.9086
3.03	0.0006	76.19	0.1780	380.96	0.9163
2.93	0.0006	76.53	0.1795	382.96	0.9353
2.83	0.0004	77.27	0.1827	384.97	0.9351
2.74	0.0004	78.44	0.1871	386.97	0.9259
2.65	0.0004	79.81	0.1923	388.98	0.9286
2.56	0.0004	81.28	0.1977	390.98	0.9473
2.48	0.0004	82.71	0.2031	392.99	0.9609
2.40	0.0004	84.10	0.2084	394.99	0.9753
2.32	0.0002	85.63	0.2141	397.00	0.966
		87.47	0.2211	399.00	0.9608
Series 2		89.44	0.2286	401.00	0.9643
2.34	0.0003	91.35	0.2357	403.01	0.9665
2.40	0.0003	93.22	0.2428	405.01	0.9665
2.48	0.0003	95.05	0.2497	407.02	0.9721
2.56	0.0004	96.84	0.2564	409.02	0.9829
2.65	0.0004	98.59	0.2630	411.03	0.9807
2.74	0.0004	100.30	0.2694	413.03	0.9806
2.84	0.0004	102.06	0.2760	415.03	0.985
2.93	0.0005	103.95	0.2830	417.04	0.9802
3.03	0.0006	105.90	0.2903	419.04	0.9881
3.13	0.0005	107.81	0.2974	421.05	0.9894
3.24	0.0005	109.69	0.3043	423.05	0.9967
3.35	0.0006	111.54	0.3111	425.06	0.9966

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
3.46	0.0005	113.44	0.3181	427.06	1.0173
3.58	0.0006	115.38	0.3252	429.06	0.9992
3.70	0.0007	117.30	0.3322	431.07	0.9946
3.83	0.0007	119.18	0.3389	433.07	0.9947
3.96	0.0008	121.04	0.3455	435.08	0.9907
4.09	0.0008	122.87	0.3522	437.08	0.9861
4.23	0.0009	124.76	0.3586	439.09	0.9907
4.37	0.0009	126.70	0.3658	441.09	0.9985
4.52	0.0010	128.62	0.3724	443.09	0.996
4.67	0.0011	130.51	0.3789	445.09	1.0047
4.83	0.0011	132.38	0.3853	447.10	1.0133
4.99	0.0012	134.23	0.3917	449.10	0.9986
5.16	0.0012	136.05	0.3978	451.11	0.9924
5.33	0.0013	137.86	0.4042	453.11	1.0003
5.52	0.0015	139.65	0.4101	455.12	1.0097
5.70	0.0015	141.41	0.4161	457.12	1.0062
5.90	0.0016	143.16	0.4219	459.12	1.0082
6.10	0.0016	144.90	0.4276	461.13	1.0168
6.31	0.0018	146.61	0.4333	463.13	1.0193
6.53	0.0019	148.31	0.4388	465.14	1.0174
6.74	0.0020	150.00	0.4445	467.14	1.018
6.97	0.0021	151.67	0.4497	469.15	1.0185
7.21	0.0022	153.33	0.4549	471.15	1.0247
7.46	0.0023	154.97	0.4604	473.15	1.031
7.71	0.0024	156.61	0.4656	475.16	1.0305
7.97	0.0026	158.22	0.4707	477.16	1.0382
8.24	0.0028	159.91	0.4760	479.16	1.0365
8.52	0.0029	161.66	0.4815	481.17	1.0355
8.81	0.0030	163.40	0.4868	483.17	1.032
9.11	0.0032	165.13	0.4920	485.17	1.038
9.42	0.0034	166.84	0.4974	487.17	1.0481
9.74	0.0035	168.54	0.5026	489.18	1.0557
10.07	0.0037	170.23	0.5075	491.18	1.0562
10.41	0.0040	171.91	0.5127	493.19	1.0539
10.77	0.0042	173.58	0.5174	495.19	1.0477
11.14	0.0044	175.23	0.5225	497.19	1.0516
11.51	0.0046	176.88	0.5273	499.20	1.0512
11.90	0.0048	178.51	0.5324	501.20	1.0554
12.31	0.0051	180.30	0.5372	503.21	1.0537
12.77	0.0053	182.22	0.5425	505.21	1.0709
13.19	0.0056	184.14	0.5482	507.21	1.0639
13.64	0.0059	186.04	0.5537	509.22	1.069
14.09	0.0063	187.92	0.5589	511.22	1.0747
14.57	0.0067	189.88	0.5643	513.22	1.0721
15.07	0.0071	191.90	0.5698	515.22	1.0713
15.58	0.0075	193.90	0.5753	517.23	1.0767
16.11	0.0082	195.90	0.5809	519.23	1.0706
16.66	0.0090	197.88	0.5861	521.17	1.0418
17.23	0.0103	199.84	0.5914		

