

Changes of wood anatomical characters of selected species of *Araucaria* during artificial charring: implications for palaeontology

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**Table S1.** Weight measurements taken from the studied wood samples before and after charring under different temperatures.

Temperature °C	% Weight loss		
	<i>Araucaria angustifolia</i>	<i>Araucaria bidwillii</i>	<i>Araucaria columnaris</i>
50	2.86	5.56	3.04
100	5.20	10.64	7.60
150	7.06	9.16	5.09
200	18.12	10.89	10.20
250	22.25	37.97	18.97
300	55.65	62.61	57.64
350	68.10	76.26	68.84
400	77.74	85.08	73.13
450	82.48	89.03	82.24
500	83.45	91.52	89.17
550	88.87	91.67	91.27
600	87.91	86.89	94.03
650	92.31	96.16	93.35
700	94.04	95.49	94.06
750	96.46	99.12	93.73
800	97.26	98.10	95.76
850	100.00	99.36	99.45
900	100.00	99.17	99.87
950	100.00	100.00	100.00
1000	100.00	100.00	100.00

**Table S2.** Measurements taken from *Araucaria angustifolia* wood samples before and after charring in the present study.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
in natura	30.542	33.053	8.263	8.382	15.970	100.276	25.909
in natura	29.814	28.331	7.691	7.188	13.940	130.211	10.847
in natura	29.926	33.137	6.590	6.819	13.294	113.607	21.045
in natura	21.659	35.414	9.080	9.205	13.997	108.369	18.415
in natura	30.367	37.849	8.316	8.132	13.127	142.664	21.209
in natura	38.354	33.389	7.505	9.149	12.886	76.471	21.209
in natura	33.261	35.493	8.996	11.365	14.626	86.852	21.209
in natura	26.319	33.389	5.895	10.216	13.879	123.893	21.045
in natura	26.936	37.775	7.418	11.182	11.615	113.119	23.676
in natura	35.390	33.053	7.888	11.228	12.840	115.869	23.822
in natura	28.583	30.783	8.094	12.533	11.769	82.227	13.153
in natura	27.546	31.649	6.917	12.533	11.514	86.812	13.414
in natura	28.721	25.715	8.882	10.428	13.826	100.000	18.415
in natura	21.793	34.617	7.267	10.882	12.741	106.404	15.784
in natura	27.637	34.617	6.689	9.954	14.112	94.704	26.307
in natura	19.583	20.770	7.620	15.623	12.056	136.896	18.415
in natura	17.379	29.819	7.560	10.882	14.077	107.889	23.676
in natura	15.055	33.628	7.560	12.141	9.477	89.443	29.057
in natura	32.419	32.638	6.307	9.456	10.401	110.770	21.045
in natura	28.347	30.660	8.076	9.954	11.554	118.643	13.153
in natura	24.577	26.704	7.579	10.992	11.166	81.551	18.415
in natura	20.647	29.819	8.387	9.327	12.506	92.073	18.415
in natura	30.903	30.676	6.346	11.210	14.353	131.639	18.415
in natura	27.235	30.676	6.441	8.372	11.539	149.948	18.415
in natura	23.594	31.665	6.689	10.992	13.686	77.012	31.568
50	39.460	34.455	11.415	11.749	12.870	126.476	12.216
50	19.527	37.682	10.551	12.586	11.453	229.621	10.714
50	28.684	36.607	11.940	12.748	11.849	152.414	12.121



**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
50	23.603	34.506	12.594	16.761	13.501	126.476	10.606
50	23.279	30.134	11.327	17.033	15.257	84.829	13.720
50	27.152	29.077	8.890	15.139	12.009	181.751	12.216
50	28.181	38.877	12.776	14.930	16.995	109.607	13.636
50	30.418	35.774	11.927	11.891	13.965	207.673	10.714
50	29.288	43.048	12.146	12.602	14.337	86.157	13.636
50	18.873	32.304	10.737	11.637	21.153	155.435	9.091
50	24.219	33.379	12.441	12.756	12.687	203.263	22.778
50	19.721	33.379	9.330	11.496	11.679	129.252	12.121
50	26.675	38.758	11.786	12.287	11.046	87.898	15.152
50	21.184	33.379	10.153	12.038	12.342	120.143	15.227
50	25.136	25.829	12.211	10.888	8.809	115.627	19.755
50	21.266	33.431	9.546	11.382	10.561	97.021	17.201
50	21.627	31.284	10.989	12.536	10.509	106.242	10.879
50	23.738	30.153	10.783	11.499	11.864	123.917	23.128
50	29.841	27.098	13.780	23.133	15.535	110.488	30.769
50	31.176	20.476	10.465	28.528	16.164	141.862	13.920
50	30.804	17.253	10.016	22.332	17.673	173.655	17.789
50	30.842	36.733	12.626	18.107	16.559	131.555	12.293
50	24.435	23.701	10.473	20.289	17.104	83.702	13.400
50	29.719	34.438	10.203	23.663	12.793	176.126	13.597
50	18.632	32.304	8.694	24.746	9.837	120.739	18.667
100	32.840	37.703	9.614	13.738	11.602	132.866	16.252
100	25.910	23.129	9.447	12.649	12.888	71.672	10.342
100	28.380	23.105	8.978	14.994	14.086	78.551	16.990
100	22.400	32.827	10.561	12.108	15.037	115.106	20.684
100	24.030	26.771	8.968	10.339	14.998	171.700	16.252
100	16.500	37.689	9.147	13.067	15.776	80.000	17.745
100	28.290	26.199	8.367	13.845	13.675	147.790	14.774
100	25.100	31.606	10.455	11.601	13.515	80.000	15.583
100	29.470	31.629	7.319	11.530	14.662	125.591	11.538
100	19.250	34.778	9.788	9.511	12.838	87.197	19.246
100	30.230	37.703	18.954	10.803	11.455	89.638	14.636
100	28.380	31.022	16.364	14.273	15.511	54.430	12.332
100	21.340	26.771	12.839	14.488	14.495	132.866	16.252
100	13.810	32.219	13.977	11.197	15.813	71.672	10.342
100	19.520	34.650	14.772	10.828	14.812	78.551	16.990
100	16.570	42.585	13.277	13.556	11.288	115.106	20.684
100	19.250	34.042	13.666	14.581	11.799	171.700	16.252
100	12.970	36.473	15.891	15.721	12.929	80.000	17.745
100	20.480	32.214	18.341	9.086	10.849	147.790	14.774
100	17.420	43.154	15.740	9.848	7.242	80.000	15.583
100	19.920	34.650	16.681	6.758	8.907	125.591	11.538
100	12.640	34.650	11.755	12.200	10.188	87.197	19.246
100	11.950	38.904	9.614	14.103	8.353	89.638	14.636
100	11.460	34.086	8.786	11.667	9.743	54.430	12.332
100	14.580	45.589	7.624	11.709	11.325	80.000	15.000
150	25.583	20.567	10.281	11.976	16.851	139.411	21.872
150	33.263	14.922	5.126	15.371	16.714	143.923	23.899
150	29.569	17.171	12.143	15.122	14.889	163.618	12.498
150	26.595	27.588	8.033	15.560	14.142	129.094	15.623
150	23.271	25.349	7.024	15.563	12.825	141.023	17.185
150	29.256	28.155	11.399	14.695	15.413	109.593	12.596
150	23.870	35.523	10.152	13.852	17.441	160.616	12.498



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
150	35.042	26.691	9.860	15.171	12.167	89.589	12.498
150	22.273	32.078	7.584	15.560	12.377	130.297	12.498
150	20.433	19.860	6.161	15.596	12.287	144.122	20.310
150	29.339	20.375	11.795	12.678	13.418	138.867	12.596
150	26.962	21.420	13.977	11.890	15.929	109.373	20.549
150	30.730	22.471	9.762	10.190	13.985	122.220	17.185
150	28.252	19.338	9.664	13.162	11.555	86.281	17.256
150	24.779	20.898	12.728	13.729	13.168	89.175	14.147
150	27.166	19.880	16.364	11.203	11.827	70.321	19.021
150	21.705	14.638	15.435	15.624	15.345	104.721	23.117
150	28.460	33.583	10.377	13.320	12.632	145.328	13.840
150	28.842	19.880	11.384	13.177	14.249	78.131	23.270
150	20.868	31.704	13.977	12.728	10.539	95.620	18.453
150	23.610	33.776	8.731	13.846	8.487	101.658	26.141
150	21.073	34.920	11.755	13.041	16.214	98.438	15.454
150	28.174	28.169	14.213	11.890	11.264	167.284	24.604
150	23.509	30.398	10.377	14.686	12.276	149.990	19.991
150	21.828	29.359	16.010	12.700	11.769	106.283	20.050
200	24.694	26.143	9.873	6.555	13.009	135.046	21.059
200	24.618	15.682	10.363	7.025	13.495	109.173	25.581
200	22.569	26.128	10.140	4.344	15.493	97.006	20.930
200	20.986	17.241	9.195	5.415	15.755	106.221	11.628
200	21.065	23.562	11.219	3.772	14.564	148.746	18.605
200	23.030	28.777	12.166	4.604	14.065	81.443	16.930
200	19.572	21.968	11.981	3.278	14.707	270.010	22.062
200	17.777	24.038	12.710	4.849	13.995	174.387	21.059
200	20.396	22.994	12.335	4.344	13.260	51.709	16.279
200	22.703	18.316	13.709	5.495	13.001	204.724	18.605
200	23.381	23.603	11.481	7.314	15.000	136.886	23.256
200	19.137	21.132	9.324	7.335	17.443	122.713	28.004
200	30.719	16.196	8.813	6.774	17.124	146.984	19.998
200	25.166	25.621	11.835	7.314	14.103	132.116	22.025
200	19.428	28.777	11.481	7.314	16.035	253.531	18.523
200	24.913	28.289	11.997	8.439	13.832	216.292	15.383
200	20.133	31.030	10.562	6.774	17.634	121.287	23.125
200	23.202	26.032	13.882	6.214	15.158	108.208	20.233
200	22.169	18.934	11.831	9.564	14.111	90.698	10.877
200	20.038	19.212	9.682	8.513	14.435	172.234	21.755
200	25.714	17.649	10.974	9.000	10.850	145.697	23.881
200	34.671	26.402	9.571	8.000	10.432	123.278	15.460
200	23.175	50.667	10.607	6.000	14.914	114.048	18.714
200	27.384	33.333	10.426	7.000	14.653	76.779	16.921
200	19.655	34.769	7.034	8.000	14.009	107.204	21.591
250	33.464	34.619	10.358	13.915	11.107	102.265	18.245
250	26.206	23.274	7.667	11.455	11.962	101.484	15.227
250	35.536	29.201	8.469	12.290	9.825	131.954	30.341
250	24.624	23.795	8.132	11.241	9.699	61.486	21.212
250	22.524	50.825	13.191	14.457	8.675	75.646	25.758
250	26.150	31.940	7.590	13.374	13.512	114.076	18.245
250	23.819	28.161	13.597	10.676	14.482	129.102	21.266
250	30.746	33.560	7.590	12.396	12.881	87.458	24.431
250	30.689	27.579	7.762	10.122	11.449	168.803	19.697
250	27.893	40.553	10.964	11.061	15.678	140.315	15.152
250	27.674	29.756	6.664	11.257	14.137	166.324	15.152



