Table S1. Free Sugar and sugar alcohol profile of Mongolian *I. obliquus* extracts obtained by different green extraction techniques (g/kg).

g/kg		IM-MW 96% ETOH	IM-MW 50% ETOH	IM-MW water	IM-VAE 96% ETOH	IM-VAE 50% ETOH	IM-VAE water	IM-SWE 200°C	IM-SWE 120°C
Sor	avg	1.552	1.986	2.014	2.024	2.236	2.526	4.775	4.769
	sd	0.021^{bc}	0.034^{e}	0.022^{e}	0.053^{e}	0.085^{f}	0.102^{g}	0.039^{i}	0.118^{i}
	RSD	1.350	1.712	1.112	2.622	3.790	4.028	0.824	2.472
Tre	avg	0.256	0.335	0.825	0.785	0.896	0.994	1.107	0.606
	sd	0.003^{ab}	0.005^{cd}	0.009^{i}	0.013^{i}	0.020^{j}	0.022^{k}	0.031^{l}	0.004^{g}
	RSD	1.108	1.464	1.102	1.684	2.270	2.164	2.770	0.670
Ara	avg	0.452	0.501	0.689	1.087	1.552	1.583	1.715	1.645
	sd	0.010^{d}	0.011^{d}	0.017^{e}	0.023^{f}	0.032^{h}	0.026^{h}	0.042^{j}	0.033^{ij}
	RSD	2.170	2.104	2.462	2.136	2.046	1.316	2.470	1.992
Glu	avg	16.789	18.663	21.023	22.657	25.852	28.114	64.545	54.842
	sd	0.316^{a}	0.371^{b}	0.368^{c}	0.044^{cd}	0.036^{f}	0.571^{h}	0.733^{k}	0.924^{j}
	RSD	1.884	1.986	1.750	0.104	0.064	0.904	1.136	1.684
Fru	avg	7.996	8.322	11.356	4.332	6.332	12.536	2.262	4.277
	sd	0.079^{d}	0.110^{d}	0.168^{f}	0.062^{b}	0.104^{c}	0.221^{g}	0.062^{a}	0.107^{b}
	RSD	0.986	1.316	1.482	1.424	1.644	1.764	2.730	2.512
Sac	avg	5.663	8.652	13.223	5.214	7.896	10.336	0.931	0.990
	sd	0.151^{f}	0.210^{h}	0.415^{j}	0.128^{f}	0.204^{g}	0.312^{i}	0.027^{b}	0.025^{b}
	RSD	2.672	2.428	3.136	2.446	2.589	3.023	2.874	2.552
Tur	avg	1.332	1.542	1.986	0.908	1.425	1.789	6.623	8.758
	sd	0.042^{bc}	0.055^{cd}	0.061^{e}	0.037^{a}	0.063^{bc}	0.092^{de}	0.109^{g}	0.376^{h}
	RSD	3.185	3.582	3.050	4.117	4.413	5.123	1.648	4.290
Gly	avg	2.145	3.562	5.333	0.881	1.224	1.456	1.211	1.192
	sd	0.054^{de}	0.118^{g}	0.122^{h}	0.073^{a}	0.144^{b}	0.132^{bc}	0.035^{b}	0.117^{ab}
	RSD	2.523	3.321	2.285	8.285	11.784	9.095	2.900	9.785
Galk	avg	1.985	2.356	3.014	1.012	1.109	1.552	1.389	1.483
	sd	0.062^{ef}	0.055^{g}	0.091^{h}	0.024^{a}	0.023^{a}	0.052^{bc}	0.056^{b}	0.079^{bc}
	RSD	3.149	2.328	3.018	2.378	2.048	3.368	4.021	5.300
Gal	avg	2.992	3.145	4.025	0.986	1.537	3.665	5.545	3.572
	sd	0.159^{d}	0.251^{de}	0.179^{fg}	0.044^{a}	0.061^{b}	0.062^{ef}	0.240^{l}	0.151^{ef}
	RSD	5.300	7.984	4.456	4.456	3.984	1.692	4.332	4.228
Rib	avg	1.856	2.563	3.222	0.117	0.853	1.114	0.965	1.314
	sd	0.058^{g}	0.101^{h}	0.131^{l}	0.006^{a}	0.051^{b}	0.048^{cd}	0.038^{bc}	0.064^{def}
	RSD	3.140	3.944	4.056	5.370	6.028	4.272	3.970	4.884
iMAL	avg	0.837	0.968	1.025	0.223	0.573	1.063	1.588	1.616
	sd	0.058^{e}	0.058^{f}	0.073^{f}	0.012^{b}	0.020^{cd}	0.061^{f}	0.019^{i}	0.053^{i}
	RSD	6.970	5.992	7.136	5.504	3.552	3.874	1.224	3.256
iMALT	avg	0.585	0.677	0.985	0.658	0.985	1.112	0.791	0.809
	sd	0.027^{bc}	0.052^{d}	0.042^{g}	0.027^{cd}	0.046^{g}	0.059^{h}	0.004^{f}	0.031^{f}
	RSD	4.622	7.712	4.256	4.038	4.664	5.308	0.558	3.864
Mal	avg	0.351	0.552	0.789	1.221	1.527	2.356	2.022	2.054

	sd	0.003^{a}	0.007^{abc}	0.009^{bc}	0.059^{de}	0.095^{e}	0.141^{f}	0.185^{f}	0.287^{f}
	RSD	0.942	1.242	1.196	4.872	6.228	5.970	9.172	13.996
MALt	avg	0.008	0.009	0.012	1.114	1.983	2.999	4.564	1.355
	sd	0.000^{a}	0.000^{a}	0.000^{a}	0.028^{b}	0.007^{c}	0.005^{e}	0.196^{g}	0.024^{b}
	RSD	3.570	2.370	3.264	2.506	0.354	0.178	4.284	1.766
Mant	avg	1.631	1.896	2.014	5.632	7.662	10.233	9.525	12.455
	sd	0.036^{c}	0.059^{d}	0.043^{d}	0.125^{e}	0.153^{f}	0.016^{h}	0.003^{g}	0.005^{j}
	RSD	2.226	3.112	2.124	2.226	1.992	0.156	0.032	0.044
Xyl	avg	0.856	0.993	1.258	0.568	0.754	0.963	0.973	0.981
	sd	0.000^{c}	0.011^{ef}	0.015^{h}	0.008^{a}	0.015^{b}	0.019^{ef}	0.038^{ef}	0.037^{ef}
	RSD	0.018	1.136	1.228	1.482	1.986	1.986	3.926	3.748
Man	avg	0.072	0.088	0.102	0.885	0.993	1.563	1.327	1.339
	sd	0.004^{a}	0.004^{a}	0.006^{a}	0.036^{b}	0.056^{c}	0.059^{e}	0.031^{d}	0.029^{d}
	RSD	5.178	4.226	5.570	4.024	5.652	3.774	2.332	2.166
Pan	avg	0.011	0.018	0.021	0.425	0.558	0.658	0.625	0.542
	sd	0.000^{a}	0.001^{a}	0.001^{a}	0.011^{b}	0.016^{cd}	0.020^{f}	0.024^{ef}	0.022^{c}
	RSD	2.663	3.826	2.562	2.511	2.845	2.998	3.829	4.056
Ram	avg	1.109	1.526	1.996	0.223	0.356	0.452	0.388	0.345
	sd	0.017^{f}	0.032^{i}	0.030^{j}	0.003^{a}	0.005^{b}	0.006^{c}	0.001^{bc}	0.002^{b}
	RSD	1.559	2.119	1.527	1.183	1.376	1.282	0.298	0.721
Raf	avg	0.856	1.243	2.012	2.141	2.853	3.114	2.415	2.443
	sd	0.031^{a}	0.025^{c}	0.050^{e}	0.043^{f}	0.043^{h}	0.018^{i}	0.050^{g}	0.053^{g}
	RSD	3.663	2.012	2.498	2.002	1.496	0.578	2.056	2.166
Sth	avg	0.617	0.882	1.022	1.025	0.995	0.896	0.569	0.542
	sd	0.013^{d}	0.025^{f}	0.027^{g}	0.008^{g}	0.007^{g}	0.001^{f}	0.015^{c}	0.020^{c}
	RSD	2.163	2.845	2.611	0.762	0.661	0.057	2.668	3.663

Legend: Mean of three replicates ± standard deviation. Different letters in the same row indicate statistically significant difference at $p < 0.05$. RSD (relative standard deviation). Abbreviations: IM - Mongolian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C – subcritical water extraction; Sor - sorbitol; Tre - trehalose; Ara - arabinose ; Glu - glucose; Fru - fructose; Sac - saccharose; Tur - turanose; Gly - glycerol; Galk - galactitol; Gal - galactose; Rib - ribose; iMAL - isomaltose; iMALt isomaltotriosea; Mal - maltose; MALt - maltotriose; Mant - mannitol; Xyl - xylose; Man-mannose; Pan - panose; Ram - ramnose; Raf -raffinose; Sth - stachyose.