Table A-2-2. Heat capacities of the saponite Sap-Ca-1 sample, at dehydrated state, between 8 K and 520 K. Series 1 to 5: low-TAC; Series 6: DSC.

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
Series 1		Series 3 (continue)		Series 4 (continue)	
8.06	0.0019	98.13	0.2575	284.70	0.8565
8.46	0.0026	99.30	0.2625	287.48	0.8622

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
8.90	0.0036	100.45	0.2673	290.25	0.8680
9.38	0.0046	101.62	0.2724	293.00	0.8737
9.95	0.0054	102.82	0.2773	295.74	0.8783
10.57	0.0064	104.01	0.2824		
11.21	0.0072	105.21	0.2871	Series 5	
11.89	0.0082	106.43	0.2922	282.09	0.8516
12.61	0.0093	107.66	0.2977	284.75	0.8574
13.17	0.0101	108.92	0.3029	287.46	0.8627
13.68	0.0104	110.17	0.3082	290.15	0.8685
		111.41	0.3133	292.83	0.8739
Series 2		112.64	0.3187	295.49	0.8786
14.37	0.0120	113.89	0.3239	298.19	0.8842
14.95	0.0126	115.16	0.3291	300.92	0.8893
15.53	0.0127	116.45	0.3345	303.65	0.8943
16.12	0.0129	117.82	0.3400	306.36	0.9002
16.72	0.0129	119.20	0.3458	309.06	0.9053
17.33	0.0131	120.53	0.3513	311.79	0.9092
17.95	0.0131	121.86	0.3568	314.55	0.9142
18.58	0.0133	123.22	0.3622	317.16	0.9199
19.24	0.0134	124.61	0.3677	319.80	0.9245
19.93	0.0138	125.99	0.3737	322.51	0.9274
20.63	0.0140	127.37	0.3791	325.21	0.9338
21.33	0.0144	128.73	0.3850	327.91	0.9400
22.03	0.0148	130.12	0.3906	330.63	0.9445
22.74	0.0153	131.54	0.3961	333.38	0.9486
23.45	0.0158	132.96	0.4019	336.12	0.9520
24.17	0.0163	134.36	0.4073	338.86	0.9574
24.88	0.0172	135.75	0.4129	341.59	0.9611
25.58	0.0181	137.18	0.4186	344.34	0.9663
26.26	0.0184	138.63	0.4243	347.13	0.9706
26.95	0.0199	140.08	0.4300	349.91	0.9749
27.66	0.0212	141.51	0.4356	352.68	0.9805
28.38	0.0223	142.94	0.4411	355.44	0.9834
29.08	0.0232	144.40	0.4468	358.23	0.9892
29.74	0.0243	145.88	0.4527	361.17	0.9917
30.39	0.0255	147.43	0.4587	364.21	0.9978
31.06	0.0270	149.05	0.4648	367.25	1.0026
31.77	0.0281	150.68	0.4709	370.27	1.0070
32.49	0.0288	152.32	0.4772	373.85	1.0118
33.19	0.0311	153.98	0.4835	377.98	1.0171
33.88	0.0327	155.66	0.4898		
34.61	0.0342	157.37	0.4958	Series 6	
35.36	0.0357	159.07	0.5022	376.14	0.9836
36.13	0.0374	160.80	0.5085	378.63	0.9718
36.89	0.0390	162.56	0.5148	381.12	0.9874
37.66	0.0404	164.38	0.5215	383.62	0.9971
38.42	0.0425	166.25	0.5282	386.11	0.9903
39.20	0.0444	168.10	0.5345	388.60	1.0186
39.98	0.0464	169.99	0.5413	391.09	1.0002
40.77	0.0481	171.91	0.5479	393.58	1.0158
41.56	0.0501	173.82	0.5545	396.08	1.0238
42.37	0.0521	175.72	0.5611	398.57	1.0084
43.17	0.0537	177.61	0.5675	401.06	1.0234
43.97	0.0567	179.53	0.5738	403.55	1.0141
44.78	0.0590	181.48	0.5805	406.04	1.0224
45.59	0.0611	183.42	0.5869	408.53	1.0307
46.41	0.0630	185.35	0.5935	411.03	1.0272
47.22	0.0657	187.27	0.5999	413.52	1.0336