**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
250	30.655	29.216	6.209	8.418	10.195	261.318	12.216
250	23.312	32.444	9.040	9.526	13.716	98.508	12.494
250	21.106	20.046	6.134	10.009	14.158	194.180	12.121
250	26.002	18.970	3.238	11.505	14.224	204.896	13.636
250	29.138	15.721	7.451	12.008	16.426	80.809	15.152
250	46.180	27.089	5.029	12.375	15.893	167.252	18.182
250	36.788	23.844	8.086	11.510	17.114	115.261	13.720
250	37.827	22.761	7.553	12.110	16.314	113.773	9.091
250	28.848	23.353	5.663	13.020	17.020	169.586	21.266
250	32.852	20.075	7.068	13.761	14.398	193.215	15.227
250	32.398	26.547	7.025	11.016	12.571	305.266	23.177
250	36.485	28.841	6.209	10.671	13.626	243.982	18.464
250	38.696	18.428	6.664	11.790	13.020	212.170	16.263
250	31.540	21.732	9.040	12.753	9.673	137.887	16.949
300	26.081	16.251	7.300	4.870	8.735	193.860	15.150
300	29.276	15.623	8.343	7.681	9.556	72.324	16.733
300	27.053	20.007	4.204	7.126	9.017	100.145	19.753
300	26.533	14.373	5.640	8.566	8.926	79.767	24.240
300	18.016	12.815	6.838	8.323	9.523	121.577	9.090
300	17.039	14.686	7.393	7.614	8.881	78.465	10.605
300	17.489	17.287	7.110	9.146	9.523	171.545	13.967
300	17.224	17.438	4.778	7.681	9.414	147.892	12.944
300	19.150	16.924	4.980	10.164	8.750	130.995	10.605
300	17.598	20.800	5.683	8.746	11.529	57.053	12.120
300	29.064	19.160	4.814	10.976	9.284	85.416	10.713
300	35.127	10.665	6.200	10.584	8.937	119.693	13.967
300	30.856	13.484	4.384	10.816	9.966	106.059	17.273
300	18.007	18.042	4.755	9.081	10.069	124.265	13.635
300	15.404	20.208	6.468	12.361	8.753	184.982	7.575
300	25.197	16.386	4.384	15.097	9.041	113.785	12.214
300	17.958	13.289	5.474	10.980	9.712	89.499	13.635
300	22.027	25.765	8.801	9.833	9.764	71.220	15.739
300	22.427	27.031	7.741	11.834	10.316	151.505	10.711
300	25.385	19.631	5.872	10.829	13.988	65.214	12.903
300	33.032	17.973	4.574	10.032	11.656	109.456	7.837
300	37.432	14.159	7.668	11.531	10.592	137.871	12.196
300	26.702	16.418	7.093	11.030	12.255	74.296	23.522
300	20.925	22.586	5.422	10.343	8.833	84.893	13.274
300	19.231	20.896	8.768	9.216	11.199	78.837	9.183
350	29.814	16.131	8.583	5.866	11.471	101.504	13.845
350	23.519	18.053	7.924	7.610	12.817	82.090	17.539
350	24.821	23.441	6.593	9.990	13.133	117.948	17.198
350	25.848	25.414	5.603	8.192	15.611	95.813	13.930
350	16.966	16.654	8.860	8.909	12.971	103.082	15.150
350	13.456	31.719	6.684	8.357	11.982	117.995	18.714
350	18.721	14.646	5.918	7.587	11.178	108.996	7.691
350	15.211	15.134	7.372	8.108	10.342	117.920	11.199
350	23.872	16.618	7.036	10.522	10.209	62.651	15.460
350	22.757	23.441	4.531	4.669	12.597	100.100	15.460
350	21.773	23.913	4.333	6.782	13.039	106.065	13.845
350	26.969	24.474	5.518	7.964	10.975	123.881	12.306
350	26.327	16.597	6.986	10.700	10.734	141.799	19.458
350	25.769	20.011	6.212	8.578	11.333	64.179	18.523
350	25.742	22.450	5.326	11.610	11.115	74.627	15.460
350	18.146	18.541	6.144	9.964	13.487	86.374	13.930



**Changes of wood anatomical characters of selected species of  
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**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
350	22.847	17.190	8.233	8.063	14.387	118.372	16.991
350	28.816	18.667	5.937	10.935	14.397	58.209	13.845
350	19.984	36.656	6.127	11.221	12.768	84.655	15.687
350	16.806	21.654	9.145	8.534	12.337	110.700	19.998
350	24.780	21.705	5.044	7.726	11.719	100.278	15.460
350	20.783	23.894	5.518	10.365	12.167	100.100	17.198
350	21.164	17.982	5.954	9.335	14.387	151.108	18.523
350	30.048	20.215	3.902	6.996	14.340	47.761	15.460
350	25.404	14.952	6.850	7.726	10.019	116.427	17.198
400	15.507	19.393	6.883	9.412	9.235	80.602	15.219
400	21.248	17.621	7.261	8.386	9.896	101.492	13.759
400	26.259	17.564	5.539	8.143	9.219	68.649	13.431
400	23.410	19.027	7.653	8.561	10.304	150.914	14.998
400	15.349	12.072	7.932	6.810	8.207	49.248	17.971
400	19.906	29.635	6.931	9.592	12.367	61.205	12.306
400	21.643	19.393	5.850	10.500	9.762	70.284	11.939
400	15.757	34.771	4.884	11.306	10.860	74.678	16.484
400	17.089	27.476	7.176	10.438	7.708	62.963	20.946
400	16.016	26.340	6.310	8.763	10.000	100.167	15.581
400	19.103	16.097	6.814	7.199	8.977	114.922	14.998
400	13.769	25.253	7.537	8.324	9.026	102.984	17.971
400	21.367	22.267	7.108	9.536	9.471	120.965	16.826
400	19.564	19.390	9.349	9.831	10.682	198.844	10.553
400	13.037	13.492	6.117	9.111	10.696	125.581	13.759
400	13.758	15.357	5.772	10.308	12.153	156.699	14.924
400	12.002	23.032	8.884	9.912	11.611	94.974	17.971
400	11.101	18.627	4.930	9.451	9.899	99.989	14.924
400	9.503	18.636	6.973	9.663	12.349	83.626	19.458
400	11.760	16.302	6.271	8.049	12.262	50.938	13.431
400	19.793	12.756	8.362	9.678	12.702	73.869	20.946
400	19.750	21.683	5.772	10.245	10.497	37.309	10.553
400	20.536	12.909	6.794	9.127	13.810	97.565	12.032
400	18.883	19.631	5.959	5.424	11.202	105.969	11.939
400	20.262	23.702	6.794	7.910	12.633	88.504	12.032
450	18.642	16.457	8.781	8.217	8.304	125.294	18.681
450	17.212	21.262	6.712	8.832	10.224	134.106	26.465
450	23.810	23.372	8.314	7.929	8.155	86.723	21.978
450	24.774	20.441	7.886	8.938	10.395	123.077	18.681
450	16.073	26.035	7.252	8.716	11.850	207.765	20.879
450	32.930	26.821	8.171	8.368	10.107	110.989	23.077
450	28.697	14.886	7.687	9.030	8.637	128.576	13.187
450	28.403	22.569	7.055	9.584	10.745	96.728	17.617
450	20.304	14.865	9.639	8.512	11.710	214.297	14.454
450	24.551	22.496	9.516	13.149	9.881	182.418	18.681
450	24.107	34.869	8.613	8.275	9.701	177.199	19.811
450	18.022	30.453	11.276	8.018	8.347	145.159	18.714
450	20.863	24.045	8.553	8.912	7.853	119.785	24.176
450	17.730	16.872	8.984	7.669	8.682	124.297	25.275
450	20.003	19.155	7.646	8.280	9.047	82.601	16.484
450	17.721	22.608	7.587	8.056	8.679	69.231	24.572
450	15.762	25.968	8.716	8.766	8.534	111.076	15.385
450	9.110	25.895	8.553	8.980	7.011	149.467	19.780
450	9.861	17.997	6.560	9.006	8.691	164.967	15.385
450	10.412	19.121	9.821	8.339	8.235	97.827	16.484
450	10.423	25.870	6.934	9.563	8.561	119.923	16.484



**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
450	14.390	24.847	8.553	9.783	9.014	100.000	24.572
450	14.343	14.665	8.235	8.564	8.484	80.000	15.385
450	11.060	23.647	7.103	8.591	8.968	90.000	19.780
450	10.442	20.246	7.597	11.119	9.989	85.000	15.385
500	16.138	13.233	9.850	10.345	10.003	59.091	20.000
500	22.541	19.112	6.230	13.249	13.363	76.000	21.593
500	21.045	17.639	8.255	10.282	10.975	117.295	23.281
500	19.062	16.466	9.147	9.710	11.550	140.917	21.757
500	15.763	20.875	7.209	8.867	11.821	72.869	21.757
500	19.918	20.873	8.284	11.091	11.817	59.401	20.059
500	16.509	30.411	8.713	12.330	10.609	83.553	24.663
500	16.134	14.400	8.403	9.976	7.581	112.213	28.741
500	20.265	18.417	7.313	10.853	7.278	148.554	24.807
500	20.275	17.600	5.478	9.827	8.203	53.052	28.368
500	18.010	25.600	8.886	11.031	9.994	69.763	26.199
500	19.514	16.800	7.448	9.001	12.411	72.743	28.368
500	21.015	20.800	9.978	10.884	11.110	107.746	24.615
500	17.683	16.819	8.110	9.001	12.252	112.213	24.855
500	15.008	16.819	9.370	11.562	11.659	147.095	27.692
500	19.918	20.016	7.265	12.486	11.533	106.071	28.368
500	15.919	20.800	8.857	8.238	12.054	106.450	27.735
500	22.188	27.200	9.504	10.871	7.061	143.947	24.615
500	18.522	12.900	12.016	11.031	9.054	98.531	18.526
500	15.777	12.000	11.223	8.113	8.536	89.509	23.128
500	16.134	17.618	8.222	11.150	8.886	124.242	29.593
500	18.764	27.212	9.239	8.040	9.105	106.590	21.583
500	18.572	16.800	9.016	8.721	9.476	84.862	21.747
500	16.922	16.080	7.881	9.943	9.473	86.364	23.472
500	15.402	17.618	8.122	8.870	12.108	84.006	18.707
550	30.372	21.383	9.290	3.935	9.971	79.593	16.275
550	28.753	22.505	9.149	8.798	11.711	171.654	9.211
550	16.789	21.383	9.012	7.717	11.936	95.242	11.915
550	22.361	29.220	9.587	6.988	11.519	166.978	18.468
550	21.535	22.505	7.893	6.548	10.846	159.133	13.158
550	15.157	21.353	9.176	4.880	11.295	115.495	19.781
550	17.960	22.477	7.213	6.548	11.728	156.016	11.842
550	19.155	24.954	10.143	4.880	10.669	121.648	18.421
550	24.721	28.186	9.852	5.456	11.728	120.078	18.421
550	21.193	19.106	8.033	5.877	11.295	93.580	14.533
550	12.914	20.261	10.098	5.488	8.883	176.281	13.224
550	12.380	12.814	12.821	6.179	9.382	159.256	18.468
550	19.574	20.354	11.107	4.116	12.372	102.971	21.094
550	12.199	21.705	9.902	4.351	11.265	92.483	18.421
550	17.164	23.708	10.992	9.023	10.453	335.298	16.644
550	21.711	17.007	11.653	5.215	10.231	142.048	17.105
550	23.130	27.066	9.516	6.632	11.360	174.659	14.533
550	20.024	21.353	9.950	13.595	10.406	103.113	17.105
550	24.482	14.653	8.965	13.987	11.219	79.593	22.368
550	17.530	18.418	8.369	11.615	10.798	56.227	14.474
550	23.525	16.956	7.629	12.777	10.496	123.552	18.421
550	16.765	15.495	11.288	8.846	10.345	115.495	18.608
550	7.177	17.551	8.804	11.440	9.773	171.654	15.844
550	8.458	17.604	10.797	11.673	6.669	123.286	23.830
550	9.478	17.834	8.430	9.364	10.615	132.701	20.939
600	28.279	15.203	5.243	8.129	10.857	91.264	14.131