Table S2. Free Sugar and sugar alcohol profile of Serbian *I. obliquus* extracts obtained by different green extraction techniques (g/kg).

g/kg		**IS-MW 96% ETOH**	**IS-MW 50% ETOH**	**IS-MW water**	**IS-VAE 96% ETOH**	**IS-VAE 50% ETOH**	**IS-VAE water**	**IS-SWE 200°C**	**IS-SWE 120°C**
Sor	avg	1.213	1.425	1.632	1.698	1.783	2.012	4.897	3.304
	sd	0.014^{a}	0.039^{b}	0.037^{cd}	0.067^{cd}	0.081^{d}	0.086^{e}	0.048^{i}	0.043^{h}
	RSD	1.164	2.704	2.294	3.970	4.536	4.298	0.972	1.304
Tre	avg	0.234	0.266	0.287	0.352	0.405	0.425	0.521	0.676
	sd	0.005^{a}	0.007^{ab}	0.006^{bc}	0.011^{d}	0.017^{e}	0.021^{e}	0.015^{f}	0.027^{h}
	RSD	1.950	2.648	1.926	3.136	4.164	4.824	2.850	3.926
Ara	avg	0.189	0.211	0.223	0.232	0.152	0.352	1.445	1.597
	sd	0.003^{ab}	0.001^{ab}	0.001^{ab}	0.005^{b}	0.003^{a}	0.008^{c}	0.038^{g}	0.053^{hi}
	RSD	1.336	0.410	0.370	1.976	1.706	2.198	2.642	3.304
Glu	avg	24.356	26.985	28.632	18.962	22.245	26.358	66.308	52.131

	sd	0.309^{e}	0.467^{f}	0.416^{g}	0.085^{b}	0.233^{cd}	0.104^{f}	0.593^{l}	0.586^{i}
	RSD	1.270	1.730	1.452	0.448	1.046^{c}	0.396	1.138	0.884
Fru	avg	10.233	12.356	14.653	11.325	13.989	16.856	2.547	2.106
	sd	0.340^{e}	0.494^{g}	0.388^{h}	0.450^{f}	0.718^{h}	0.176^{i}	0.057^{a}	0.048^{a}
	RSD	3.326	3.996	2.650	3.970	5.136	1.046	2.228	2.290
Sac	avg	2.456	3.114	4.325	1.041	2.653	2.986	0.423	0.314
	sd	0.051^{c}	0.064^{d}	0.136^{e}	0.023^{b}	0.070^{cd}	0.059^{d}	0.036^{a}	0.010^{a}
	RSD	2.064	2.046	3.136	2.228	2.652	1.978	2.542	3.114
Tur	avg	1.124	1.325	1.563	1.087	1.986	2.966	1.635	1.828
	sd	0.014^{ab}	0.036^{bc}	0.062^{cd}	0.034^{ab}	0.071^{e}	0.118^{f}	0.028^{cd}	0.056^{de}
	RSD	1.216	2.747	3.956	3.132	3.559	3.976	1.700	3.060
Gly	avg	2.321	2.014	2.584	1.563	1.996	2.147	1.229	1.239
	sd	0.103^{ef}	0.107^{de}	0.104^{f}	0.086^{c}	0.130^{d}	0.147^{de}	0.038^{b}	0.047^{b}
	RSD	4.428	5.306	4.024	5.528	6.534	6.845	3.087	3.830
Galk	avg	1.653	1.896	1.993	1.815	1.963	2.056	1.457	1.482
	sd	0.025^{cd}	0.032^{ef}	0.003^{ef}	0.079^{de}	0.078^{ef}	0.063^{f}	0.063^{b}	0.102^{bc}
	RSD	1.494	1.688	0.143	4.340	3.978	3.087	4.332	6.895
Gal	avg	4.325	3.586	4.856	2.325	3.856	4.658	3.554	4.660
	sd	0.261^{gh}	0.241^{ef}	0.291^{h}	0.080^{c}	0.172^{fg}	0.153^{h}	0.093^{ef}	0.073^{h}
	RSD	6.042	6.730	5.996	3.452	4.456	3.288	2.612	1.556
Rib	avg	0.986	1.124	1.365	1.312	2.523	3.411	1.282	1.459
	sd	0.031^{bc}	0.037^{cde}	0.073^{ef}	0.061d^{ef}	0.163^{h}	0.122^{l}	0.077^{def}	0.077^{f}
	RSD	3.124	3.326	5.332	4.644	6.446	3.584	5.996	5.306
iMAL	avg	0.008	0.007	1.241	0.495	0.459	0.663	1.412	1.580
	sd	0.000^{a}	0.000^{a}	0.059^{g}	0.020^{c}	0.030^{c}	0.036^{d}	0.030^{h}	0.030^{i}
	RSD	3.963	4.726	4.730	4.112	6.506	5.370	2.156	1.896
iMALT	avg	0.009	0.010	0.015	0.563	0.689	0.852	0.786	0.774
	sd	0.000^{a}	0.000^{a}	0.000^{a}	0.001^{b}	0.004^{de}	0.002^{f}	0.004^{f}	0.009^{ef}
	RSD	0.378	1.812	1.136	0.224	0.536	0.242	0.482	1.108
Mal	avg	1.245	1.235	1.523	0.293	0.452	0.896	2.005	1.998
	sd	0.031^{de}	0.038^{de}	0.034^{e}	0.015^{a}	0.031^{ab}	0.066^{cd}	0.187^{f}	0.240^{f}
	RSD	2.470	3.084	2.228	5.102	6.830	7.316	9.306	11.992
MALt	avg	0.005	0.007	0.011	0.008	0.009	0.009	3.554	2.638
	sd	0.000^{a}	0.000^{a}	0.000^{a}	0.000^{a}	0.000^{a}	0.000^{a}	0.182^{f}	0.172^{d}
	RSD	2.650	1.556	1.272	3.970	3.242	3.624	5.126	6.512
Mant	avg	0.896	0.925	0.986	0.852	0.963	1.042	11.539	10.332
	sd	0.020^{ab}	0.023^{ab}	0.021^{ab}	0.005^{a}	0.009^{ab}	0.006^{b}	0.023^{i}	0.018^{h}
	RSD	2.224	2.516	2.170	0.616	0.904	0.596	0.202	0.178
Xyl	avg	1.023	1.234	1.425	0.885	0.996	1.147	0.942	0.947
	sd	0.002^{f}	0.002^{h}	0.047^{i}	0.001^{cd}	0.001^{ef}	0.000^{g}	0.025^{de}	0.031^{de}
	RSD	0.178	0.136	3.316	0.084	0.112	0.024	2.664	3.306
Man	avg	0.031	0.042	0.058	0.029	0.041	0.063	1.323	1.312
	sd	0.001^{a}	0.002^{a}	0.003^{a}	0.001^{a}	0.002^{a}	0.002^{a}	0.039^{d}	0.028^{d}
	RSD	2.066	3.970	5.578	4.130	4.642	3.792	2.985	2.145
Pan	avg	0.010	0.012	0.018	0.008	0.012	0.015	0.563	0.589
	sd	0.000^{a}	0.000^{a}	0.000^{a}	0.000^{a}	0.001^{a}	0.000^{a}	0.021^{cd}	0.025^{de}
	RSD	1.206	2.058	1.761	3.163	4.478	2.011	3.706	4.318
Ram	avg	1.025	1.235	1.412	0.856	0.963	1.023	0.325	0.355
	sd	0.036^{ef}	0.053^{g}	0.064^{h}	0.023^{d}	0.035^{e}	0.027^{ef}	0.001^{b}	0.001^{b}

