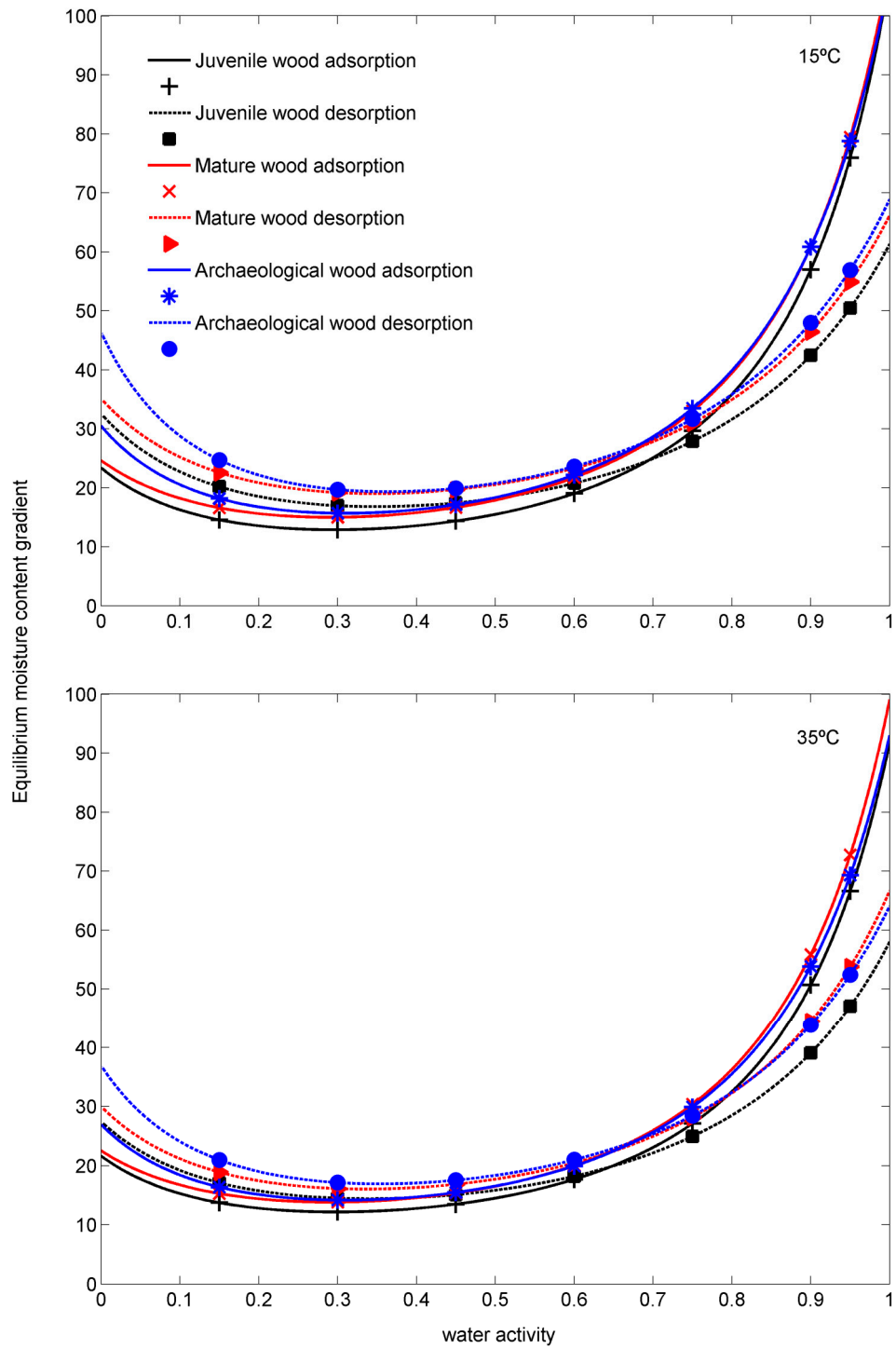
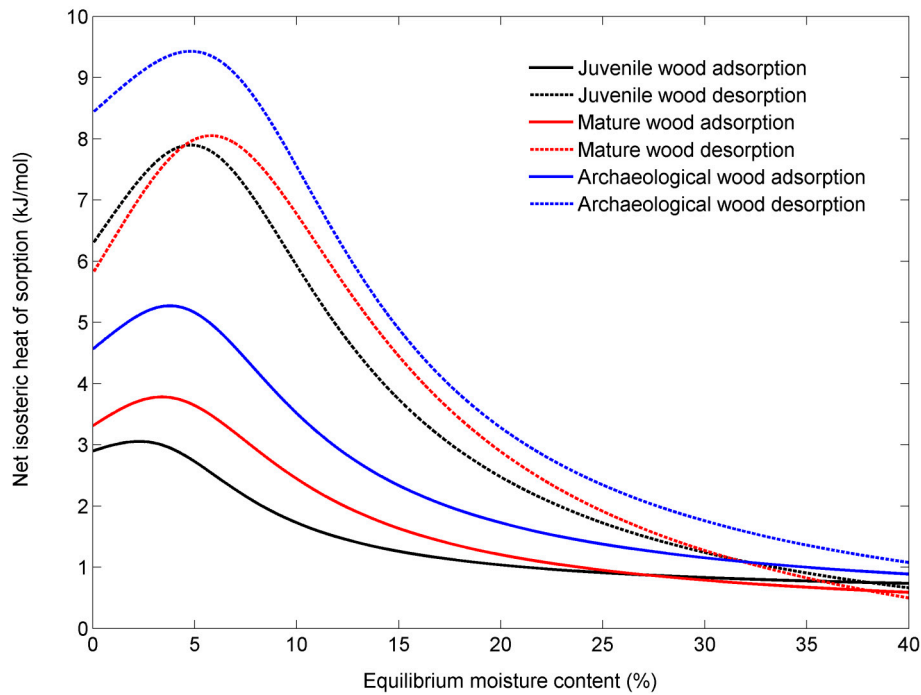