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
600	19.174	18.869	5.967	8.314	10.904	166.750	15.987
600	20.662	13.059	3.659	9.104	9.311	128.982	17.016
600	21.278	19.243	4.771	9.245	9.560	84.918	16.986
600	19.986	22.240	4.603	7.895	11.299	83.406	19.984
600	19.986	21.129	5.683	10.102	11.835	93.930	15.987
600	18.480	15.786	5.840	9.851	12.208	142.005	13.989
600	16.572	15.201	6.654	8.687	10.857	79.553	16.112
600	19.856	27.038	4.780	9.791	9.743	54.770	22.073
600	19.815	25.821	6.181	10.347	9.743	57.328	20.084
600	15.996	33.038	8.295	10.780	10.108	78.328	18.096
600	15.265	26.944	9.958	10.542	12.122	143.432	27.978
600	20.443	17.963	10.358	12.496	10.072	117.586	21.982
600	26.120	26.944	10.142	11.307	9.193	75.953	11.990
600	21.386	25.919	9.041	12.109	10.199	60.145	19.984
600	19.124	22.565	7.348	11.212	10.835	91.190	24.064
600	17.958	25.919	8.348	11.212	11.660	84.758	20.084
600	19.629	21.331	8.030	7.787	10.542	164.125	17.986
600	14.545	19.085	8.989	10.352	10.593	85.157	15.987
600	18.517	20.239	7.725	10.382	10.371	143.497	16.112
600	16.760	21.449	8.045	9.560	10.667	183.682	33.973
600	14.079	24.699	6.906	10.816	9.604	145.912	21.982
600	14.610	23.603	6.951	12.840	9.836	102.912	20.084
600	15.486	20.487	6.353	12.556	10.227	141.981	15.987
600	19.174	22.057	6.831	8.947	9.104	208.612	11.990
650	32.255	16.378	9.146	10.183	14.660	54.584	28.486
650	22.795	21.838	8.123	8.735	13.840	100.000	22.966
650	21.591	15.442	10.963	7.153	14.638	112.100	24.131
650	21.960	31.965	8.342	11.029	14.346	132.347	18.570
650	23.174	18.562	11.944	10.489	14.165	95.578	25.125
650	16.447	13.148	8.540	9.250	14.336	130.876	21.957
650	21.253	18.594	5.536	9.743	13.076	126.594	18.570
650	16.139	20.746	7.717	7.745	13.020	120.584	29.514
650	28.349	12.011	5.955	9.612	12.225	39.810	31.754
650	22.469	24.022	6.595	8.924	13.113	89.805	15.332
650	23.152	23.163	9.320	11.999	11.999	128.467	28.486
650	19.007	17.504	10.114	12.604	12.604	117.644	22.966
650	14.677	18.594	10.411	13.065	13.065	139.815	24.131
650	13.171	20.746	9.094	14.815	14.815	53.119	18.570
650	19.640	13.148	10.173	12.231	12.231	170.595	25.125
650	17.388	15.325	10.019	12.865	12.865	88.238	21.957
650	21.212	16.415	10.482	11.518	11.518	81.353	18.570
650	17.769	12.011	9.517	11.518	11.518	130.901	29.514
650	22.147	16.378	10.581	10.004	10.004	101.726	31.754
650	17.505	13.103	8.174	10.911	10.911	132.738	15.332
650	16.670	14.568	8.451	9.838	9.838	105.963	21.957
650	19.424	12.060	7.412	9.971	9.971	122.081	18.570
650	20.108	21.003	6.562	10.184	10.184	83.814	29.514
650	16.193	16.415	7.571	11.911	11.911	123.831	31.754
650	18.334	15.325	10.878	7.426	7.426	78.154	15.332
700	23.593	16.909	9.387	11.263	14.086	158.539	18.995
700	21.123	19.155	10.933	10.829	14.677	114.607	24.213
700	23.396	19.155	8.942	11.431	17.156	103.847	22.873
700	27.235	12.576	8.632	10.789	14.402	98.277	26.862
700	20.379	20.371	9.745	12.035	16.626	137.005	20.325
700	24.025	25.895	9.387	12.157	14.604	119.809	17.461





**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
700	24.083	24.771	10.151	11.572	13.005	63.141	26.996
700	23.942	24.771	9.954	10.450	14.126	111.487	16.340
700	23.825	24.771	9.418	9.587	11.954	124.917	18.995
700	18.411	15.747	8.863	11.011	11.797	56.427	31.926
700	26.844	17.997	10.993	12.825	13.300	124.917	21.864
700	19.231	17.021	10.016	14.266	12.743	92.685	21.490
700	16.756	19.121	9.317	12.525	14.401	90.029	28.237
700	26.785	18.137	8.970	12.210	11.556	63.355	17.461
700	24.356	20.740	8.942	13.400	14.529	100.743	18.804
700	21.122	15.747	9.630	13.874	12.984	56.427	13.431
700	20.676	18.032	8.222	12.718	14.930	72.541	14.774
700	17.958	24.771	9.066	13.615	13.275	185.355	16.173
700	19.265	20.246	9.348	14.125	13.939	88.809	23.457
700	14.184	20.277	8.371	12.501	13.210	61.798	12.088
700	9.053	21.401	7.514	11.062	14.921	118.202	18.995
700	16.756	22.496	12.275	13.050	13.219	122.231	16.340
700	16.800	20.526	10.435	13.171	14.127	111.487	12.088
700	13.467	22.496	9.821	12.255	14.987	96.742	10.829
700	10.118	24.771	8.326	11.944	14.080	98.195	20.147
750	27.728	15.762	9.409	9.697	10.217	100.000	27.485
750	23.145	29.272	9.199	12.551	9.975	97.727	26.161
750	18.650	16.888	8.690	11.309	10.896	186.585	11.420
750	18.679	16.888	7.926	12.195	10.277	110.321	21.591
750	19.481	20.390	8.228	9.487	10.131	123.911	15.909
750	22.660	24.794	7.148	9.829	12.153	131.823	18.499
750	28.870	25.895	5.818	7.722	12.981	122.917	12.500
750	18.254	27.044	7.216	11.211	12.576	97.754	17.641
750	19.797	22.629	8.068	8.663	10.924	150.430	17.045
750	22.454	22.517	6.653	8.240	12.056	110.811	21.591
750	23.906	28.169	8.168	9.112	10.217	128.127	14.816
750	24.573	32.650	6.870	7.200	9.975	118.624	17.045
750	16.041	30.398	5.874	10.709	10.896	115.132	22.727
750	16.574	25.919	7.416	7.968	10.277	189.990	14.773
750	7.720	31.544	7.438	8.529	10.131	114.452	18.217
750	22.864	33.851	4.099	8.200	12.153	123.905	15.161
750	21.430	28.146	4.539	9.754	12.981	108.104	14.773
750	18.366	19.140	8.061	9.457	12.576	105.834	30.703
750	12.394	23.883	5.878	7.723	10.924	151.175	21.591
750	13.157	18.154	5.630	7.043	12.056	147.745	18.217
750	9.135	19.272	5.341	7.651	10.131	115.870	17.083
750	9.677	24.769	5.036	6.281	12.153	120.888	26.235
750	12.406	19.173	5.545	8.214	12.981	118.966	19.352
750	11.530	19.173	4.099	8.459	12.576	86.729	20.737
750	8.464	25.919	5.630	7.321	10.924	195.722	15.909
800	16.469	25.919	9.273	9.215	7.843	128.868	19.697
800	15.471	17.037	7.292	9.144	12.251	83.457	9.216
800	13.224	20.297	8.900	6.858	10.226	77.406	18.245
800	14.932	24.769	6.900	9.144	7.843	62.287	24.290
800	18.057	29.294	6.816	9.215	8.447	90.909	18.182
800	15.752	30.419	6.053	9.144	11.311	115.510	30.903
800	12.377	28.236	6.443	9.144	9.982	153.098	24.242
800	15.677	18.049	5.309	8.082	8.447	78.802	13.969
800	15.200	27.114	5.855	13.032	11.311	96.221	21.694
800	18.764	22.963	9.614	8.000	8.942	89.590	15.152
800	15.755	23.670	13.068	6.997	8.942	150.621	16.877





**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
800	15.755	20.390	10.457	11.144	7.998	140.309	15.794
800	16.898	28.169	13.494	11.144	5.546	83.089	11.756
800	11.828	24.794	9.111	6.556	8.873	88.320	18.222
800	14.445	19.435	10.549	8.810	11.092	110.360	18.176
800	16.618	25.919	8.669	7.727	8.209	84.477	22.109
800	12.255	18.049	8.730	7.649	7.343	65.546	11.684
800	14.695	28.558	8.208	6.647	8.063	74.183	18.176
800	14.014	22.961	5.665	7.727	8.127	90.040	23.405
800	9.580	22.847	7.636	7.727	8.615	140.218	10.386
800	9.825	19.149	10.495	8.742	8.200	120.000	11.756
800	9.893	19.420	8.809	8.322	10.234	86.000	18.222
800	10.974	27.511	7.459	12.217	8.904	78.000	18.176
800	12.428	28.649	8.120	7.330	9.296	85.000	22.109
800	12.942	25.157	8.500	6.556	8.127	90.000	11.684
850	15.244	19.811	12.188	6.900	12.375	42.662	18.243
850	15.547	17.627	10.827	7.159	12.125	81.203	15.450
850	12.822	19.534	13.490	8.258	11.698	128.782	24.287
850	23.497	19.536	7.431	8.295	12.588	142.537	12.120
850	26.349	18.711	10.155	7.433	10.168	112.200	15.150
850	14.098	18.452	12.156	8.258	7.591	60.675	21.264
850	26.771	18.821	7.376	6.152	7.223	107.830	24.287
850	18.257	33.440	7.739	6.152	10.502	71.220	25.755
850	25.853	37.333	6.633	6.795	14.804	69.755	27.437
850	11.391	28.000	6.158	6.609	14.729	89.499	15.450
850	13.194	30.782	5.916	13.742	10.091	102.415	15.225
850	13.427	37.428	7.882	14.322	10.725	100.000	19.695
850	12.156	46.667	6.307	8.774	10.032	189.051	15.150
850	12.743	23.125	6.588	8.085	9.658	77.264	18.180
850	27.757	30.274	6.519	7.717	10.410	127.870	13.635
850	22.064	18.614	5.819	6.026	8.182	139.485	21.425
850	11.930	24.012	4.198	7.717	9.720	91.214	13.635
850	16.285	21.755	7.443	6.774	9.342	127.699	16.665
850	9.216	20.614	7.519	5.862	8.615	140.893	16.665
850	14.038	17.152	6.028	9.759	10.884	94.707	15.150
850	12.613	17.491	6.519	7.631	11.658	146.076	21.264
850	22.228	17.152	7.459	7.336	8.312	80.351	19.695
850	13.307	22.897	6.972	9.229	8.410	106.059	22.775
850	14.919	19.439	7.061	7.495	9.762	96.210	18.739
850	8.674	20.000	8.703	10.386	8.258	77.397	22.775
900	22.332	22.332	7.278	9.316	11.345	148.448	35.453
900	29.227	29.227	13.039	8.841	8.629	105.143	28.735
900	18.324	18.324	5.534	7.763	11.468	87.838	24.231
900	35.623	35.623	6.674	9.345	10.293	80.821	48.840
900	13.333	13.333	9.579	9.713	12.140	112.070	27.260
900	28.887	28.887	9.797	9.312	11.400	60.880	27.428
900	22.332	22.332	8.004	8.876	11.836	54.520	24.420
900	24.443	24.443	6.917	7.854	8.187	133.307	36.347
900	24.844	24.844	8.249	6.916	13.167	100.000	27.925
900	17.915	17.915	8.266	9.300	11.182	112.438	27.428
900	19.999	19.999	6.959	8.592	6.042	91.069	21.202
900	26.665	26.665	6.029	8.511	10.536	139.330	33.318
900	13.516	13.516	7.285	7.685	12.750	111.701	33.455
900	15.555	15.555	6.716	8.171	10.044	124.775	24.977
900	15.555	15.555	5.974	9.468	7.674	87.838	36.347
900	22.221	22.221	6.911	9.213	8.039	122.512	33.455



**Table S2.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
900	22.661	22.661	8.635	8.736	8.592	133.410	27.260
900	26.665	26.665	5.873	6.487	8.064	203.140	33.318
900	24.443	24.443	7.156	7.644	6.701	66.911	40.411
900	17.915	17.915	3.112	8.994	5.667	136.436	39.839
900	28.972	28.972	5.378	9.353	5.488	143.162	27.428
900	20.122	20.122	4.749	9.355	8.791	57.629	36.473
900	24.544	24.544	5.177	8.548	9.067	118.747	33.864
900	24.443	24.443	6.235	9.271	6.974	163.813	24.977
900	24.544	24.544	4.665	8.036	7.391	155.923	33.455