	RSD	2.721	3.662	2.616	3.518	4.332	4.507	0.316	0.376
Raf	avg	1.325	1.452	1.568	0.752	0.863	0.996	2.426	2.410
	sd	0.022^{c}	0.014^{d}	0.012^{d}	0.006^{a}	0.006^{a}	0.036^{b}	0.053^{g}	0.081^{g}
	RSD	1.663	0.948	0.776	0.762	0.666	3.613	2.166	3.350
Sth	avg	0.563	0.633	0.741	0.114	0.358	0.552	0.556	0.561
	sd	0.007^{c}	0.012^{d}	0.007^{e}	0.003^{a}	0.015^{b}	0.011^{c}	0.000^{c}	0.000^{c}
	RSD	1.163	1.948	1.006	2.329	4.316	1.948	0.089	0.062

Legend: Mean of three replicates ± standard deviation. Different letters in the same row indicate statistically significant difference at $p < 0.05$. RSD (relative standard deviation). Abbreviations: IM - Mongolian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C – subcritical water extraction; Sor - Sorbitol; Tre - trehalose; Ara - arabinose ; Glu - glucose; Fru - fructose; Sac - saccharose; Tur - turanose; Gly - Glycerol; Galk - galactitol; Gal - galactose; Rib - ribose; iMAL - isomaltose; iMALt isomaltotriosea; Mal - maltose; MALt - maltotriose; Mant - mannitol; Xyl - xylose; Man-mannose; Pan - panose; Ram - ramnose; Raf -raffinose; Sth - stachyose.

Table S3. Polyphenol profile of Serbian *I. obliquus* extracts obtained by different green extraction techniques (mg/kg).

mg/kg		**IS-MW 96% ETOH**	**IS-MW 50% ETOH**	**IS-MW water**	**IS-VAE 96% ETOH**	**IS-VAE 50% ETOH**	**IS-VAE water**	**IS-SWE 200°C**	**IS-SWE 120°C**
Protocate-chuic_acid	avg	0.99	0.97	0.83	1.24	1.31	0.98	0.99	1.49
	sd	0.01^{d}	0.01^{d}	0.01^{b}	0.01^{f}	0.02^{g}	0.01^{d}	0.00^{d}	0.00^{h}
	RSD	1.00	0.89	1.11	1.04	1.33	1.21	1.16	1.43
Chlorogenic acid	avg	812.32	897.32	741.27	795.32	845.36	658.63	840.35	697.42
	sd	0.12^{h}	0.16^{l}	0.21^{d}	0.16^{f}	0.20^{k}	0.22^{b}	1.09^{j}	0.93^{c}
	RSD	0.95	1.45	1.55	1.24	1.69	1.46	9.12	6.5
p-Hydroxyben-zoic acid	avg	0.33	0.38	0.15	0.51	0.47	0.39	0.23	0.55
	sd	0.00^{f}	0.00^{g}	0.00^{a}	0.00^{j}	0.00^{i}	0.00^{gh}	0.01^{c}	0.01^{k}
	RSD	0.13	0.04	0.04	0.11	0.14	0.31	1.65	1.03
Catechin	avg	2.80	2.99	2.94	3.49	3.39	2.99	1.80	2.41
	sd	0.02^{d}	0.03^{b}	0.08^{d}	0.04^{e}	0.07^{e}	0.03^{d}	0.05^{b}	0.10^{c}
	RSD	0.88	1.42	2.82	1.11	1.99	1.02	2.86	4.01
p-Hydroxy-phenyla-cetic_acid	avg	0.11	0.14	0.15	0.15	0.13	0.11	0.11	0.12
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	0.70	0.40	0.43	0.87	0.91	0.63	0.66	0.92
Caffeic acid	avg	0.84	0.85	0.78	0.94	0.88	0.76	0.98	2.66
	sd	0.02^{ab}	0.03^{ab}	0.06^{a}	0.04^{abc}	0.04^{ab}	0.03^{a}	0.04^{bc}	0.14^{f}
	RSD	2.05	3.99	2.86	3.73	4.91	4.02	4.08	5.36
Vanillic acid	avg	0.27	0.29	0.42	0.27	0.29	0.24	0.27	0.44
	sd	0.00^{c}	0.00^{e}	0.00^{i}	0.00^{c}	0.00^{e}	0.01^{a}	0.00^{c}	0.00^{j}
	RSD	0.16	0.23	0.15	1.27	1.75	2.28	0.31	0.39
Syringic acid	avg	0.12	0.14	0.23	0.52	0.52	0.50	0.13	0.11
	sd	0.00^{bc}	0.00^{d}	0.00^{e}	0.00^{k}	0.00^{k}	0.00^{j}	0.00^{cd}	0.00^{b}
	RSD	0.47	0.13	0.11	0.37	0.25	0.61	3.79	2.82
Rutin	avg	0.10	0.10	0.08	0.08	0.09	0.08	0.09	0.07
	sd	0.00^{d}	0.00^{d}	0.00^{b}	0.00^{f}	0.01^{c}	0.00^{b}	0.00^{c}	0.00^{a}
	RSD	1.05	1.37	0.97	1.55	2.06	1.48	4.11	5.02
	avg	0.41	0.45	0.59	0.24	0.28	0.23	1.35	1.22