## Supplementary Materials



**Figure S1.** Derivatives of the isotherms of juvenile, mature and archaeological wood at 15 °C and 35°C.



**Figure S2.** Comparison of net isosteric heat of adsorption and desorption of juvenile, mature and archaeological wood.

**Table S1.** Equilibrium moisture content of juvenile, mature and archaeological wood for plotting the 15 °C and 35° C isotherms in adsorption (EMC<sub>a</sub>) and desorption (EMC<sub>d</sub>)

a <sub>w</sub>	Reference wood								Archaeological wood			
	Juvenile wood				Mature wood				15°C		35°C	
	15°C		35°C		15°C		35°C		EMC <sub>a</sub>	EMC <sub>d</sub>	EMC <sub>a</sub>	EMC <sub>d</sub>
0.15	2.78	3.82	2.51	3.14	3.09	4.16	2.69	3.45	3.52	4.98	3.03	4.00
0.30	4.52	6.32	4.44	5.57	5.03	7.15	4.95	6.13	5.72	8.02	5.33	7.01
0.45	6.49	9.12	6.38	7.77	7.24	10.14	7.03	8.60	8.07	11.34	7.67	9.48
0.60	10.08	11.96	8.45	10.14	11.75	13.30	9.57	11.27	12.39	14.36	10.13	12.19
0.75	12.29	15.46	11.98	13.03	14.04	17.19	13.19	14.50	14.64	18.19	13.26	15.63
0.90	17.95	20.34	17.23	17.92	20.17	23.12	19.26	20.00	20.70	24.08	19.31	21.34
0.95	23.03	23.03	20.43	20.43	25.30	25.30	22.97	22.97	27.07	27.07	23.69	23.69

**Table S2.** Hysteresis coefficients for the 15 °C and 35 °C determined by the difference between desorption EMC adsorption EMC.

a <sub>w</sub>	15°C isotherm			35°C isotherm		
	Juvenile wood	Mature wood	Archaeological wood	Juvenile wood	Mature wood	Archaeological wood
0.15	1.07	1.17	1.51	0.66	0.78	1.00
0.30	1.78	1.92	2.28	1.08	1.21	1.55
0.45	2.32	2.47	2.78	1.38	1.48	1.93
0.60	2.69	2.82	3.1	1.55	1.64	2.17
0.75	2.74	2.84	3.12	1.46	1.54	2.18
0.90	1.74	1.82	2.2	0.59	0.68	1.47
0.95	0.77	0.87	1.36	0.16	0.3	0.82

**Table S3.** Hysteresis area of reference wood (juvenile and mature) and archaeological wood.

	<b>Hysteresis area</b>	
	<b>15°C</b>	<b>35°C</b>
Juvenile wood	1.85	1.11
Mature wood	1.96	1.15
Archaeological wood	2.26	1.48