**Table S3.** Measurements taken from *Araucaria bidwillii* wood samples before and after charring in the present study.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
in natura	48.014	45.486	8.119	12.498	11.135	162.481	26.127
in natura	36.862	38.071	7.763	11.902	13.106	176.818	24.638
in natura	26.240	41.025	8.784	13.225	11.559	250.875	20.496
in natura	30.728	35.173	8.565	10.882	13.382	129.189	21.787
in natura	28.064	41.104	6.039	12.398	12.988	136.424	14.493
in natura	30.446	41.104	8.199	12.114	13.487	237.964	20.290
in natura	31.034	39.535	6.803	9.946	14.935	165.402	19.062
in natura	30.821	30.888	8.053	11.864	14.320	210.145	16.008
in natura	32.169	36.869	12.558	7.582	13.957	163.928	14.493
in natura	27.828	26.397	13.895	7.984	15.121	78.742	16.008
in natura	29.429	46.879	11.680	6.560	14.744	225.370	18.841
in natura	29.936	24.892	12.390	6.216	13.596	130.703	23.188
in natura	25.388	51.270	12.874	7.829	14.427	249.378	17.927
in natura	26.889	41.025	11.468	8.452	14.653	184.349	23.188
in natura	34.892	36.606	12.752	9.107	14.474	218.032	17.452
in natura	32.005	39.778	12.150	9.032	14.653	210.806	24.680
in natura	28.064	45.511	11.757	10.313	13.876	288.280	17.391
in natura	29.169	31.274	13.785	8.557	13.791	197.270	14.565
in natura	34.897	31.306	12.720	9.241	14.603	163.928	13.043
in natura	28.590	22.922	12.370	10.378	12.571	78.742	20.496
in natura	28.322	30.155	11.738	8.766	11.718	225.370	28.667
in natura	28.772	36.987	11.794	10.887	11.927	130.703	18.168
in natura	27.387	46.997	11.105	10.536	11.983	249.378	18.168
in natura	36.172	48.353	9.814	9.493	12.761	184.349	18.352
in natura	30.116	36.987	10.605	10.540	12.335	218.032	21.402
50	36.625	33.047	10.077	13.079	11.812	120.282	23.205
50	49.000	30.281	10.534	11.419	9.261	115.188	11.690
50	34.930	36.597	10.160	11.454	8.653	100.172	18.186
50	34.901	31.613	9.994	11.195	10.634	201.643	13.329
50	37.613	29.031	8.682	9.479	10.994	123.762	16.860
50	39.890	33.140	7.148	8.213	11.204	110.119	21.493
50	33.677	42.023	7.505	12.074	10.338	135.896	19.908
50	40.430	30.281	10.077	11.869	9.067	146.033	16.615
50	49.941	31.580	9.696	11.474	11.793	147.529	24.854
50	51.461	35.915	7.819	10.743	11.934	157.546	23.671
50	42.735	26.195	9.484	13.523	9.671	135.118	18.481
50	42.599	31.873	8.109	7.178	10.769	214.189	16.530
50	47.651	27.312	8.432	6.038	10.338	156.805	16.530
50	48.333	34.451	7.059	6.295	9.067	159.028	25.014
50	54.156	29.031	9.125	10.248	8.027	155.824	14.877



Changes of wood anatomical characters of selected species of *Araucaria* during artificial charring: implications for palaeontology

Table S3. Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
50	49.257	28.853	6.981	7.581	16.079	174.800	11.571
50	44.945	34.451	8.206	9.014	12.176	205.765	18.183
50	42.541	38.996	7.330	7.038	10.438	140.075	18.481
50	37.231	45.958	7.179	8.208	10.138	153.407	18.258
50	36.111	46.293	8.744	10.151	8.461	141.308	19.836
50	33.204	25.878	8.396	7.581	9.958	134.757	23.142
50	28.785	25.878	6.661	9.854	12.984	105.602	16.857
50	36.651	34.451	7.007	8.446	12.562	168.544	18.362
50	47.320	37.570	8.820	8.208	12.538	177.178	20.100
50	35.000	25.878	5.968	8.903	10.864	240.090	10.015
100	43.198	33.042	6.999	7.556	15.091	83.667	15.217
100	38.276	34.476	9.081	7.143	15.113	143.574	10.222
100	36.461	38.752	10.354	4.324	14.726	160.903	18.485
100	24.818	33.042	11.192	5.861	17.447	122.193	11.882
100	20.946	28.705	11.149	7.001	15.562	208.401	20.235
100	25.782	35.910	11.513	8.320	16.524	82.595	13.548
100	29.205	35.996	9.344	6.073	15.462	262.089	15.124
100	23.009	38.779	10.354	8.530	15.462	130.378	20.165
100	31.661	44.493	10.248	5.861	15.690	178.343	22.103
100	36.056	35.882	11.343	6.358	13.232	107.612	15.217
100	35.887	18.714	12.312	5.686	13.198	173.136	15.217
100	25.627	21.577	9.850	6.437	13.669	191.619	18.485
100	31.677	37.317	8.416	5.686	13.206	200.000	11.882
100	30.690	40.290	9.505	6.944	14.680	258.836	11.882
100	24.734	40.417	7.346	9.721	13.206	115.962	13.443
100	34.683	41.722	11.192	7.081	15.354	305.654	17.544
100	26.314	27.270	10.194	6.944	13.274	250.856	10.083
100	31.622	31.576	8.817	6.944	10.749	178.337	13.548
100	32.822	34.476	8.878	6.944	12.762	276.258	15.092
100	29.598	28.741	10.105	9.820	15.810	88.168	9.317
100	30.360	31.706	9.505	6.944	10.466	105.964	14.264
100	25.500	48.883	8.601	5.555	12.017	143.148	15.833
100	34.696	30.141	9.054	8.447	14.883	164.684	14.191
100	27.249	31.706	7.661	7.081	15.267	217.621	10.865
100	26.062	33.291	10.453	8.333	16.995	129.327	6.718
150	35.367	37.570	6.971	9.349	12.735	215.773	15.116
150	45.749	38.864	10.810	10.752	12.255	221.715	26.761
150	34.357	32.386	8.379	12.170	10.121	92.628	15.837
150	42.230	32.386	8.084	12.115	10.882	75.164	33.386
150	39.590	45.958	6.848	12.996	12.082	79.997	34.048
150	37.831	51.677	7.715	13.426	11.594	193.585	20.308
150	38.800	44.523	7.948	12.823	10.882	167.069	16.693
150	45.757	43.279	8.622	12.115	11.004	80.153	16.693
150	48.778	37.350	8.480	13.700	12.337	191.725	20.101
150	44.396	37.350	7.327	13.861	11.661	258.346	16.693
150	36.237	38.758	8.137	10.722	11.661	238.022	25.095
150	35.397	27.612	9.417	12.190	9.910	115.809	30.248
150	27.735	35.915	9.417	11.400	11.822	163.670	38.796
150	26.708	33.140	8.720	11.436	10.466	185.153	20.235
150	26.084	34.719	10.161	12.351	14.015	115.997	43.981
150	24.105	30.145	9.858	12.351	9.152	149.867	38.687
150	24.928	28.203	9.089	12.075	10.882	251.245	36.970
150	27.184	44.708	6.971	11.487	11.332	211.732	35.329
150	28.428	33.016	9.468	10.935	12.480	129.306	23.586
150	28.500	27.425	6.548	11.784	11.322	187.244	32.324



**Table S3.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
150	19.444	25.838	7.612	13.500	11.934	110.744	33.985
150	23.439	23.012	8.713	12.458	11.174	176.929	40.470
150	31.860	34.451	7.483	13.402	9.152	230.753	30.294
150	25.617	34.451	7.393	13.053	10.852	213.993	50.441
150	24.923	27.274	7.676	11.951	10.381	110.289	18.485
200	25.442	19.527	6.421	10.143	14.180	169.325	23.077
200	33.427	30.887	6.296	7.314	14.764	456.306	13.462
200	35.022	26.492	7.824	7.172	13.207	139.799	15.504
200	31.858	20.548	8.063	5.914	11.869	334.422	18.244
200	34.209	29.749	7.407	5.914	15.146	170.036	19.327
200	28.733	21.628	6.195	6.415	14.180	147.770	25.000
200	24.002	24.918	5.743	7.172	12.683	166.982	17.730
200	21.947	32.973	7.905	7.314	19.298	157.573	30.829
200	35.650	23.250	6.966	7.172	13.694	132.047	29.101
200	37.292	36.856	9.722	9.072	16.105	206.264	11.698
200	33.991	28.695	7.343	10.143	15.731	206.264	21.241
200	44.167	31.933	8.615	10.041	12.916	174.122	9.805
200	39.351	44.267	7.514	8.607	16.700	157.286	17.413
200	19.342	44.084	7.124	10.041	18.595	122.386	14.000
200	30.575	35.562	6.805	7.314	17.302	128.282	30.828
200	48.893	42.853	6.966	4.536	14.147	175.497	19.326
200	45.781	36.955	6.782	8.607	11.708	127.633	23.394
200	60.951	39.797	6.092	9.072	14.634	163.821	24.999
200	55.939	38.376	8.063	10.443	15.890	116.206	11.697
200	44.332	42.640	9.441	7.314	12.767	192.842	15.384
200	46.512	29.848	7.343	9.072	14.553	241.935	32.691
200	37.128	31.302	9.322	11.565	16.149	167.630	46.152
200	52.061	31.269	9.574	9.623	15.193	118.341	26.990
200	44.103	41.219	7.905	7.314	15.193	188.725	30.768
200	52.995	32.814	7.057	4.536	15.130	171.524	28.845
250	29.630	38.597	7.708	11.571	11.418	178.813	17.550
250	21.200	41.452	7.765	8.612	13.699	235.277	16.278
250	25.343	37.388	6.530	11.482	12.989	98.716	17.397
250	20.837	32.887	5.841	8.369	13.820	140.800	18.556
250	30.411	29.999	5.450	8.612	10.950	157.695	18.701
250	24.939	40.101	4.911	11.571	9.118	153.491	19.750
250	27.802	24.453	5.145	8.730	11.496	136.635	11.598
250	28.991	31.557	5.583	8.730	11.802	112.644	27.370
250	27.596	38.597	7.050	7.729	11.943	130.968	18.701
250	26.475	37.388	8.296	8.612	11.011	87.337	17.262
250	27.647	31.719	6.598	11.835	10.776	159.321	16.083
250	30.417	28.606	4.634	11.482	11.812	184.067	23.417
250	24.882	23.255	8.575	10.449	11.340	128.734	18.701
250	22.618	35.970	5.662	10.149	12.274	131.059	15.824
250	25.299	37.142	5.369	9.628	10.482	271.388	17.262
250	24.939	46.268	3.796	7.176	12.137	99.747	18.756
250	26.004	41.452	5.583	5.918	10.868	106.724	18.701
250	34.648	41.428	7.669	12.917	12.274	184.181	11.508
250	30.458	32.893	6.945	10.931	12.464	140.800	12.947
250	26.004	46.280	7.765	10.449	11.952	157.695	17.262
250	24.314	36.511	6.348	11.835	11.812	153.491	15.824
250	23.980	40.401	7.669	10.047	8.511	136.635	16.000
250	25.091	38.625	7.071	10.449	10.786	112.644	15.000
250	22.428	40.401	5.116	7.318	10.868	130.968	20.000
250	23.152	38.625	5.866	10.931	12.755	87.337	17.000



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S3.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
300	31.347	24.163	7.576	9.063	6.865	139.410	15.942
300	38.252	25.623	7.240	7.760	7.603	134.012	24.638
300	22.007	28.427	6.783	8.152	7.365	197.447	30.744
300	31.626	31.559	7.321	12.068	7.603	368.484	18.841
300	27.230	31.269	7.807	14.047	6.668	409.800	27.574
300	22.107	34.112	6.350	13.760	8.487	141.163	14.565
300	22.655	39.797	8.820	15.501	7.776	118.032	23.188
300	25.748	45.505	5.445	14.620	7.603	113.771	20.342
300	30.315	35.647	6.102	13.474	7.603	82.360	18.896
300	35.252	42.735	7.807	13.784	7.776	66.654	26.087
300	37.990	28.427	6.199	10.789	8.946	160.801	15.942
300	30.545	38.376	6.331	10.158	6.038	173.061	19.062
300	22.432	31.398	5.553	7.369	8.694	180.528	21.787
300	24.713	31.782	5.925	8.356	6.038	306.131	15.942
300	26.772	38.402	6.887	10.064	6.865	113.856	24.638
300	22.197	31.302	8.279	8.332	7.544	92.160	20.496
300	30.214	27.043	6.497	8.332	7.182	265.242	21.739
300	33.579	31.398	7.321	7.256	10.416	163.138	18.841
300	24.359	37.064	6.350	7.786	8.057	212.062	20.496
300	30.470	29.882	8.780	7.615	5.964	175.661	20.342
300	23.974	31.269	6.102	9.243	12.581	143.250	18.896
300	22.022	32.814	7.928	12.051	8.057	209.469	23.234
300	21.279	25.623	7.807	11.182	9.288	151.859	20.290
300	29.774	27.155	6.887	13.296	8.946	165.262	17.391
300	32.340	34.112	10.411	11.783	7.776	178.807	21.739
350	24.479	27.240	8.150	12.510	14.222	159.584	31.082
350	21.205	19.218	9.275	11.270	12.068	149.231	19.780
350	23.075	16.966	7.815	8.073	13.875	139.837	26.737
350	29.750	16.916	9.925	7.087	13.875	176.326	41.758
350	22.258	16.944	8.957	12.309	11.959	132.567	26.465
350	21.142	16.916	9.454	12.062	14.553	136.008	33.620
350	18.658	24.407	8.970	10.636	12.721	175.687	17.582
350	18.742	21.473	9.081	10.002	13.875	80.764	19.902
350	23.179	17.939	8.026	11.642	10.962	226.711	24.176
350	23.232	18.229	5.839	10.953	13.016	128.577	33.259
350	23.061	17.115	6.559	8.846	12.916	232.377	16.000
350	24.855	17.904	6.676	9.225	13.737	179.614	13.369
350	19.927	17.567	7.144	8.668	12.195	66.357	24.572
350	25.326	42.917	5.743	8.150	12.767	172.158	26.374
350	21.146	33.480	7.685	11.019	12.721	41.601	10.989
350	22.288	34.461	8.081	10.488	11.262	136.021	22.088
350	23.289	36.793	7.857	12.156	10.908	94.620	18.124
350	18.773	29.228	7.627	13.282	11.482	187.020	19.780
350	21.333	32.537	9.019	9.664	9.204	208.099	26.465
350	22.728	24.529	8.550	7.416	10.710	87.078	28.908
350	17.931	38.663	9.858	9.168	14.347	185.468	31.082
350	22.362	27.810	8.550	8.511	15.678	147.283	22.413
350	26.100	27.343	10.311	9.950	12.068	98.877	34.750
350	23.143	36.298	9.489	10.518	13.492	151.628	17.582
350	15.836	33.549	8.081	9.814	14.667	198.352	22.088
400	21.499	29.882	7.035	8.641	8.127	149.665	17.595
400	18.393	32.722	7.866	4.262	10.048	116.270	17.595
400	21.870	36.955	8.968	5.857	8.048	131.265	19.647
400	20.347	28.427	7.382	7.650	9.484	173.183	21.593
400	13.109	24.536	7.430	4.262	8.998	84.185	29.389