Quercetin 3-O-glucoside	sd	0.01^{d}	0.00^{e}	0.01^{g}	0.01^{a}	0.01^{b}	0.01^{a}	0.00^{i}	0.01^{h}
	RSD	1.38	1.10	0.54	2.23	3.31	3.56	0.46	0.89
p-Coumaric_acid	avg	1.42	1.59	1.10	1.46	1.41	1.40	1.55	3.07
	sd	0.02^{f}	0.04^{gh}	0.02^{c}	0.00^{f}	0.00^{f}	0.00^{ef}	0.01^{g}	0.04^{i}
	RSD	1.49	2.31	2.02	0.65	1.05	0.37	0.86	1.20
Isorhamnetin_3-O-rutinoside	avg	0.12	0.13	0.13	1.12	1.06	0.98	0.11	0.11
	sd	0.00^{a}	0.00^{a}	0.00^{a}	0.01^{i}	0.01^{h}	0.02^{f}	0.00^{a}	0.00^{a}
	RSD	2.43	3.26	2.24	0.82	1.02	1.60	1.00	1.38
Sinapic_acid	avg	0.10	0.10	0.11	0.10	0.11	0.10	0.11	0.12
	sd	0.00^{a}	0.00^{a}	0.00^{ab}	0.00^{a}	0.00^{ab}	0.00^{ab}	0.00^{ab}	0.00^{b}
	RSD	0.52	1.27	1.24	1.19	0.85	0.82	1.97	1.14
Ferulic_acid	avg	0.26	0.27	0.63	0.23	0.29	0.28	0.29	0.47
	sd	0.01^{cd}	0.01^{d}	0.02^{h}	0.00^{bc}	0.00^{d}	0.00^{d}	0.01^{d}	0.01^{g}
	RSD	3.51	4.45	3.36	0.98	1.58	0.85	3.21	2.55
Cinnamic acid	avg	4.33	4.56	5.69	2.65	4.52	1.87	4.33	8.94
	sd	0.13^{c}	0.15^{cd}	0.23^{efg}	0.02^{b}	0.08^{cd}	0.06^{a}	0.24^{c}	0.74^{i}
	RSD	2.97	3.22	3.99	0.64	1.85	3.23	5.62	8.24
Quercetin 3-O-rhamnoside	avg	0.33	0.33	0.14	0.09	0.09	0.08	4.47	4.06
	sd	0.01^{ab}	0.05^{ab}	0.01^{ab}	0.00^{a}	0.00^{a}	0.00^{a}	0.22^{f}	0.26^{e}
	RSD	0.52	2.12	0.97	1.17	2.15	1.86	5.02	6.32
Kaempferol_7-O-glucoside	avg	0.06	0.08	0.06	0.04	0.05	0.04	1.53	1.49
	sd	0.05^{a}	0.07^{a}	0.00^{a}	0.00^{a}	0.00^{a}	0.00^{a}	0.05^{c}	0.06^{c}
	RSD	2.90	3.78	2.77	3.53	4.11	5.05	3.21	5.26
Phlorizin	avg	0.83	0.87	0.54	0.40	0.44	0.39	0.78	0.36
	sd	0.02^{cd}	0.00^{d}	0.00^{b}	0.01^{a}	0.01^{a}	0.00^{a}	0.02^{c}	0.01^{a}
	RSD	2.00	0.30	0.27	1.58	1.33	1.26	2.69	1.77
Eriodictyol	avg	0.06	0.06	0.03	0.23	0.21	0.20	0.03	0.05
	sd	0.00^{b}	0.00^{b}	0.00^{a}	0.01^{d}	0.01^{c}	0.00^{c}	0.00^{a}	0.00^{b}
	RSD	3.25	3.90	3.09	2.46	4.66	2.02	0.65	1.03
Quercetin	avg	1.45	1.65	1.75	1.25	1.46	1.10	0.34	0.49
	sd	0.02^{de}	0.04^{ef}	0.03^{ef}	0.04^{cd}	0.02^{de}	0.03^{c}	0.04^{a}	0.05^{ab}
	RSD	1.12	2.63	4.33	3.26	1.33	2.65	1.95	2.35
Phloretin	avg	0.02	0.04	0.03	0.06	0.07	0.05	0.02	0.04
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	4.93	4.78	2.58	2.29	2.55	1.35	0.58	0.68
Naringenin	avg	0.02	0.03	0.02	0.03	0.04	0.03	0.02	0.02
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	1.01	1.24	0.95	0.76	0.90	0.94	0.45	0.50
Gallic_acid	avg	1.26	1.57	1.00	2.15	2.56	1.87	0.42	0.13
	sd	0.01^{f}	0.01^{h}	0.00^{d}	0.01^{k}	0.01^{m}	0.01^{i}	0.01^{c}	0.01^{a}
	RSD	0.44	0.35	0.33	0.47	0.45	0.62	0.44	0.46

Legend: The results are expressed as mean values of three replicates ± standard deviation. Different letters in the same row indicate statistically significant difference at $p < 0.05$. Abbreviations: IS - Serbian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C.

Table S4. Polyphenol profile of Mongolian *I. obliquus* extracts obtained by different green extraction techniques (mg/kg).

mg/kg		IM-MW 96% ETOH	IM-MW 50% ETOH	IM-MW water	IM-VAE 96% ETOH	IM-VAE 50% ETOH	IM-VAE water	IM-SWE 200°C	IM-SWE 120°C
Protocatechuic acid	avg	1.03	1.26	0.97	0.85	0.91	0.79	0.83	1.25
	sd	0.00^{e}	0.00^{f}	0.00^{d}	0.00^{b}	0.00^{c}	0.00^{a}	0.00^{b}	0.00^{f}
	RSD	0.09	0.24	0.30	0.18	0.23	0.21	0.21	0.36
Chlorogenic acid	avg	825.32	798.63	897.32	742.63	768.96	642.12	741.27	970.56
	sd	0.24^{i}	0.32^{g}	0.21^{l}	0.63^{d}	0.73^{e}	1.28^{a}	1.23^{d}	0.89^{m}
	RSD	1.95	2.56	1.9	4.64	5.58	8.21	9.14	8.66
p-Hydroxybenzoic acid	avg	0.30	0.32	0.28	0.38	0.41	0.29	0.15	0.20
	sd	0.00^{de}	0.00^{ef}	0.01^{d}	0.00^{g}	0.02^{h}	0.01^{d}	0.00^{a}	0.00^{b}
	RSD	0.33	1.14	1.82	1.24	4.65	2.78	0.98	1.13
Catechin	avg	5.99	5.24	4.99	5.76	6.10	4.33	2.94	1.51
	sd	0.06^{hi}	0.07^{g}	0.04^{g}	0.15^{h}	0.12^{i}	0.20^{f}	0.07^{d}	0.05a
	RSD	1.00	1.26	0.90	2.65	2.01	4.59	2.22	3.25
p-Hydroxy-phenylaceticacid	avg	0.15	0.18	0.14	0.13	0.14	0.11	0.15	0.07
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	0.68	1.26	2.01	1.39	2.37	3.11	0.80	0.82
Caffeic acid	avg	4.01	4.26	3.97	2.05	2.53	1.86	2.24	1.13
	sd	0.03^{g}	0.16^{h}	0.09^{g}	0.01^{de}	0.02^{f}	0.02^{d}	0.09^{e}	0.01^{c}
	RSD	0.71	3.77	2.23	0.49	0.92	1.26	4.10	1.33
Vanillic acid	avg	0.33	0.36	0.28	0.25	0.29	0.24	0.42	0.38
	sd	0.00^{f}	0.00^{g}	0.00^{d}	0.00^{b}	0.00^{e}	0.00^{a}	0.00^{i}	0.00^{h}
	RSD	0.38	0.47	0.35	1.02	1.71	1.35	0.28	0.53
Syringic acid	avg	0.39	0.41	0.31	0.36	0.41	0.30	0.23	0.04
	sd	0.00^{h}	0.00^{i}	0.00^{f}	0.00^{g}	0.01^{i}	0.01^{f}	0.01^{e}	0.00^{a}
	RSD	0.62	0.58	0.61	0.58	2.25	1.99	2.85	3.97
Rutin	avg	0.35	0.46	0.30	0.30	0.36	0.28	0.28	0.24
	sd	0.00^{h}	0.00^{j}	0.00^{g}	0.00^{g}	0.00i	0.01^{f}	0.00^{f}	0.00^{e}
	RSD	0.16	0.21	0.18	1.11	1.00	3.13	4.12	3.24
Quercetin 3-O-glu-coside	avg	0.46	0.53	0.34	0.29	0.31	0.24	1.59	1.42
	sd	0.02^{e}	0.01^{f}	0.01^{c}	0.01^{b}	0.01^{bc}	0.01^{a}	0.01^{j}	0.01^{i}
	RSD	3.33	2.46	2.90	3.11	4.03	3.58	0.77	0.76
p-Coumaric_acid	avg	1.24	1.66	0.99	1.43	1.56	1.33	1.10	0.85
	sd	0.03^{d}	0.05^{h}	0.01^{b}	0.02^{f}	0.03^{g}	0.03^{e}	0.01^{c}	0.01^{a}
	RSD	2.28	3.12	1.51	1.75	2.11	2.47	0.82	1.31
Isorhamnetin 3-O-rutinoside	avg	1.01	1.36	0.89	0.39	0.43	0.29	0.13	0.12
	sd	0.00^{g}	0.00^{j}	0.00^{e}	0.01^{c}	0.01^{d}	0.01^{b}	0.00^{a}	0.00^{a}
	RSD	0.23	0.28	0.22	2.65	3.32	2.85	0.89	1.79
Sinapic acid	avg	0.43	0.65	0.16	0.25	0.36	0.20	0.27	0.26
	sd	0.01^{h}	0.01^{i}	0.01^{de}	0.00^{d}	0.01^{f}	0.00^{c}	0.00^{e}	0.00^{de}
	RSD	0.73	0.72	0.81	0.77	3.16	1.79	0.90	1.32
Ferulic acid	avg	0.43	0.67	0.23	0.21	0.35	0.19	0.63	0.64
	sd	0.01^{f}	0.02^{i}	0.01^{bc}	0.01^{ab}	0.02^{e}	0.00^{a}	0.02^{h}	0.02^{h}
	RSD	2.25	3.38	2.85	6.52	5.79	1.33	3.14	3.85
Cinnamic acid	avg	5.21	5.66	4.21	6.33	7.00	5.87	5.69	6.43
	sd	0.12^{de}	0.22^{ef}	0.17^{c}	0.18^{fgh}	0.07^{h}	0.11^{efg}	0.34^{efg}	0.09^{gh}
	RSD	2.24	3.86	4.11	2.89	1.05	1.89	5.99	1.33