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
48.05	0.0682	189.22	0.6057	416.01	1.0260
48.88	0.0705	191.20	0.6123	418.50	1.0398
49.73	0.0731	193.17	0.6191	420.99	1.0451
50.57	0.0757	195.13	0.6251	423.48	1.0439
51.39	0.0782	197.08	0.6308	425.97	1.0646
52.22	0.0804	199.11	0.6375	428.46	1.0548
53.06	0.0836	201.28	0.6435	430.96	1.0656
53.90	0.0861	203.49	0.6520	433.45	1.0595
54.74	0.0888	205.72	0.6571	435.94	1.0664
55.58	0.0915	207.97	0.6639	438.43	1.0702
56.42	0.0941			440.92	1.0709
57.27	0.0970	Series 4		443.41	1.0752
58.16	0.1000	182.86	0.5855	445.90	1.0706
59.06	0.1031	184.89	0.5922	448.39	1.0813
59.95	0.1061	186.91	0.5990	450.88	1.0790
60.82	0.1090	188.92	0.6054	453.38	1.0837
61.72	0.1120	190.96	0.6118	455.87	1.0864
62.65	0.1154	193.03	0.6185	458.36	1.0929
63.55	0.1188	195.09	0.6251	460.85	1.0870
64.44	0.1221	197.15	0.6315	463.34	1.0856
65.32	0.1251	199.31	0.6383	465.83	1.0936
66.22	0.1286	201.59	0.6452	468.32	1.0902
67.16	0.1321	203.85	0.6521	470.81	1.0881
68.07	0.1355	206.11	0.6586	473.30	1.0908
68.98	0.1390	208.39	0.6658	475.79	1.0983
69.86	0.1424	210.71	0.6727	478.28	1.1033
70.77	0.1458	213.02	0.6794	480.77	1.1032
71.71	0.1494	215.31	0.6861	483.27	1.1060
72.64	0.1531	217.60	0.6925	485.76	1.1129
73.55	0.1564	219.91	0.6993	488.25	1.1221
74.45	0.1600	222.26	0.7056	490.74	1.1441
75.37	0.1639	224.60	0.7123	493.23	1.1185
76.32	0.1676	226.93	0.7180	495.72	1.1158
77.25	0.1715	229.24	0.7243	498.21	1.1194
78.18	0.1748	231.58	0.7314	500.70	1.1231
79.12	0.1788	234.03	0.7368	503.19	1.1210
80.10	0.1827	236.55	0.7428	505.68	1.1209
81.12	0.1869	239.05	0.7508	508.17	1.1293
		241.54	0.7548	510.66	1.1333
Series 3		244.13	0.7630	513.15	1.1349
82.15	0.1910	246.82	0.7681	515.64	1.1292
83.20	0.1952	249.50	0.7763	518.13	1.1401
84.28	0.1997	252.17	0.7834	520.62	1.1429
85.41	0.2043	254.82	0.7900		
86.57	0.2090	257.51	0.7960		
87.71	0.2137	260.22	0.8042		
88.83	0.2185	262.93	0.8088		
89.98	0.2233	265.62	0.8173		
91.16	0.2282	268.31	0.8224		
92.32	0.2331	271.03	0.8268		
93.47	0.2378	273.78	0.8331		
94.61	0.2427	276.52	0.8394		
95.77	0.2475	279.24	0.8455		
96.96	0.2525	281.96	0.8510		

Table A-2-3. Heat capacities raw data of the vermiculite Santa Ollala sample, at dehydrated state, between 2K and 510 K. Series 1 and 2: PPMS; Series 3 and 4: low-TAC; Series 5: DSC.