**Table S3.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
400	12.730	39.823	8.293	5.122	11.231	168.478	22.290
400	11.230	18.695	7.941	7.103	8.837	147.899	15.640
400	15.119	34.230	9.268	7.650	11.080	70.588	21.857
400	17.757	38.481	8.519	10.045	10.410	72.269	21.504
400	8.789	36.982	8.644	6.353	10.755	149.618	13.824
400	16.581	37.064	7.462	8.523	8.998	54.773	23.783
400	16.667	39.823	9.865	4.492	9.389	131.040	25.414
400	18.264	35.562	7.635	5.682	7.814	158.459	20.410
400	18.521	34.230	7.252	7.103	9.114	267.835	33.748
400	18.186	24.163	8.685	8.523	11.203	160.318	17.703
400	21.602	22.741	7.866	7.103	10.476	193.579	25.489
400	23.610	27.597	5.710	7.243	9.114	136.902	18.024
400	14.983	28.568	6.847	8.984	8.364	35.189	21.857
400	11.912	35.562	9.756	8.641	9.672	137.070	19.549
400	31.087	36.982	11.220	8.984	9.315	143.366	19.647
400	19.207	27.043	9.865	8.641	9.315	100.637	19.549
400	20.285	29.848	7.588	7.650	8.002	123.410	20.410
400	13.157	31.559	11.005	8.641	6.901	215.975	17.595
400	19.075	31.269	9.204	4.262	9.808	97.767	26.082
400	22.912	35.647	8.119	8.641	9.074	339.475	17.595
450	22.973	22.175	5.645	6.462	10.469	60.043	8.568
450	21.143	23.138	6.643	7.766	10.901	102.833	15.232
450	19.681	26.025	7.263	5.859	9.195	78.642	17.136
450	19.332	27.039	7.424	5.617	12.075	92.387	18.088
450	20.203	18.403	4.777	5.859	11.147	102.502	10.515
450	17.146	18.327	6.756	6.743	8.319	125.753	11.424
450	17.857	16.375	5.645	3.972	9.482	124.943	8.568
450	16.071	22.175	6.898	6.462	9.938	156.269	14.406
450	18.928	16.488	6.311	4.816	9.757	93.339	8.777
450	16.648	20.592	5.587	4.912	10.425	100.929	11.464
450	16.648	26.988	5.019	6.092	11.458	57.151	11.581
450	18.626	14.735	6.050	8.881	8.773	66.667	6.664
450	19.672	26.007	6.311	4.816	8.495	90.619	8.568
450	15.811	20.793	14.907	3.853	8.336	62.947	13.362
450	20.143	19.646	10.154	7.706	8.780	75.213	17.136
450	21.668	18.528	16.111	3.853	6.818	74.554	12.412
450	19.338	24.158	13.132	4.308	7.091	65.715	13.463
450	16.075	20.251	13.597	4.912	8.820	96.269	9.567
450	15.653	17.338	13.333	6.743	10.636	109.591	15.232
450	16.846	20.251	12.074	6.811	10.987	95.218	8.568
450	12.747	30.824	10.750	8.669	9.304	135.304	11.424
450	16.319	19.361	13.333	8.881	8.379	83.607	13.463
450	17.514	20.228	8.000	6.743	7.450	76.876	10.515
450	14.502	19.265	9.428	6.092	8.887	104.758	10.472
450	15.207	16.375	10.667	5.187	8.780	63.847	10.515
500	26.828	34.059	7.090	7.897	5.229	192.247	18.644
500	27.132	36.540	5.532	8.948	7.396	115.836	20.339
500	28.453	34.919	5.639	8.957	7.051	101.980	28.863
500	22.531	34.968	6.195	9.434	8.432	125.551	23.789
500	22.009	35.748	6.150	12.477	8.049	123.592	27.119
500	19.510	33.311	7.343	10.046	7.330	152.954	44.360
500	20.708	33.384	5.973	10.290	7.187	167.081	30.696
500	17.017	36.578	6.252	11.330	6.867	106.046	24.267
500	24.118	29.942	7.964	10.290	7.670	153.054	22.034
500	23.305	29.078	5.350	9.293	7.326	325.543	25.424



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S3.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
500	26.335	25.864	5.913	10.370	7.905	200.240	27.172
500	27.232	29.361	7.040	9.838	6.321	188.235	30.696
500	23.970	30.772	5.380	10.606	6.468	225.703	43.137
500	23.337	30.738	5.639	10.989	8.651	157.462	31.373
500	23.944	31.568	6.628	11.454	7.465	145.310	38.072
500	23.736	29.908	7.930	8.957	6.448	35.511	25.490
500	22.816	25.744	6.252	9.495	9.972	183.026	23.611
500	25.981	29.908	8.009	7.855	7.243	115.836	17.647
500	21.571	22.108	3.982	10.606	8.135	138.148	29.672
500	22.221	28.938	4.861	10.738	6.690	212.671	20.471
500	23.033	34.862	6.758	8.985	6.791	250.321	37.716
500	12.770	32.381	6.233	11.345	7.033	129.427	31.373
500	16.532	31.036	5.416	9.434	7.663	103.996	25.490
500	20.081	36.140	5.880	11.396	5.632	159.358	29.412
500	18.523	20.000	6.252	8.135	8.511	126.564	27.521
550	27.729	25.598	12.813	9.194	7.412	175.413	64.797
550	27.874	22.428	8.813	9.081	13.152	190.612	75.813
550	22.137	30.404	9.908	10.024	9.641	182.500	15.385
550	20.722	24.798	8.798	8.040	10.019	151.440	15.385
550	20.015	16.017	7.763	4.847	9.824	91.431	13.462
550	18.494	35.195	10.880	7.088	10.796	126.324	17.308
550	23.239	26.821	9.156	7.896	10.282	69.998	17.414
550	18.886	26.422	5.867	7.176	10.851	97.244	13.598
550	21.803	18.800	5.681	8.728	11.181	112.667	15.504
550	23.498	28.805	8.183	5.993	7.716	74.408	19.612
550	30.859	21.513	7.208	9.435	8.863	239.074	16.431
550	31.475	21.324	8.934	9.704	8.896	147.660	13.462
550	26.308	17.118	6.002	6.683	10.136	169.001	17.730
550	28.466	28.432	7.105	7.760	8.129	117.273	15.858
550	25.627	21.324	11.987	6.742	9.094	89.325	17.308
550	30.859	18.698	9.881	9.671	6.629	142.053	17.730
550	21.335	24.334	8.971	7.783	7.707	239.294	25.074
550	23.840	32.728	7.685	9.345	8.616	167.004	23.077
550	19.952	27.048	8.783	9.704	8.556	161.181	13.598
550	24.877	21.513	9.988	6.683	8.616	143.675	11.698
550	27.601	22.923	8.059	7.760	10.180	126.563	15.504
550	16.729	21.513	9.689	6.742	10.375	205.933	25.074
550	21.803	17.295	6.836	9.671	10.748	105.283	29.101
550	24.917	18.698	7.763	7.783	9.996	89.325	29.417
550	17.118	27.603	5.084	9.345	7.105	112.667	23.157
600	18.229	29.552	9.480	8.025	12.002	105.817	16.854
600	21.746	25.953	6.507	7.895	14.147	125.817	15.350
600	14.962	25.689	8.023	5.787	15.814	64.496	18.187
600	22.613	28.161	8.147	8.732	16.189	127.296	13.987
600	20.047	29.052	8.418	7.928	18.247	132.359	16.056
600	15.668	24.853	8.134	5.176	18.709	119.042	16.909
600	20.305	35.894	6.964	7.178	18.791	101.332	25.038
600	26.410	20.982	8.398	8.732	15.447	133.919	17.644
600	20.305	14.740	7.701	6.133	19.160	148.788	31.612
600	18.621	18.057	8.379	6.809	14.953	74.412	15.805
600	12.826	18.057	8.523	7.214	18.865	78.139	19.604
600	13.522	18.057	6.573	6.809	12.470	107.470	19.702
600	11.142	17.467	6.135	8.025	13.128	205.103	25.785
600	13.634	22.527	5.925	4.815	13.781	143.980	20.467
600	13.522	19.222	7.932	8.613	16.046	144.596	18.074





**Table S3.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
600	13.181	29.420	7.669	6.174	14.281	203.343	21.564
600	22.235	19.999	8.252	5.919	14.859	125.686	11.762
600	19.174	24.243	6.755	6.809	11.820	110.776	15.683
600	16.601	27.056	8.940	5.742	12.633	122.336	17.752
600	18.351	21.430	6.343	5.075	13.595	139.222	21.564
600	18.027	16.342	9.090	8.025	16.670	134.560	25.485
600	17.227	20.868	5.879	8.025	7.176	90.941	13.723
600	14.960	14.180	6.803	8.025	10.651	96.793	16.121
600	15.000	22.534	6.322	7.214	10.923	150.767	28.066
600	17.905	20.282	6.257	7.214	14.138	176.923	19.996
650	27.802	27.729	7.807	10.018	9.044	147.312	16.762
650	27.647	31.289	7.327	10.120	8.282	145.551	20.082
650	25.518	31.921	6.461	8.905	9.134	149.096	18.181
650	29.219	25.473	6.210	9.177	10.989	105.466	27.332
650	24.867	28.096	6.730	9.217	8.990	70.906	20.082
650	21.745	26.809	6.589	7.896	11.572	69.112	25.518
650	27.947	27.858	6.442	8.587	11.943	161.811	27.272
650	22.216	24.891	6.442	7.173	10.142	119.304	19.999
650	31.563	36.634	6.210	9.969	9.261	60.981	14.545
650	25.941	32.212	5.580	13.474	10.000	90.978	11.059
650	25.039	32.510	6.431	7.691	9.750	106.013	13.236
650	24.877	38.069	5.988	12.909	8.819	103.887	16.464
650	24.968	33.676	6.885	12.915	7.708	58.435	10.909
650	29.150	27.819	6.130	13.754	7.888	134.736	14.545
650	17.088	27.858	5.188	10.937	8.285	69.184	20.082
650	24.333	37.644	5.650	10.525	10.003	80.079	14.658
650	24.177	24.934	6.927	10.880	11.572	53.006	18.272
650	24.177	33.961	5.356	10.744	11.526	300.257	23.705
650	27.647	38.321	5.947	9.582	10.616	76.555	18.181
650	29.002	32.510	5.762	9.582	10.319	165.807	16.363
650	19.914	30.887	7.397	9.809	10.388	80.017	20.082
650	24.051	35.171	6.653	10.298	9.776	98.598	20.730
650	15.893	29.284	5.868	9.759	8.129	94.156	21.893
650	26.308	27.973	5.474	8.666	9.495	101.960	16.363
650	28.941	35.140	6.346	10.357	9.530	118.526	16.464
700	22.142	13.813	9.192	7.216	8.153	136.047	13.725
700	13.827	19.677	9.406	10.096	8.985	227.193	21.922
700	29.141	15.187	8.424	8.113	9.091	81.922	27.521
700	16.320	18.953	6.360	9.230	8.353	148.604	18.078
700	22.236	23.480	8.818	8.895	9.690	279.639	13.153
700	23.037	16.544	5.701	6.490	9.459	81.577	17.647
700	20.412	27.207	6.935	6.336	8.715	97.165	20.471
700	18.087	29.384	7.713	6.004	6.530	58.382	21.118
700	19.419	31.129	8.577	7.533	8.471	78.539	17.756
700	16.421	23.382	7.174	6.428	9.014	196.117	25.490
700	20.989	29.126	7.792	6.307	8.089	299.539	21.922
700	22.567	25.243	6.963	7.139	7.906	167.092	16.169
700	28.212	39.269	5.599	6.313	6.382	75.952	17.538
700	18.829	19.802	5.859	7.346	6.240	74.194	17.647
700	17.964	32.550	8.024	6.513	5.726	111.291	9.804
700	18.829	23.622	6.573	6.421	8.677	108.738	11.765
700	20.002	19.514	5.859	7.905	7.975	188.600	15.808
700	23.676	23.382	8.319	7.824	7.791	104.854	13.865
700	16.562	34.408	8.460	6.296	8.720	75.952	17.647
700	12.694	17.902	8.536	7.407	8.677	138.532	15.686