Quercetin 3-O-rhamnoside	avg	0.31	0.36	0.20	0.08	0.08	0.07	1.14	1.88
	sd	0.01^{ab}	0.01^{b}	0.00^{ab}	0.00^{a}	0.00^{a}	0.00^{a}	0.05^{c}	0.06^{d}
	RSD	1.87	2.99	1.75	2.00	2.69	3.05	4.77	3.00
Kaempferol_7-O-glucoside	avg	0.09	0.11	0.04	0.01	0.02	0.01	1.33	1.51
	sd	0.00^{a}	0.00^{a}	0.00^{a}	0.00^{a}	0.00^{a}	0.00^{a}	0.04^{b}	0.13^{c}
	RSD	1.79	2.37	1.63	3.12	4.33	3.90	3.00	8.45
Phlorizin	avg	1.64	1.76	1.43	1.40	1.46	1.30	1.54	1.22
	sd	0.02^{h}	0.07^{i}	0.07^{f}	0.02^{f}	0.01^{fg}	0.00^{e}	0.02^{g}	0.00^{e}
	RSD	1.22	3.99	5.25	4.25	1.52	0.85	1.21	1.57
Eriodictyol	avg	0.49	0.52	0.41	0.05	0.05	0.05	0.75	0.65
	sd	0.01^{f}	0.01^{g}	0.00^{e}	0.00^{b}	0.00^{b}	0.00^{b}	0.00^{i}	0.00^{h}
	RSD	1.33	1.65	1.11	2.77	2.65	1.86	0.66	0.65
Quercetin	avg	4.33	6.85	2.33	2.11	2.56	1.85	0.75	0.65
	sd	0.16^{j}	0.27^{k}	0.04^{hi}	0.05^{gh}	0.09^{i}	0.05^{fg}	0.05^{b}	0.06^{b}
	RSD	3.68	4.01	1.89	2.35	3.37	2.86	2.88	3.11
Phloretin	avg	0.07	0.10	0.04	0.07	0.07	0.06	0.07	0.05
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	1.29	2.00	1.13	0.53	0.83	0.87	0.57	1.87
Naringenin	avg	0.04	0.05	0.02	0.05	0.06	0.05	0.02	0.05
	sd	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RSD	0.39	0.40	0.37	0.52	0.62	0.54	0.43	0.65
Gallic_acid	avg	1.14	1.43	1.32	2.33	2.69	2.00	0.34	0.40
	sd	0.01^{e}	0.01^{g}	0.01^{f}	0.02^{l}	0.08^{n}	0.05^{j}	0.00^{b}	0.00^{bc}
	RSD	0.63	0.68	0.83	0.75	2.90	2.29	2.11	2.86

Legend: The results are expressed as mean values of three replicates ± standard deviation. Different letters in the same row indicate statistically significant difference at $p < 0.05$. RSD (relative standard deviation) Abbreviations: IS - Serbian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C.

Table S5. Fatty acid profile of Serbian *I. obliquus* extracts obtained by different green extraction tech-niques mg/100 g.

mg/100 g		**IS-MW 96% ETOH**	**IS-MW 50% ETOH**	**IS-MW water**	**IS-VAE 96% ETOH**	**IS-VAE 50% ETOH**	**IS-VAE water**	**IS-SWE 200°C**	**IS-SWE 120°C**
C4:0 butyric acid	avg	0.030	0.020	0.020	0.060	0.060	0.040	0.090	0.080
	sd	0.000^{b}	0.000^{a}	0.000^{a}	0.002^{e}	0.002^{e}	0.001^{c}	0.005^{g}	0.002^{f}
	RSD	1.178	0.777	1.073	3.166	3.663	2.163	5.166	2.166
C6:0 caproic acid	avg	0.020	0.030	0.010	0.040	0.040	0.020	0.090	0.040
	sd	0.000^{b}	0.000^{c}	0.000^{a}	0.001^{d}	0.000^{d}	0.000^{b}	0.002^{h}	0.001^{d}
	RSD	1.011	1.343	1.663	1.556	1.073	0.997	2.045	3.112
C8:0 caprilic acid	avg	0.050	0.060	0.030	0.110	0.090	0.060	0.160	0.170
	sd	0.001^{b}	0.002^{c}	0.001^{a}	0.003^{f}	0.003^{e}	0.000^{c}	0.001^{i}	0.001^{j}
	RSD	2.090	3.956	2.816	2.311	3.866	0.697	0.674	0.787
C10:0 capric acid	avg	0.230	0.210	0.140	0.320	0.330	0.190	0.580	0.420
	sd	0.012^{bc}	0.013^{bc}	0.007^{a}	0.019^{d}	0.025^{d}	0.015^{b}	0.008^{g}	0.008^{e}
	RSD	5.062	6.064	4.899	5.986	7.456	8.156	1.437	1.842
C11:0 undeca-noic acid	avg	0.110	0.100	0.070	0.160	0.150	0.060	0.650	0.320
	sd	0.001^{b}	0.001^{b}	0.000^{a}	0.006^{c}	0.005^{c}	0.002^{a}	0.015^{i}	0.013^{f}
	RSD	0.803	0.718	0.674	3.665	3.261	3.014	2.279	3.936