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
Series 1		Series 2 (continue)		Series 4 (continue)	
50.77	0.07490	19.9	0.01010	23.26	0.0174
49.22	0.07000	20.56	0.01090	24.77	0.0191
47.56	0.06530	21.27	0.01170	26.38	0.0211
45.97	0.06130	21.95	0.01260	27.95	0.0231
44.44	0.05710	22.72	0.01360	29.53	0.0254
42.98	0.05360	23.51	0.01470	31.12	0.0279
41.56	0.05010	24.28	0.01580	32.75	0.0308
40.2	0.04680	25.13	0.01710	34.46	0.0341
38.88	0.04380	26.01	0.01850	36.16	0.0376
37.6	0.04090	26.84	0.01980	37.89	0.0414
36.36	0.03810	27.8	0.02140	39.65	0.0456
35.16	0.03550	28.75	0.02300	41.33	0.0497
34.01	0.03300	29.65	0.02460	42.99	0.0540
32.82	0.03060	30.75	0.02670	44.70	0.0586
31.75	0.02860	31.74	0.02860	46.42	0.0634
30.71	0.02660	32.81	0.03060	48.22	0.0687
29.69	0.02470	34	0.03300	50.07	0.0743
28.71	0.02300	35.07	0.03530	51.88	0.0799
27.76	0.02140	36.37	0.03820	53.72	0.0857
26.82	0.01980	37.49	0.04080	55.59	0.0918
25.95	0.01840	38.9	0.04380	57.45	0.0981
25.11	0.01710	40.1	0.04670	59.32	0.1046
24.26	0.01580	41.6	0.05020	61.23	0.1113
23.5	0.01470	43.02	0.05370	63.17	0.1182
22.71	0.01360	44.46	0.05730	65.14	0.1254
21.98	0.01270	45.98	0.06140	67.11	0.1328
21.24	0.01170	47.51	0.06520	69.11	0.1403
20.5	0.01080	49.12	0.06970	71.19	0.1483
19.86	0.01000	50.77	0.07480	73.28	0.1564
19.22	0.00928			75.30	0.1643
18.57	0.00859	Series 3		77.25	0.1720
17.97	0.00797	86.81	0.2107	79.14	0.1796
17.39	0.00738	88.98	0.2197	80.97	0.1870
16.81	0.00682	91.12	0.2285	82.76	0.1942
16.26	0.00632	93.25	0.2373	84.51	0.2013
15.74	0.00581	95.32	0.2459	86.21	0.2083
15.22	0.00539	97.35	0.2543	87.88	0.2152
14.72	0.00503	99.36	0.2626	89.51	0.2219
14.23	0.00466	101.36	0.2709	91.11	0.2285
13.77	0.00432	103.38	0.2793	92.68	0.2349
13.32	0.00402	105.41	0.2877	94.22	0.2414
12.88	0.00372	107.42	0.2959	95.76	0.2477
12.45	0.00347	109.38	0.3040	97.29	0.2541
12.04	0.00324	111.32	0.3120	98.80	0.2603
11.65	0.00301	113.28	0.3200	100.28	0.2664
11.27	0.00282	115.30	0.3282	101.75	0.2725
10.9	0.00263	117.36	0.3366	103.19	0.2785
10.54	0.00247	119.41	0.3449	104.61	0.2843
10.2	0.00232	121.44	0.3530	106.02	0.2901
9.86	0.00218	123.43	0.3610	107.41	0.2959
9.54	0.00205	125.41	0.3689	108.82	0.3017
9.22	0.00193	127.36	0.3764	110.24	0.3075
8.92	0.00183	129.34	0.3845	111.65	0.3133
8.63	0.00173	131.49	0.3927	113.05	0.3190