Changes of wood anatomical characters of selected species of *Araucaria* during artificial charring: implications for palaeontology

Table S3. Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
700	13.298	31.129	5.217	7.824	7.499	132.395	11.927
700	13.634	17.902	7.787	8.578	8.064	79.706	13.865
700	14.574	27.460	8.052	6.092	8.097	135.067	17.538
700	16.622	37.350	6.963	7.660	7.646	155.100	11.765
700	17.029	35.167	6.479	9.011	5.985	109.874	13.865
750	17.240	29.567	5.629	9.536	9.437	162.387	25.019
750	23.083	38.040	5.552	5.686	6.017	156.869	23.122
750	25.082	31.102	4.691	5.861	9.815	161.633	12.835
750	31.334	25.692	5.110	7.108	10.720	161.025	27.018
750	20.864	34.053	6.255	5.861	9.141	80.367	27.176
750	14.381	26.751	7.906	6.031	6.515	146.742	18.539
750	20.852	26.899	6.756	8.529	9.530	72.406	29.434
750	15.478	35.198	6.831	7.108	9.391	75.931	25.781
750	15.760	28.159	4.763	6.357	10.059	183.933	28.252
750	24.205	25.499	5.629	8.991	9.261	78.706	26.966
750	21.732	46.547	5.567	8.289	7.974	77.998	32.022
750	22.524	27.082	7.029	6.357	7.200	92.575	30.523
750	23.744	29.700	6.152	5.686	8.504	231.437	16.854
750	31.346	30.975	7.614	7.248	9.453	184.850	20.224
750	15.082	17.128	5.852	6.357	10.960	136.915	20.224
750	16.623	22.527	7.120	7.248	10.654	170.463	22.486
750	17.448	31.007	5.918	8.647	11.674	137.577	21.910
750	24.391	26.751	7.906	7.248	7.863	186.810	25.280
750	12.694	34.053	5.234	8.647	7.607	213.025	21.910
750	13.298	28.194	5.009	10.052	9.672	75.931	20.224
750	13.634	25.382	6.730	8.529	10.675	183.933	20.224
750	14.574	29.867	7.239	5.861	8.002	78.706	22.486
750	16.622	22.571	8.611	7.108	9.580	77.998	21.910
750	17.029	30.975	5.882	7.108	10.200	92.575	25.280
750	17.240	23.935	5.340	8.289	9.530	136.915	21.910
800	19.280	24.781	5.862	6.420	9.616	77.367	21.568
800	16.497	24.446	5.488	5.919	11.821	90.956	19.607
800	18.907	21.533	4.518	10.150	10.130	79.038	11.764
800	16.490	27.275	6.869	7.319	9.828	116.492	19.705
800	19.841	23.147	7.804	5.742	10.472	98.211	29.671
800	20.129	30.283	5.253	7.319	11.262	98.054	23.528
800	18.122	20.302	4.857	4.306	10.596	39.263	19.607
800	18.841	24.446	5.315	5.742	11.311	96.074	23.528
800	19.554	20.098	5.063	5.919	11.821	128.406	21.921
800	20.984	31.582	7.143	5.742	9.353	112.599	19.607
800	17.529	25.880	6.905	4.306	9.004	92.173	21.921
800	18.841	21.960	5.151	2.871	11.981	100.685	14.274
800	24.218	23.013	6.135	5.176	9.972	158.828	13.864
800	19.023	18.717	5.496	4.306	9.391	151.887	27.520
800	21.530	21.960	4.882	5.742	10.130	142.038	23.853
800	15.644	23.013	4.580	5.919	12.148	72.784	18.077
800	14.643	24.446	5.214	5.742	12.913	115.681	26.668
800	21.496	21.581	5.890	4.306	11.622	77.565	13.517
800	19.105	24.781	4.616	2.871	11.259	93.571	18.278
800	22.185	23.013	5.862	5.176	11.550	84.474	12.924
800	24.218	24.573	6.975	4.306	10.785	131.111	10.340
800	19.023	23.013	5.421	6.420	9.884	127.153	15.509
800	21.530	24.573	7.166	7.824	9.633	149.699	20.840
800	15.644	25.880	5.966	8.578	9.567	151.258	33.999
800	14.643	27.275	4.686	6.092	9.009	112.195	23.407



**Table S4.** Measurements taken from *Araucaria columnaris* wood samples before and after charring in the present study.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
in natura	21.045	16.557	9.227	8.008	13.652	135.088	23.359
in natura	21.305	14.482	9.509	7.213	12.742	108.525	16.415
in natura	29.603	13.217	8.077	7.864	12.964	126.695	26.391
in natura	24.645	9.864	7.758	7.911	11.528	165.355	16.576
in natura	24.586	13.217	8.291	8.247	12.631	130.673	24.865
in natura	19.237	13.168	8.113	9.188	14.222	137.340	19.388
in natura	21.305	11.909	9.798	10.276	13.010	62.723	23.483
in natura	20.239	10.603	8.939	9.771	13.073	69.385	15.195
in natura	15.284	13.872	7.349	10.360	11.974	193.494	22.145
in natura	15.232	13.168	6.439	8.671	10.145	108.074	18.648
in natura	17.605	9.229	7.800	9.905	12.033	77.345	21.517
in natura	20.416	17.803	8.655	8.286	10.048	69.385	22.996
in natura	18.282	15.795	9.071	9.370	10.256	100.000	20.133
in natura	22.414	11.198	7.708	8.814	11.659	88.252	28.832
in natura	23.600	9.229	8.376	8.166	10.590	169.758	28.832
in natura	24.030	13.299	7.018	11.342	10.867	139.587	17.213
in natura	23.542	13.872	8.617	9.764	12.198	147.687	15.844
in natura	17.969	15.836	9.227	10.917	12.477	84.042	27.592
in natura	13.297	17.097	7.849	9.330	13.435	217.595	25.860
in natura	22.804	11.855	7.035	11.185	12.477	151.379	24.385
in natura	20.788	12.494	8.344	8.988	9.955	65.333	17.273
in natura	22.145	10.542	7.377	11.254	12.437	85.427	23.351
in natura	26.370	10.705	7.984	9.827	11.505	76.012	25.051
in natura	18.595	17.110	8.720	9.941	11.821	108.206	18.648
in natura	18.417	14.526	7.106	9.196	13.593	159.025	14.416
50	25.314	38.040	9.718	11.780	12.060	104.724	31.688
50	24.557	31.007	8.741	11.131	12.927	78.946	37.295
50	24.697	59.200	9.147	11.952	15.533	172.186	25.979
50	27.785	38.040	8.286	11.646	15.164	167.884	31.558
50	18.646	38.429	8.595	11.503	14.624	200.396	40.267
50	22.432	36.633	10.037	7.318	14.922	229.550	28.832
50	24.739	50.686	8.403	11.205	12.721	179.311	31.688
50	22.379	40.854	10.428	12.410	12.121	150.643	22.951
50	22.489	41.048	9.765	11.610	13.503	186.675	25.820
50	23.685	41.048	9.731	11.286	12.366	177.922	28.689
50	17.911	35.198	7.149	11.879	12.357	224.433	28.832
50	23.255	33.790	9.183	10.226	11.918	215.185	25.979
50	19.481	36.606	6.054	11.324	12.125	221.369	37.295
50	18.356	32.505	10.349	12.534	11.064	339.305	37.734
50	23.866	24.100	9.214	10.777	13.757	246.990	20.286
50	21.927	29.600	9.781	12.234	13.435	364.359	22.951
50	25.628	32.382	10.198	10.989	12.712	304.223	29.257
50	18.356	38.040	9.819	11.787	13.341	215.185	17.213
50	16.125	32.382	5.966	11.725	12.073	143.559	31.688
50	28.583	29.567	8.122	12.624	11.678	216.709	22.951
50	27.885	35.198	9.293	10.160	13.270	126.231	20.082
50	18.964	33.908	8.066	12.604	13.549	209.507	25.820
50	24.883	35.198	8.802	11.584	16.286	275.472	35.486
50	18.964	39.447	8.291	10.123	13.503	336.100	31.558
50	24.079	35.000	11.117	10.490	15.505	222.093	25.979
100	22.294	27.938	8.376	11.229	12.262	156.413	31.558
100	18.027	32.483	7.917	9.820	9.487	265.375	32.992
100	19.220	44.137	7.520	9.166	9.559	97.921	37.295
100	20.183	38.259	7.239	9.966	9.135	113.900	28.725
100	28.085	33.852	7.576	12.499	12.362	244.061	30.123



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
100	22.400	30.879	7.267	12.303	11.172	169.270	24.554
100	19.357	45.583	6.528	10.059	12.989	118.495	25.979
100	21.652	39.810	8.728	11.115	9.572	146.762	22.951
100	19.553	26.468	9.812	10.219	12.936	134.172	27.405
100	23.091	32.349	7.255	10.765	10.600	186.830	30.157
100	24.015	32.383	8.077	11.316	10.269	121.961	28.689
100	22.803	36.790	8.213	10.487	10.065	103.290	25.860
100	15.727	32.383	7.321	10.690	11.818	113.900	28.689
100	20.248	29.555	9.054	11.954	10.013	196.523	30.123
100	18.177	30.914	6.687	12.425	11.774	239.762	21.707
100	18.892	33.820	7.750	10.376	11.310	120.501	32.992
100	20.891	47.146	8.077	12.797	7.997	252.722	40.267
100	18.164	45.960	6.637	12.392	10.600	108.535	18.648
100	20.920	25.840	6.200	12.963	8.561	107.669	18.703
100	25.373	33.017	7.295	10.979	10.419	269.770	28.725
100	26.478	31.615	8.494	13.048	9.733	107.822	18.867
100	20.698	46.027	8.446	11.519	10.047	115.327	25.979
100	21.362	30.181	7.051	11.229	12.107	149.209	24.554
100	16.944	30.146	7.016	11.817	10.600	101.845	27.592
100	22.448	40.298	7.051	11.151	9.481	114.764	26.176
150	33.624	42.743	9.835	9.149	11.479	278.847	24.166
150	29.963	27.010	9.523	9.909	11.240	203.751	27.158
150	26.641	24.167	9.456	7.929	11.695	184.530	27.158
150	23.247	22.790	8.133	9.389	10.793	79.565	24.540
150	20.591	44.070	8.998	11.718	12.123	199.925	24.333
150	33.344	21.324	8.753	12.303	12.901	101.797	18.697
150	36.678	38.383	6.506	6.396	11.237	284.490	21.370
150	31.630	38.620	7.915	7.245	14.687	223.190	27.047
150	31.345	29.888	8.210	8.452	11.178	132.426	22.789
150	38.375	32.820	8.313	9.247	11.411	269.124	24.333
150	43.210	34.118	8.313	10.977	10.639	227.219	18.480
150	29.591	34.384	9.759	8.615	11.783	139.424	21.323
150	23.994	30.157	11.137	7.534	11.522	109.450	15.637
150	30.554	38.383	8.294	7.298	11.890	239.845	22.789
150	31.305	41.324	8.236	10.907	10.274	113.134	24.540
150	26.905	27.010	8.159	9.933	12.092	234.745	27.601
150	29.219	38.802	8.458	13.452	11.554	117.924	25.627
150	21.258	34.384	10.090	9.529	10.906	135.315	31.403
150	25.059	36.962	9.846	10.064	12.977	156.685	18.480
150	25.388	35.569	7.834	12.580	12.031	251.222	21.512
150	22.975	35.654	8.338	9.023	13.760	179.255	17.118
150	25.395	32.728	6.215	12.183	12.948	125.224	15.701
150	25.100	27.048	7.587	13.868	13.784	361.115	20.104
150	30.998	32.820	9.434	8.877	10.701	146.591	22.745
150	23.164	35.569	8.210	8.877	13.187	246.258	17.118
200	21.912	51.756	9.972	10.513	13.387	134.916	34.863
200	25.954	30.491	9.061	9.048	12.684	218.378	39.580
200	19.009	38.919	7.826	10.091	13.267	360.258	39.512
200	24.611	41.390	10.682	10.012	12.007	245.507	27.987
200	21.758	44.374	10.654	9.148	11.907	274.276	36.081
200	16.693	57.180	7.179	7.466	12.138	297.385	32.539
200	16.901	32.077	8.601	10.803	14.528	302.138	26.500
200	14.880	32.722	10.105	11.659	12.574	295.062	21.047
200	13.538	45.936	9.713	11.177	14.569	190.716	23.242
200	15.705	57.861	11.576	8.804	9.381	151.015	20.918
200	24.317	51.103	13.233	9.492	15.611	344.092	30.215