C12:0 lauric acid	avg	0.120	0.120	0.040	0.110	0.130	0.060	0.420	0.190
	sd	0.001^{de}	0.001^{de}	0.000^{a}	0.001^{d}	0.001^{e}	0.000^{b}	0.000^{k}	0.000^{g}
	RSD	0.690	1.161	0.638	0.865	1.098	0.732	0.062	0.053
C13:0 tride-canoic acid	avg	0.040	0.030	0.020	0.050	0.050	0.020	0.140	0.110
	sd	0.001^{bc}	0.000^{ab}	0.000^{a}	0.001^{cd}	0.001^{cd}	0.000^{a}	0.005^{h}	0.003^{g}
	RSD	1.479	0.547	1.861	2.027	2.255	0.552	3.725	3.032
C14:0 myristic acid	avg	0.660	0.690	0.230	0.740	0.720	0.330	0.930	0.620
	sd	0.018^{ef}	0.017^{fg}	0.003^{a}	0.010^{h}	0.015^{gh}	0.005^{b}	0.019^{j}	0.015^{e}
	RSD	2.790	2.468	1.416	1.376	2.097	1.651	2.033	2.411
C14:1 myristoleic acid	avg	0.580	0.510	0.320	0.670	0.640	0.330	0.650	0.410
	sd	0.003^{g}	0.016^{f}	0.007^{b}	0.016^{i}	0.018^{h}	0.001^{b}	0.008^{h}	0.007^{c}
	RSD	0.442	3.124	2.044	2.442	2.852	0.304	1.224	1.792
C15:0 pentadeca-noic acid	avg	0.870	0.860	0.330	0.960	1.030	0.420	1.450	1.230
	sd	0.013^{d}	0.020^{d}	0.005^{a}	0.011^{e}	0.017^{g}	0.008^{b}	0.008^{k}	0.010^{j}
	RSD	1.548	2.330	1.484	1.182	1.628	1.990	0.536	0.842
C15:1 pen-tadesenoic acid	avg	0.060	0.050	0.020	0.030	0.020	0.010	0.120	0.080
	sd	0.000^{e}	0.000^{d}	0.000^{b}	0.000^{c}	0.000^{b}	0.000^{a}	0.001^{h}	0.001^{g}
	RSD	0.664	0.712	0.534	1.136	1.198	0.764	1.148	1.570
C16:0 palmitic acid	avg	18.320	16.220	15.660	19.320	18.880	14.320	18.650	16.520
	sd	0.122^{e}	0.149^{d}	0.101^{cd}	0.318^{e}	0.411^{e}	0.228^{b}	0.282^{e}	0.194^{d}
	RSD	0.668	0.916	0.642	1.646	2.178	1.592	1.512	1.176
C16:1 pal-mitoleic acid	avg	0.670	0.630	0.230	0.750	0.740	0.330	0.560	0.420
	sd	0.018^{j}	0.011^{i}	0.001^{a}	0.020^{k}	0.028^{k}	0.001^{d}	0.007^{h}	0.005^{e}
	RSD	2.672	1.802	0.504	2.712	3.770	0.266	1.316	1.304
C17:0 margaric acid	avg	0.480	0.420	0.210	0.560	0.590	0.220	0.520	0.420
	sd	0.004^{e}	0.005^{d}	0.004^{a}	0.010^{g}	0.012^{h}	0.004^{a}	0.010^{f}	0.006^{d}
	RSD	0.778	1.306	1.972	1.770	2.070	1.812	1.882	1.436
C17:1 hep-tadesenoic acid	avg	0.160	0.150	0.040	0.110	0.110	0.030	0.210	0.110
	sd	0.003^{h}	0.004^{g}	0.001^{c}	0.003^{d}	0.004^{d}	0.001^{b}	0.001^{j}	0.000^{d}
	RSD	1.856	2.957	2.152	3.012	3.995	3.442	0.289	0.258
C18:0 stearic acid	avg	6.580	6.960	3.120	7.560	7.990	4.110	5.630	4.250
	sd	0.199^{ef}	0.301^{efg}	0.094^{b}	0.260^{hi}	0.380^{i}	0.205^{c}	0.111^{d}	0.086^{c}
	RSD	3.018	4.325	2.998	3.441	4.756	4.998	1.963	2.022
C18:1 trans-oleic acid	avg	0.230	0.220	0.100	0.190	0.210	0.110	0.230	0.110
	sd	0.003^{h}	0.003^{gh}	0.001^{bc}	0.010^{f}	0.009^{g}	0.002^{c}	0.005^{h}	0.004^{c}
	RSD	1.325	1.503	1.145	5.112	4.245	2.268	2.145	3.689
C18:1 cis-oleic acid	avg	52.320	55.630	12.360	38.250	34.520	14.220	25.630	12.360
	sd	0.583^{h}	0.791^{i}	0.134^{a}	0.989^{ef}	1.495^{d}	0.315^{a}	0.425^{c}	0.122^{a}
	RSD	1.114	1.423	1.084	2.585	4.332	2.214	1.658	0.986
C18:2 trans-lino-leic acid	avg	0.070	0.070	0.020	0.080	0.060	0.040	0.060	0.050
	sd	0.004^{f}	0.003^{f}	0.000^{b}	0.002^{g}	0.002^{e}	0.000^{c}	0.001^{e}	0.001^{d}
	RSD	5.623	4.112	1.542	2.774	3.235	1.112	2.336	2.114
C18:2 cis-linoleic acid	avg	0.290	0.280	0.150	0.190	0.190	0.090	0.150	0.110
	sd	0.004^{ab}	0.003^{ab}	0.001^{ab}	0.002^{ab}	0.001^{ab}	0.002^{a}	0.001^{ab}	0.001^{a}
	RSD	1.021	2.356	2.985	2.114	1.985	1.665	2.883	2.898
C18:3 linolenic acid	avg	0.240	0.230	0.120	0.180	0.190	0.080	0.160	0.110
	sd	0.006^{g}	0.005^{g}	0.004^{d}	0.006^{f}	0.009^{f}	0.005^{bc}	0.008^{e}	0.007^{d}
	RSD	2.412	2.125	2.983	3.224	4.863	5.635	4.863	6.042
C18:3 gamma	avg	1.040	1.090	0.520	0.650	0.680	0.230	0.260	0.150

	sd	0.021^{hi}	0.036^{i}	0.022^{e}	0.013^{f}	0.024^{f}	0.010^{c}	0.008^{cd}	0.008^{b}
	RSD	2.035	3.325	4.325	1.996	3.487	4.235	3.025	5.023
C20:0 arachidic acid	avg	0.350	0.380	0.210	0.540	0.560	0.240	0.230	0.150
	sd	0.008^{h}	0.013^{h}	0.003^{f}	0.022^{i}	0.035^{i}	0.011^{fg}	0.004^{fg}	0.005^{de}
	RSD	2.252	3.356	1.332	4.021	6.258	4.563	1.853	3.124
C20:1 eicosenoic acid	avg	0.170	0.190	0.140	0.160	0.120	0.090	0.230	0.110
	sd	0.003^{e}	0.010^{f}	0.005^{d}	0.007^{e}	0.003^{c}	0.002^{b}	0.008^{g}	0.002^{c}
	RSD	1.896	5.423	3.321	4.658	2.332	1.996	3.562	2.112
C20:2 eicosadienoic acid	avg	0.120	0.150	0.110	0.210	0.150	0.070	0.150	0.120
	sd	0.004^{c}	0.006^{d}	0.004^{c}	0.004^{e}	0.003^{d}	0.001^{b}	0.003^{d}	0.003^{c}
	RSD	3.658	4.321	3.323	2.142	1.785	2.036	2.065	2.498
C21:0 heneicosanoic acid	avg	0.130	0.110	0.070	0.120	0.110	0.050	0.120	0.090
	sd	0.003^{g}	0.003^{e}	0.002^{c}	0.000^{f}	0.001^{e}	0.000^{b}	0.000^{f}	0.000^{d}
	RSD	2.256	2.853	2.996	0.285	0.998	0.743	0.233	0.284
C20:3 *n* = 3 cis-11,14,17-eicosatrienoic acid	avg	0.110	0.090	0.030	0.130	0.080	0.020	0.110	0.060
	sd	0.000^{g}	0.000^{f}	0.000^{b}	0.001^{h}	0.001^{e}	0.000^{a}	0.000^{g}	0.000^{c}
	RSD	0.314	0.398	0.521	0.511	0.756	0.488	0.156	0.175
C20:4 arachidonic acid	avg	0.180	0.150	0.080	0.090	0.070	0.040	0.150	0.080
	sd	0.001^{i}	0.000^{h}	0.000^{e}	0.000^{f}	0.000^{d}	0.000^{b}	0.000^{h}	0.006^{e}
	RSD	0.285	0.255	0.506	0.489	0.110	0.075	0.296	7.226
C20:3 *n* = 6 cis-8,11,14-eicosatrienoic acid	avg	0.260	0.210	0.040	0.050	0.030	0.010	0.130	0.090
	sd	0.001^{l}	0.001^{k}	0.000^{d}	0.000^{e}	0.000^{c}	0.000^{a}	0.001^{j}	0.000^{h}
	RSD	0.511	0.281	0.331	0.268	0.235	0.356	0.489	0.165
C22:0 behenic acid	avg	0.430	0.450	0.210	0.390	0.430	0.250	0.530	0.390
	sd	0.014^{g}	0.018^{h}	0.008^{b}	0.001^{f}	0.001^{g}	0.000^{c}	0.003^{j}	0.001^{f}
	RSD	3.336	3.983	4.014	0.189	0.203	0.188	0.523	0.195
C20:5 eicosapentaenoic acid	avg	0.230	0.210	0.110	0.320	0.240	0.150	0.180	0.110
	sd	0.001^{i}	0.000^{g}	0.000^{b}	0.001^{k}	0.001^{j}	0.001^{d}	0.001^{e}	0.001^{b}
	RSD	0.245	0.223	0.325	0.332	0.425	0.665	0.283	1.245
C22:1 erucic acid	avg	0.190	0.170	0.100	0.310	0.250	0.190	0.160	0.090
	sd	0.002^{j}	0.003^{i}	0.001^{d}	0.003^{l}	0.006^{k}	0.004^{j}	0.002^{h}	0.001^{c}
	RSD	1.104	1.548	1.442	1.124	2.326	1.886	1.083	1.653
C22:2 docosadienoic acid	avg	0.530	0.480	0.360	0.480	0.190	0.330	0.250	0.140
	sd	0.005^{j}	0.010^{i}	0.004^{h}	0.008^{i}	0.005^{c}	0.010^{g}	0.000^{e}	0.000^{b}
	RSD	1.021	2.032	0.996	1.563	2.441	2.896	0.189	0.252
C23:0 tricosanoic acid	avg	0.560	0.510	0.310	0.560	0.470	0.350	0.360	0.250
	sd	0.013^{l}	0.004^{k}	0.002^{e}	0.006^{l}	0.005^{j}	0.007^{gh}	0.006^{h}	0.008^{bc}
	RSD	2.331	0.752	0.552	1.025	0.998	1.885	1.589	3.057
C24:0 lignoseric acid	avg	0.420	0.440	0.210	0.590	0.510	0.330	0.420	0.360
	sd	0.002^{g}	0.002^{h}	0.001^{a}	0.002^{j}	0.002^{i}	0.001^{d}	0.008^{g}	0.004^{f}
	RSD	0.452	0.568	0.402	0.352	0.458	0.336	1.986	1.112
C22:6 docosahexaenoic acid	avg	0.510	0.530	0.390	0.610	0.580	0.430	0.590	0.410
	sd	0.005^{g}	0.004^{h}	0.003^{d}	0.004^{k}	0.006^{j}	0.004^{f}	0.007^{j}	0.004^{e}
	RSD	0.989	0.711	0.893	0.689	0.998	1.001	1.114	1.012