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
8.35	0.00165	133.74	0.4015	114.43	0.3246
8.07	0.00157	135.96	0.4099	115.80	0.3302
7.81	0.00150	138.16	0.4184	117.15	0.3358
7.55	0.00143	140.32	0.4267	118.49	0.3411
7.3	0.00137	142.47	0.4348	119.81	0.3464
7.08	0.00133	144.59	0.4425	121.13	0.3517
6.83	0.00128	146.69	0.4505	122.43	0.3569
6.6	0.00124	148.77	0.4583	123.72	0.3621
6.38	0.00120	150.83	0.4658	125.01	0.3672
6.17	0.00116	152.87	0.4732	126.28	0.3723
5.97	0.00113	154.89	0.4802		
5.77	0.00110	156.90	0.4876	Series 5	
5.58	0.00108	158.89	0.4946	328.59	0.9248
5.4	0.00105	160.86	0.5015	330.60	0.9092
5.22	0.00104	162.81	0.5081	332.60	0.9136
5.05	0.00104	164.76	0.5152	334.60	0.9177
4.89	0.00101	166.68	0.5218	336.60	0.9280
4.73	0.00101	168.60	0.5282	338.61	0.9259
4.57	0.00099	170.50	0.5346	340.61	0.9375
4.42	0.00098	172.38	0.5407	342.61	0.9384
4.28	0.00097	174.26	0.5472	344.61	0.9479
4.14	0.00096	176.12	0.5533	346.62	0.9444
4	0.00095	177.97	0.5594	348.62	0.9469
3.87	0.00094	179.81	0.5652	350.63	0.9479
3.74	0.00093	181.64	0.5711	352.63	0.9558
3.61	0.00093	183.45	0.5767	354.63	0.9531
3.5	0.00094	185.26	0.5826	356.64	0.9617
3.38	0.00093	187.06	0.5881	358.64	0.9530
3.27	0.00093	188.84	0.5936	360.64	0.9615
3.16	0.00093	190.62	0.5992	362.65	0.9671
3.05	0.00092	192.48	0.6047	364.65	0.9664
2.95	0.00092	194.43	0.6110	366.65	0.9797
2.86	0.00091	196.38	0.6171	368.66	0.9756
2.76	0.00092	198.31	0.6226	370.66	0.9877
2.67	0.00092	200.23	0.6280	372.67	0.9912
2.59	0.00091	202.33	0.6341	374.67	0.9952
2.5	0.00091	204.60	0.6406	376.68	1.0019
2.42	0.00089	206.87	0.6472	378.68	1.0074
2.34	0.00088	209.12	0.6536	380.69	0.9919
		211.36	0.6596	382.69	0.9971
Series 2		213.59	0.6659	384.70	0.9963
2.35	0.00097	215.80	0.6719	386.71	1.0036
2.43	0.00097	218.00	0.6780	388.71	0.9968
2.51	0.00095	220.19	0.6837	390.72	0.9867
2.59	0.00094	222.37	0.6901	392.72	1.0057
2.68	0.00095	224.54	0.6953	394.73	1.0185
2.77	0.00095	226.70	0.7009	396.73	1.0256
2.86	0.00095	228.85	0.7065	398.74	1.0159
2.96	0.00093	230.98	0.7118	400.74	1.0181
3.06	0.00094	233.11	0.7173	402.75	1.0197
3.16	0.00093	235.23	0.7228	404.75	1.0242
3.27	0.00095	237.34	0.7281	406.76	1.0522
3.38	0.00096	239.43	0.7330	408.77	1.0486
3.5	0.00096	241.52	0.7385	410.77	1.0391
3.62	0.00095	243.60	0.7433	412.77	1.0475
3.75	0.00094	245.76	0.7481	414.78	1.0487
3.87	0.00096	247.99	0.7534	416.78	1.0449
4	0.00096	250.22	0.7588	418.79	1.0426

Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)	Temperature K	Heat capacity J/(K g)
4.14	0.00098	252.43	0.7640	420.79	1.0496
4.28	0.00098	254.63	0.7692	422.80	1.0454
4.42	0.00101	256.83	0.7742	424.80	1.0371
4.57	0.00100	259.01	0.7796	426.81	1.0364
4.72	0.00103	261.19	0.7843	428.81	1.0487
4.89	0.00105	263.36	0.7891	430.82	1.0697
5.05	0.00106	265.52	0.7935	432.82	1.0725
5.22	0.00108	267.67	0.7980	434.82	1.0747
5.4	0.00108	269.81	0.8027	436.83	1.0722
5.58	0.00112	271.95	0.8072	438.84	1.0753
5.77	0.00114	274.07	0.8112	440.84	1.0717
5.97	0.00116	276.19	0.8156	442.85	1.0761
6.17	0.00119	278.30	0.8201	444.85	1.0729
6.38	0.00122	280.41	0.8259	446.86	1.0726
6.6	0.00126	282.50	0.8300	448.86	1.0814
6.82	0.00131	284.59	0.8332	450.87	1.0806
7.06	0.00136	286.67	0.8373	452.87	1.0811
7.3	0.00141	288.75	0.8413	454.87	1.0805
7.55	0.00146	290.90	0.8453	456.88	1.0865
7.8	0.00153	293.11	0.8496	458.88	1.0910
8.07	0.00159	295.33	0.8535	460.88	1.0866
8.35	0.00167	297.53	0.8574	462.89	1.0949
8.62	0.00175	299.73	0.8619	464.89	1.1022
8.92	0.00184	301.92	0.8654	466.90	1.0929
9.22	0.00195	304.10	0.8693	468.90	1.1076
9.53	0.00207	306.28	0.8729	470.91	1.1074
9.85	0.00219	308.45	0.8771	472.91	1.0963
10.19	0.00233	310.61	0.8796	474.91	1.1181
10.54	0.00249	312.76	0.8840	476.92	1.1197
10.9	0.00264	314.91	0.8879	478.92	1.1131
11.26	0.00283	317.04	0.8916	480.93	1.1208
11.65	0.00302	319.17	0.8938	482.93	1.1255
12.04	0.00324	321.30	0.9013	484.94	1.1266
12.45	0.00347	323.41	0.9030	486.94	1.1205
12.9	0.00375	325.52	0.9053	488.94	1.1180
13.33	0.00402	327.62	0.9090	490.95	1.1446
13.78	0.00434			492.95	1.1355
14.25	0.00467	Series 4		494.95	1.1407
14.73	0.00504	14.20	0.0061	496.96	1.1410
15.23	0.00541	14.72	0.0065	498.96	1.1325
15.75	0.00583	15.41	0.0074	500.97	1.1385
16.29	0.00631	16.23	0.0085	502.97	1.1398
16.84	0.00683	17.16	0.0098	504.97	1.1366
17.41	0.00740	18.19	0.0112	506.98	1.1347
18	0.00800	19.31	0.0127	508.98	1.1557
18.61	0.00864	20.51	0.0142	510.99	1.1569
19.24	0.00932	21.84	0.0158	512.99	1.1548

Table A-2-4. Heat capacities of the samples as functions of temperature (in K) at very low temperatures (Debye type extrapolation) and at high temperatures (modelled DSC values)

Sample	C_p^0 J/(K g)	Temperature range K
Low temperature range		
Sap-Ca-1	$C_p^0 = 3.694 \times 10^{-6} T^3$	0 – 8.06 K
NAu-1	$C_p^0 = 2.258 \times 10^{-5} T^3$	0 – 2.34 K
Vermiculite Santa Ollala	$C_p^0 = 6.845 \times 10^{-5} T^3$	0 – 2.34 K
High temperature range		
Sap-Ca-1	$C_p^0 = 1.9320 - 1.3887 \times 10^{-6} T - 1.0299 \times 10^4 T^{-2} - 16.376 T^{-0.5}$	378.63 – 520.62 K
NAu-1	$C_p^0 = 1.8909 - 1.4769 \times 10^{-4} T - 1.0076 \times 10^4 T^{-2} - 16.019 T^{-0.5}$	310.01 – 521.17 K
Vermiculite Santa Ollala	$C_p^0 = 1.8613 + 5.0062 \times 10^{-5} T - 10^4 T^{-2} - 15.899 T^{-0.5}$	328.59 – 512.99 K