**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
200	23.385	42.140	9.081	6.162	14.181	339.235	27.987
200	18.315	39.119	9.701	9.842	12.762	248.565	32.539
200	20.238	34.281	12.366	10.735	10.783	329.017	19.166
200	18.347	43.662	9.081	9.279	14.528	160.005	39.580
200	14.482	36.566	8.706	11.823	11.376	358.752	27.891
200	23.122	30.060	11.214	9.958	9.653	214.113	39.512
200	12.851	41.390	9.114	9.817	13.267	254.644	25.985
200	15.298	50.278	9.850	11.951	13.267	310.464	33.278
200	15.100	52.613	9.701	9.101	11.585	164.462	25.566
200	14.355	48.480	9.607	8.346	9.797	225.315	27.891
200	18.860	38.852	11.983	9.389	12.007	202.943	25.566
200	9.764	48.210	9.409	9.101	12.188	90.220	39.512
200	10.547	45.765	8.601	11.322	9.612	139.685	27.891
200	9.000	59.596	10.801	11.112	12.574	149.766	25.566
250	42.940	26.978	8.398	12.829	12.712	269.897	35.330
250	47.534	47.634	8.532	13.407	12.036	172.480	29.807
250	35.728	32.188	9.032	10.085	9.501	209.609	27.232
250	30.653	35.114	7.173	9.225	10.786	160.806	32.629
250	24.958	30.550	7.802	10.116	11.487	304.673	21.678
250	21.833	35.236	6.187	8.951	10.609	158.327	32.517
250	37.484	29.262	6.416	10.943	11.418	189.491	19.161
250	24.700	41.896	6.684	8.704	12.356	169.491	27.097
250	26.823	26.498	7.439	11.426	12.755	146.875	21.678
250	26.514	44.281	8.885	12.829	13.893	252.720	21.678
250	25.829	41.071	8.920	12.376	12.036	267.149	24.387
250	27.330	38.040	9.080	11.845	11.330	137.842	24.982
250	27.053	49.745	7.473	11.845	11.021	191.245	30.296
250	25.986	38.153	9.272	11.534	10.899	218.504	35.226
250	35.761	40.966	7.094	10.116	13.294	186.819	29.930
250	34.588	35.598	7.225	11.169	12.842	198.437	24.387
250	31.872	32.321	8.240	9.020	13.252	212.538	29.930
250	29.815	38.153	8.179	9.610	11.222	187.699	21.846
250	32.254	33.363	8.217	10.187	11.840	235.499	30.296
250	16.040	36.195	6.337	11.757	11.812	258.652	22.345
250	23.536	29.408	6.768	11.854	12.989	260.320	21.846
250	26.497	41.896	8.398	10.800	12.712	237.173	21.846
250	35.825	40.966	6.386	11.019	12.036	244.649	24.387
250	17.700	23.409	7.866	12.764	13.219	347.982	19.727
250	28.801	43.990	5.534	11.924	12.712	293.202	21.678
300	21.469	24.553	6.591	9.843	5.727	200.137	35.829
300	26.940	27.632	5.907	7.911	6.400	241.996	44.886
300	37.189	20.147	9.206	9.141	7.600	237.965	51.108
300	24.878	25.903	8.805	8.040	7.515	212.516	29.858
300	24.898	24.868	7.850	8.446	6.053	135.549	41.907
300	18.075	64.014	6.591	9.546	6.812	173.407	38.815
300	31.958	76.000	7.816	9.295	6.905	301.579	30.007
300	22.865	81.726	5.092	8.667	5.441	343.378	29.858
300	22.386	54.926	5.996	9.041	7.244	140.364	32.844
300	23.461	60.133	8.052	8.497	7.515	218.044	32.844
300	23.440	60.015	8.805	9.041	6.835	212.327	29.858
300	21.843	64.056	7.747	10.123	5.946	212.180	26.872
300	22.974	31.558	7.686	8.488	7.920	83.655	27.037
300	24.396	31.688	10.609	8.185	6.882	220.948	35.954
300	35.177	31.688	6.621	6.157	5.906	167.337	27.037
300	36.128	34.546	7.909	5.678	6.248	202.263	23.886



**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
300	25.385	37.734	6.985	5.956	5.012	116.599	32.979
300	32.092	28.832	7.756	9.681	10.969	177.070	27.528
300	22.119	37.406	8.018	11.542	6.004	182.524	17.915
300	26.383	34.546	5.569	4.781	10.577	217.983	30.007
300	16.650	28.689	6.385	6.202	10.096	175.248	20.900
300	25.371	40.164	6.869	6.482	7.788	191.113	27.037
300	17.412	31.558	9.492	11.244	7.611	155.719	26.872
300	24.391	34.546	5.235	6.554	8.000	227.410	30.449
300	28.293	29.711	6.722	7.586	9.000	234.436	30.449
350	19.659	24.628	7.666	6.051	8.338	178.870	30.462
350	21.964	27.321	7.914	8.884	11.551	150.163	21.245
350	17.817	22.319	6.787	9.563	12.290	163.460	32.359
350	20.510	28.954	9.144	8.168	8.821	317.473	28.755
350	20.347	29.685	6.272	8.038	8.900	266.134	19.002
350	22.452	31.991	7.455	8.861	7.955	200.422	26.873
350	20.115	21.654	6.870	4.004	8.373	180.557	32.802
350	25.774	27.288	6.477	7.306	10.344	233.723	17.207
350	22.545	27.972	6.680	7.361	11.338	171.027	28.503
350	20.798	26.623	9.159	6.378	8.254	226.321	26.603
350	22.266	25.633	7.161	4.858	10.108	173.292	41.976
350	18.730	28.969	7.982	5.205	9.370	328.424	36.303
350	24.665	26.973	8.007	6.964	9.684	226.250	28.503
350	18.774	30.886	6.753	8.600	7.716	178.658	20.988
350	14.756	28.964	7.609	9.020	9.486	79.898	22.881
350	16.447	34.733	6.787	7.400	8.750	138.726	34.256
350	24.593	19.363	6.392	7.148	9.826	152.122	20.988
350	22.073	23.439	8.090	10.157	8.847	182.428	27.206
350	18.813	23.120	6.653	8.600	7.889	127.822	30.462
350	17.480	25.046	6.085	10.824	9.470	104.941	39.949
350	21.027	21.193	6.795	10.193	9.505	110.619	41.847
350	19.547	42.430	6.974	9.979	9.700	146.314	46.233
350	18.182	40.460	8.395	6.683	11.568	221.410	43.704
350	17.764	27.042	6.848	6.171	8.498	190.625	30.933
350	17.817	26.973	7.472	6.616	7.377	110.619	40.309
400	22.795	20.400	7.128	10.519	5.902	220.971	35.158
400	25.984	23.999	6.856	11.526	6.666	193.959	21.281
400	26.860	25.224	5.804	11.284	8.030	175.100	40.643
400	25.728	26.902	5.531	11.153	7.346	203.776	69.786
400	26.575	35.602	3.829	9.965	6.409	72.281	40.870
400	23.849	27.198	4.917	9.826	8.390	156.660	28.964
400	23.344	35.275	6.383	11.689	7.717	205.437	30.826
400	23.489	44.807	5.858	9.956	8.995	167.599	42.386
400	22.472	35.193	8.165	7.076	5.438	234.505	38.581
400	19.667	27.214	5.138	8.020	8.829	155.932	51.409
400	20.546	32.603	7.038	7.951	6.286	159.825	32.979
400	18.532	33.396	5.939	6.635	7.501	217.574	38.725
400	18.820	31.602	5.919	7.028	6.885	216.900	30.886
400	18.445	30.886	5.191	7.485	6.046	310.224	33.259
400	18.125	28.964	5.694	6.915	8.076	190.299	34.733
400	19.533	39.296	4.860	7.485	6.286	169.401	34.733
400	16.118	23.200	5.972	6.915	7.079	178.899	34.680
400	16.542	40.643	4.925	6.794	5.909	232.103	34.733
400	16.094	39.296	6.530	7.611	5.385	116.005	42.430
400	21.450	38.581	5.415	6.635	8.750	156.487	56.171
400	23.688	44.480	5.777	6.943	7.341	209.196	44.480



**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
400	31.071	44.978	5.972	5.977	7.090	239.653	29.472
400	28.230	38.581	5.379	6.411	8.622	167.372	31.066
400	17.323	19.363	4.811	6.411	6.286	145.123	34.733
400	22.404	26.973	4.811	5.685	6.312	201.779	34.733
450	20.709	33.510	5.134	11.848	8.810	223.447	59.705
450	24.453	46.462	7.074	11.078	9.535	277.508	35.146
450	16.067	43.084	6.926	9.970	7.665	246.646	50.993
450	20.559	36.132	6.969	10.220	8.907	349.559	27.032
450	21.539	45.068	6.937	10.702	8.432	181.083	61.752
450	18.897	19.201	7.301	8.744	9.307	238.891	36.644
450	22.338	29.579	6.205	10.728	6.942	254.820	44.673
450	22.622	29.620	5.401	8.441	6.837	175.940	55.152
450	17.113	23.984	6.553	11.276	9.121	206.305	39.282
450	11.293	23.994	7.734	11.107	7.409	198.684	36.594
450	22.415	23.612	6.264	8.045	8.100	112.187	34.721
450	20.878	20.020	6.205	10.392	7.321	291.460	36.644
450	22.142	23.132	5.874	9.413	5.686	234.977	31.353
450	23.037	36.327	6.937	9.603	7.956	210.250	40.856
450	23.037	28.774	5.986	10.801	8.247	179.489	52.001
450	18.336	30.660	7.923	9.269	7.529	107.855	44.465
450	23.512	39.976	5.163	10.080	7.929	157.942	25.696
450	16.509	36.178	9.394	10.021	8.158	127.828	42.372
450	16.820	28.585	7.848	8.423	9.371	202.457	36.594
450	15.964	32.325	8.604	10.392	9.444	263.923	43.452
450	23.676	28.774	6.169	9.197	7.665	235.167	40.491
450	20.878	36.178	7.095	10.903	5.776	131.320	40.491
450	18.486	26.891	6.926	7.765	6.761	221.563	46.264
450	18.166	30.423	8.474	8.427	7.321	171.510	46.583
450	18.142	28.522	9.267	10.123	6.742	229.999	59.830
500	21.771	25.588	5.141	5.264	7.992	119.053	31.172
500	23.160	27.009	5.538	7.498	9.484	89.787	37.693
500	26.885	24.877	5.500	6.498	8.553	201.763	36.961
500	23.197	34.183	7.646	5.042	9.558	112.067	36.244
500	28.627	20.625	4.810	6.879	10.373	94.659	27.549
500	32.226	14.233	4.717	6.606	8.970	109.297	21.017
500	26.523	14.926	5.322	9.619	9.903	119.293	35.512
500	10.571	26.385	5.953	6.436	8.139	204.909	33.346
500	22.617	37.671	5.720	7.331	9.684	114.853	25.459
500	13.430	27.047	5.227	7.744	8.893	127.218	30.473
500	25.810	34.117	5.538	6.156	8.248	117.492	34.795
500	24.940	16.409	5.023	6.903	8.265	93.036	34.070
500	28.311	21.323	6.443	7.023	8.986	160.029	41.715
500	20.445	24.177	6.040	6.760	8.029	97.571	33.346
500	26.877	14.943	5.774	10.851	8.504	123.188	32.621
500	24.619	19.902	4.627	8.906	7.501	106.831	18.968
500	28.345	25.588	5.567	9.061	7.182	92.049	35.126
500	17.750	21.323	5.307	10.289	7.170	111.846	31.223
500	24.702	17.058	5.262	7.699	6.484	126.858	27.390
500	21.683	22.034	5.966	10.461	8.214	166.158	27.320
500	11.008	25.676	5.761	9.525	7.324	193.674	33.174
500	16.698	15.653	5.307	8.927	8.823	109.350	31.284
500	12.156	26.385	4.206	9.169	9.185	81.983	27.597
500	18.198	22.080	4.604	8.815	8.295	113.250	31.284
500	22.768	27.756	5.018	8.507	8.032	96.117	35.610
550	21.771	68.339	5.118	10.824	10.123	123.757	25.880