Legend: The results are expressed as mean values of three replicates ± standard deviation. RSD (relative standard deviation). Different letters in the same row indicate statistically significant difference at $p < 0.05$. Abbreviations: IS - Serbian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C.

Table S6. Fatty acid profile of Mongolian *I. obliquus* extracts obtained by different green extraction techniques mg/100 g.

mg/100 g		**IM-MW 96%ETOH**	**IM-MW 50% ETOH**	**IM-MW water**	**IM-VAE 96% ETOH**	**IM-VAE 50% ETOH**	**IM-VAE water**	**IM-SWE 200°C**	**IM-SWE 120°C**
C4:0 butyric acid	avg	0.090	0.110	0.060	0.050	0.050	0.030	0.110	0.100
	sd	0.002^{g}	0.001^{i}	0.001^{e}	0.001^{d}	0.002^{d}	0.001^{b}	0.001^{i}	0.001^{h}
	RSD	1.999	0.666	0.998	2.845	3.162	3.668	1.239	0.968
C6:0 caproic acid	avg	0.080	0.070	0.050	0.090	0.080	0.040	0.110	0.080
	sd	0.001^{g}	0.001^{f}	0.001^{e}	0.001^{h}	0.002^{g}	0.001^{d}	0.002^{i}	0.001^{g}
	RSD	1.345	1.228	1.493	1.371	1.896	2.331	1.852	1.452
C8:0 caprilic acid	avg	0.150	0.130	0.080	0.130	0.110	0.080	0.150	0.180
	sd	0.001^{h}	0.004^{g}	0.001^{d}	0.006^{g}	0.005^{f}	0.004^{d}	0.001^{h}	0.006^{k}
	RSD	0.920	3.194	0.948	4.899	4.999	5.426	0.568	3.326
C10:0 capric acid	avg	0.480	0.490	0.240	0.330	0.360	0.140	0.630	0.520
	sd	0.019^{f}	0.023^{f}	0.007^{c}	0.001^{d}	0.002^{d}	0.001^{a}	0.009^{h}	0.012^{f}
	RSD	3.936	4.778	2.965	0.366	0.457	0.386	1.395	2.281
C11:0 undeca-noic acid	avg	0.210	0.230	0.110	0.250	0.210	0.110	0.530	0.410
	sd	0.006^{d}	0.003^{de}	0.002^{b}	0.004^{e}	0.006^{d}	0.002^{b}	0.012^{h}	0.005^{g}
	RSD	2.816	1.423	1.950	1.486	2.708	2.185	2.255	1.299
C12:0 lauric acid	avg	0.180	0.170	0.070	0.230	0.220	0.080	0.330	0.210
	sd	0.008^{fg}	0.009^{f}	0.003^{bc}	0.007^{i}	0.006^{hi}	0.000^{c}	0.015^{j}	0.011^{h}
	RSD	4.432	5.312	4.278	2.979	2.697	0.044	4.568	5.128
C13:0 tride-canoic acid	avg	0.060	0.070	0.030	0.080	0.080	0.400	0.130	0.110
	sd	0.000^{de}	0.002^{ef}	0.001^{ab}	0.002^{f}	0.003^{f}	0.013^{i}	0.002^{h}	0.001^{g}
	RSD	0.519	2.258	3.056	3.035	3.580	3.266	1.320	1.242
C14:0 myristic acid	avg	0.810	0.830	0.320	0.720	0.750	0.410	0.840	0.520
	sd	0.021^{j}	0.012^{j}	0.006^{b}	0.012^{gh}	0.012^{h}	0.008^{c}	0.022^{j}	0.016^{d}
	RSD	2.556	1.492	1.775	1.623	1.542	1.985	2.568	3.124
C14:1 myristoleic acid	avg	0.480	0.440	0.210	0.520	0.530	0.220	0.670	0.320
	sd	0.007^{e}	0.017^{d}	0.003^{a}	0.007^{f}	0.008^{f}	0.004^{a}	0.008^{i}	0.003^{b}
	RSD	1.522	3.790	1.316	1.424	1.578	1.624	1.266	0.796
C15:0 pentadeca-noic acid	avg	0.990	1.010	0.330	1.150	1.080	0.520	1.660	1.110
	sd	0.012^{ef}	0.016^{fg}	0.004^{a}	0.005^{i}	0.007^{h}	0.003^{c}	0.008^{l}	0.012^{h}
	RSD	1.226	1.622	1.104	0.464	0.622	0.596	0.470	1.072
C15:1 pen-tadesenoic acid	avg	0.080	0.070	0.020	0.090	0.060	0.020	0.140	0.090
	sd	0.001^{g}	0.001^{f}	0.000^{b}	0.001^{h}	0.000^{e}	0.000^{b}	0.001^{j}	0.001^{h}
	RSD	0.756	1.316	1.792	1.224	0.650	0.258	1.046	0.904
C16:0 palmitic acid	avg	14.630	13.890	10.320	15.630	16.010	10.630	21.350	18.630
	sd	0.231^{bc}	0.293^{b}	0.153^{a}	0.059^{cd}	0.052^{d}	0.139^{a}	0.800^{e}	0.869^{e}
	RSD	1.578	2.112	1.482	0.378	0.326	1.306	3.748	4.664
C16:1 pal-mitoleic acid	avg	0.530	0.490	0.210	0.280	0.290	0.180	0.630	0.510
	sd	0.001^{gh}	0.007^{f}	0.004^{ab}	0.002^{c}	0.003^{c}	0.002^{a}	0.012^{i}	0.010^{fg}
	RSD	0.272	1.430	1.748	0.824	1.046	1.094	1.926	1.906
C17:0 margaric acid	avg	0.620	0.650	0.250	0.710	0.760	0.320	0.680	0.520
	sd	0.004^{i}	0.005^{j}	0.002^{b}	0.005^{l}	0.010^{m}	0.007^{c}	0.009^{k}	0.010^{f}
	RSD	0.712	0.698	0.846	0.730	1.296	2.110	1.308	1.982
	avg	0.160	0.140	0.030	0.110	0.110	0.020	0.190	0.130