**Changes of wood anatomical characters of selected species of  
*Araucaria* during artificial charring: implications for palaeontology**

**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
550	23.160	62.505	5.160	10.558	11.795	137.999	23.147
550	26.885	78.118	5.365	9.421	11.466	71.777	36.003
550	23.197	47.872	6.236	11.875	11.448	143.619	24.446
550	28.627	71.320	5.440	9.958	10.106	185.457	43.090
550	32.226	76.241	6.042	11.934	9.509	132.265	41.730
550	26.523	73.213	5.851	11.223	9.099	128.943	22.969
550	10.571	69.335	5.196	10.543	9.933	116.421	34.453
550	22.617	19.854	5.097	11.524	10.583	125.189	28.854
550	13.430	20.572	4.422	10.976	10.312	183.266	21.533
550	25.810	21.894	4.671	10.376	10.142	76.097	34.453
550	24.940	17.105	6.381	10.630	10.474	133.575	30.283
550	28.311	21.937	4.630	7.317	11.220	217.569	24.446
550	20.445	16.773	7.338	8.282	10.650	85.291	40.195
550	26.877	32.157	4.613	7.265	10.270	123.465	27.613
550	24.619	19.889	4.968	4.583	10.691	153.931	23.147
550	28.345	22.672	4.512	5.709	10.691	140.690	36.003
550	17.750	12.316	6.489	6.018	10.691	129.398	35.917
550	24.702	15.068	5.428	4.703	8.540	157.936	37.352
550	21.683	24.717	5.745	4.727	9.017	143.561	37.352
550	11.008	13.684	4.766	5.485	9.286	179.810	40.195
550	16.698	15.068	4.528	6.740	7.570	132.101	37.434
550	12.156	17.119	4.689	7.412	8.238	160.787	30.181
550	18.198	18.787	4.264	6.440	9.764	133.698	35.917
550	22.768	21.894	4.574	6.292	9.699	135.132	24.446
600	20.829	10.346	7.178	6.680	9.161	107.731	37.344
600	19.288	19.520	6.037	7.480	7.783	257.109	40.595
600	17.697	19.076	6.469	6.056	9.353	225.355	37.317
600	17.603	19.076	5.318	6.756	8.741	169.386	43.082
600	19.940	14.704	5.014	5.751	8.237	177.996	31.868
600	19.155	17.618	5.365	6.368	7.364	135.403	31.608
600	20.734	21.946	6.068	4.995	8.102	123.733	37.756
600	23.212	14.704	6.745	5.420	9.303	163.928	27.270
600	21.766	21.995	3.964	5.132	7.402	152.138	37.564
600	19.242	19.244	5.014	3.823	9.459	297.225	38.779
600	17.657	18.097	5.771	3.872	7.924	274.136	33.011
600	20.584	25.044	4.609	4.903	9.009	137.905	30.175
600	26.762	23.591	5.365	3.090	9.281	185.705	40.213
600	14.887	19.076	5.329	4.007	7.034	252.672	33.042
600	18.031	13.168	4.663	5.138	9.715	109.080	45.068
600	19.172	19.076	4.327	4.488	6.416	179.500	34.714
600	19.304	25.044	5.605	3.971	8.165	189.591	33.042
600	22.343	21.946	5.400	5.405	6.478	221.408	31.706
600	16.926	20.535	5.847	4.754	7.305	180.934	29.589
600	11.673	26.335	5.318	4.252	9.554	221.259	30.447
600	16.770	11.796	5.943	5.304	5.354	180.895	33.782
600	21.963	19.244	4.385	4.065	5.962	156.608	44.516
600	17.034	16.682	5.605	2.859	8.237	138.151	43.082
600	19.639	20.535	4.822	4.948	7.174	179.500	41.845
600	23.528	17.799	7.169	5.304	8.394	176.683	30.175
650	20.371	37.755	5.188	6.661	5.300	230.887	59.713
650	16.211	24.488	7.094	6.410	6.472	187.638	54.011
650	14.832	24.957	5.352	7.965	6.864	243.750	64.354
650	17.317	15.992	4.694	6.633	6.084	161.370	55.450
650	15.274	28.244	5.131	8.026	6.282	183.705	63.960
650	20.018	21.162	2.979	8.139	6.585	172.457	75.545



**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
650	18.103	16.047	5.330	7.965	5.324	131.533	68.357
650	19.561	22.097	4.807	9.091	6.560	100.363	39.823
650	18.837	11.371	5.131	6.769	6.000	180.515	46.990
650	18.665	32.923	5.877	7.741	4.639	187.702	40.201
650	16.928	27.754	6.420	6.876	4.720	142.134	56.924
650	18.043	19.752	6.179	6.850	5.918	193.385	74.032
650	15.922	23.157	5.419	5.675	6.224	132.192	56.871
650	13.862	12.224	6.336	8.432	6.273	149.301	55.432
650	18.767	16.932	5.634	6.850	6.560	167.718	59.713
650	19.119	27.272	4.199	5.322	6.317	249.062	73.909
650	19.604	17.865	3.468	9.071	5.745	206.172	67.044
650	11.995	28.683	3.820	9.818	6.851	149.301	55.505
650	15.149	20.692	6.461	8.432	6.154	224.859	63.960
650	12.800	16.455	4.156	9.916	4.219	165.267	88.226
650	17.885	26.183	4.262	7.354	6.000	189.038	54.309
650	17.617	32.428	5.744	8.049	7.069	159.247	58.706
650	17.061	20.000	6.630	8.367	7.072	200.413	63.976
650	17.731	29.760	4.713	7.330	7.529	122.367	62.539
650	16.559	25.303	4.694	10.164	7.231	164.930	55.432
700	20.643	23.249	7.906	7.164	10.418	264.748	41.408
700	15.928	35.427	8.089	5.679	10.967	278.616	45.893
700	19.358	22.657	7.366	11.113	11.076	285.438	50.396
700	22.352	14.759	9.014	5.946	12.528	114.217	37.811
700	24.948	20.615	7.755	7.689	11.736	277.796	47.328
700	26.071	24.491	7.034	10.875	10.686	238.022	58.433
700	20.435	21.035	8.175	10.556	11.027	245.686	44.075
700	16.463	33.333	8.234	9.986	11.483	270.969	62.984
700	17.572	37.694	6.002	9.904	10.429	215.703	55.116
700	18.326	28.910	7.050	10.889	11.743	195.499	72.426
700	19.849	26.700	7.055	11.622	11.366	292.888	44.075
700	34.398	49.232	9.235	10.417	11.513	223.877	45.649
700	17.235	31.042	7.097	9.882	11.762	329.171	56.689
700	18.017	35.546	7.636	10.463	13.253	299.493	48.797
700	23.378	48.781	6.445	10.171	10.526	258.157	41.048
700	20.385	30.159	8.157	8.004	12.004	181.022	53.612
700	20.104	25.281	7.708	8.428	12.879	180.006	39.635
700	25.637	23.149	7.882	9.565	11.200	216.019	44.522
700	15.944	31.357	10.589	9.955	12.339	207.781	46.081
700	16.432	24.790	10.091	9.175	11.166	200.134	48.797
700	19.642	31.121	8.175	6.817	9.932	269.213	45.075
700	19.119	19.956	7.669	9.992	11.327	234.673	37.909
700	14.397	26.608	6.002	10.216	12.506	327.417	45.757
700	24.807	13.304	9.822	9.882	10.836	218.800	48.822
700	18.270	26.700	10.336	9.961	10.843	266.191	45.757
750	8.724	18.298	7.059	7.554	12.258	145.039	45.754
750	14.668	16.438	9.128	9.254	11.742	116.550	49.560
750	17.005	14.574	6.012	7.958	10.522	133.726	43.851
750	14.974	13.038	8.387	7.958	10.369	159.247	36.390
750	13.782	9.942	6.817	6.635	10.002	182.020	24.762
750	12.851	10.548	8.017	7.151	11.206	200.413	20.952
750	10.917	9.658	7.059	6.867	11.034	233.207	24.762
750	8.041	9.323	8.043	8.840	10.785	141.292	40.045
750	9.315	9.487	8.345	6.639	11.492	152.481	30.536
750	9.762	5.271	9.789	5.039	7.423	188.154	51.990
750	9.710	17.409	9.983	5.651	6.856	126.507	31.007
750	9.406	7.371	7.805	5.534	11.247	233.168	50.071



Changes of wood anatomical characters of selected species of *Araucaria* during artificial charring: implications for palaeontology

**Table S4.** Cont.

Temperature °C	Lume Diameter (µm)	Traqueid Diameter (µm)	Cross-field Pitting (µm)	Tangential Pitting (µm)	Radial Pitting (µm)	Ray Height (µm)	Ray Width (µm)
750	10.125	9.183	6.911	6.651	10.540	139.754	49.767
750	6.886	8.157	6.429	8.394	10.540	172.005	25.584
750	11.783	7.602	9.548	7.554	9.511	184.588	36.982
750	9.814	7.627	7.846	7.687	11.539	109.673	32.691
750	6.664	7.500	7.301	7.779	10.511	190.798	31.302
750	8.953	11.490	8.742	6.361	10.766	249.027	31.398
750	8.672	8.993	9.307	6.825	11.372	221.993	44.267
750	9.620	16.136	10.970	6.282	10.339	145.167	25.584
750	11.304	17.996	8.384	7.826	9.669	207.693	36.982
750	14.188	9.308	7.910	7.336	10.197	90.621	54.011
750	10.281	12.097	9.011	6.177	8.970	214.588	41.243
750	9.775	6.829	6.877	6.879	9.854	183.772	25.584
750	9.000	16.748	8.554	9.005	10.161	150.841	28.568
800	15.431	14.198	7.250	11.996	11.087	184.168	34.510
800	18.842	19.797	7.255	8.672	12.601	157.847	34.456
800	15.029	21.218	7.782	9.642	12.555	187.933	40.607
800	20.019	20.474	8.540	11.105	8.256	210.984	44.069
800	16.862	21.949	8.765	11.105	11.605	159.281	38.476
800	19.723	25.603	9.005	7.193	10.650	252.608	32.598
800	17.236	20.487	8.289	8.205	9.933	219.848	44.689
800	18.440	18.280	8.217	10.217	11.566	225.248	34.456
800	17.750	13.243	7.285	7.299	10.465	255.527	31.162
800	17.097	10.993	6.608	7.569	10.691	96.204	42.157
800	13.643	9.506	7.582	8.302	10.518	220.036	38.476
800	14.208	20.591	8.960	10.212	11.814	112.629	49.807
800	14.418	21.218	7.973	10.131	10.460	262.518	36.572
800	15.398	11.699	7.582	9.833	10.852	252.526	44.028
800	15.940	11.185	7.724	10.888	10.123	152.726	38.333
800	17.351	23.410	10.157	10.131	11.160	169.391	42.865
800	15.503	23.399	7.851	9.551	11.613	228.094	46.879
800	13.579	25.592	8.289	10.895	11.599	179.769	45.415
800	19.099	24.404	5.099	9.303	11.434	107.822	38.099
800	19.099	26.151	6.211	9.861	10.078	230.673	39.778
800	18.494	28.804	7.334	8.604	7.963	134.216	43.090
800	19.494	31.657	8.839	8.996	9.325	162.992	41.104
800	20.298	32.044	7.754	8.530	9.323	178.035	39.562
800	19.500	47.637	6.118	8.511	9.993	140.577	39.562
800	15.000	31.819	8.598	8.043	10.296	96.018	44.025