C17:1 heptadesenoic acid	sd	0.006^{h}	0.002^{f}	0.001^{b}	0.003^{d}	0.003^{d}	0.001^{a}	0.000^{i}	0.003^{e}
	RSD	3.562	1.553	2.856	2.994	2.452	3.325	0.241	2.141
C18:0 stearic acid	avg	6.420	6.56	3.880	7.010	7.230	4.110	2.530	2.110
	sd	0.227^{e}	0.156^{ef}	0.121^{c}	0.130^{fgh}	0.161^{gh}	0.084^{c}	0.045^{a}	0.068^{a}
	RSD	3.542	2.371	3.114	1.852	2.231	2.035	1.785	3.221
C18:1 trans-oleic acid	avg	0.180	0.190	0.090	0.150	0.130	0.040	0.250	0.160
	sd	0.004^{f}	0.004^{f}	0.003^{b}	0.003^{e}	0.002^{d}	0.000^{a}	0.005^{i}	0.002^{e}
	RSD	2.310	2.289	2.986	2.199	1.422	0.785	2.002	1.458
C18:1 cis-oleic acid	avg	48.630	49.210	21.330	36.520	39.780	14.330	35.850	12.230
	sd	1.408^{g}	1.636^{g}	0.523^{b}	1.676^{de}	1.295^{f}	0.159^{a}	0.881^{de}	0.381^{a}
	RSD	2.896	3.325	2.452	4.589	3.256	1.112	2.458	3.114
C18:2 trans-linoleic acid	avg	0.070	0.060	0.020	0.080	0.040	0.020	0.010	0.010
	sd	0.001^{f}	0.001^{e}	0.000^{b}	0.002^{g}	0.001^{c}	0.000^{b}	0.000^{a}	0.000^{a}
	RSD	1.085	0.989	1.254	2.117	3.256	1.985	1.236	1.023
C18:2 cis-linoleic acid	avg	1.109	1.526	1.996	0.223	0.356	0.452	0.388	0.345
	sd	0.210^{c}	0.230^{d}	0.090^{e}	0.150^{ab}	0.160^{ab}	0.080^{b}	0.100^{ab}	0.090^{ab}
	RSD	2.852	2.481	3.256	2.856	2.542	3.952	3.256	2.921
C18:3 linolenic acid	avg	0.180	0.160	0.080	0.090	0.080	0.020	0.120	0.070
	sd	0.009^{f}	0.008^{e}	0.005^{bc}	0.002^{c}	0.004^{bc}	0.001^{a}	0.011^{d}	0.006^{b}
	RSD	5.114	5.032	6.521	2.021	5.003	7.065	8.768	9.032
C18:3 gamma	avg	0.990	0.850	0.140	0.120	0.150	0.050	0.310	0.140
	sd	0.032^{h}	0.009^{g}	0.003^{b}	0.002^{b}	0.002^{b}	0.002^{a}	0.014^{d}	0.006^{b}
	RSD	3.225	1.023	1.856	1.562	1.335	3.253	4.633	4.589
C20:0 arachidic acid	avg	0.150	0.160	0.080	0.130	0.110	0.060	0.260	0.120
	sd	0.003^{de}	0.003^{e}	0.001^{ab}	0.008^{cde}	0.003^{bc}	0.002^{a}	0.004^{g}	0.004^{cd}
	RSD	2.325	1.856	1.221	6.214	2.956	3.889	1.623	3.224
C20:1 eicosenoic acid	avg	0.110	0.120	0.040	0.080	0.080	0.050	0.230	0.140
	sd	0.003^{c}	0.004^{c}	0.001^{a}	0.002^{b}	0.003^{b}	0.002^{a}	0.005^{g}	0.003^{d}
	RSD	2.358	3.124	2.258	2.998	3.385	3.118	2.325	1.996
C20:2 eicosadienoic acid	avg	0.080	0.070	0.050	0.110	0.120	0.080	0.180	0.140
	sd	0.001^{b}	0.001^{b}	0.001^{a}	0.004^{c}	0.004^{c}	0.002^{b}	0.004^{e}	0.005^{d}
	RSD	1.089	0.996	2.325	3.326	2.998	2.323	2.331	3.332
C21:0 heneicosanoic acid	avg	0.130	0.150	0.070	0.090	0.090	0.030	0.140	0.090
	sd	0.001^{g}	0.001^{i}	0.001^{c}	0.000^{d}	0.001^{d}	0.000^{a}	0.000^{h}	0.000^{d}
	RSD	0.712	0.963	0.822	0.426	0.689	0.411	0.314	0.114
C20:3 *n* = 3 cis-11,14,17-eicosatrienoic acid	avg	0.140	0.140	0.080	0.060	0.070	0.020	0.150	0.020
	sd	0.001^{i}	0.001^{i}	0.000^{e}	0.000^{c}	0.000^{d}	0.000^{a}	0.000^{j}	0.000^{a}
	RSD	0.433	0.568	0.612	0.441	0.562	0.411	0.163	0.085
C20:4 arachidonic acid	avg	0.060	0.040	0.030	0.070	0.070	0.030	0.130	0.090
	sd	0.000^{c}	0.000^{b}	0.000^{a}	0.000^{d}	0.000^{d}	0.000^{a}	0.005^{g}	0.000^{f}
	RSD	0.163	0.141	0.285	0.293	0.288	0.355	3.526	0.523
C20:3 *n* = 6 cis-8,11,14-eicosatrienoic acid	avg	0.060	0.060	0.010	0.050	0.050	0.020	0.110	0.070
	sd	0.000^{f}	0.000^{f}	0.000^{a}	0.000^{e}	0.000^{e}	0.000^{b}	0.000^{i}	0.000^{g}
	RSD	0.204	0.432	0.568	0.399	0.523	0.632	0.174	0.235
C22:0 behenic acid	avg	0.360	0.900	0.150	0.320	0.360	0.210	0.480	0.210
	sd	0.001^{f}	0.005^{k}	0.001^{a}	0.003^{d}	0.004^{f}	0.001^{b}	0.001^{i}	0.001^{b}
	RSD	0.332	0.568	0.865	0.998	1.024	0.487	0.206	0.336
C20:5 eicosapentaenoic acid	avg	0.190	0.140	0.080	0.230	0.220	0.110	0.220	0.150
	sd	0.001^{f}	0.000^{c}	0.000^{a}	0.001^{i}	0.001^{h}	0.000^{b}	0.006^{h}	0.003^{d}

	RSD	0.542	0.213	0.135	0.356	0.331	0.368	2.896	2.114
C22:1 erucic acid	avg	0.150	0.120	0.070	0.100	0.090	0.060	0.160	0.110
	sd	0.001^{g}	0.002^{f}	0.001^{b}	0.001^{d}	0.001^{c}	0.001^{a}	0.002^{h}	0.002^{e}
	RSD	0.993	1.856	0.874	1.125	1.563	1.983	1.112	1.941
C22:2 docosadienoic acid	avg	0.250	0.210	0.180	0.190	0.150	0.110	0.290	0.210
	sd	0.001^{e}	0.002^{d}	0.001^{c}	0.001^{c}	0.002^{b}	0.001^{a}	0.001^{f}	0.002^{d}
	RSD	0.452	0.883	0.398	0.623	1.124	0.853	0.177	1.022
C23:0 tricosanoic acid	avg	0.290	0.260	0.230	0.420	0.340	0.260	0.330	0.240
	sd	0.005^{d}	0.003^{c}	0.005^{a}	0.005^{i}	0.002^{fg}	0.001^{c}	0.004^{f}	0.001^{ab}
	RSD	1.632	1.256	2.325	1.268	0.562	0.421	1.121	0.401
C24:0 lignoseric acid	avg	0.230	0.250	0.210	0.350	0.360	0.210	0.510	0.420
	sd	0.002^{b}	0.003^{c}	0.002^{a}	0.001^{e}	0.002^{f}	0.003^{a}	0.001^{i}	0.001^{g}
	RSD	0.993	1.256	0.945	0.423	0.554	1.325	0.258	0.347
C22:6 docosahexaenoic acid	avg	0.510	0.560	0.330	0.370	0.390	0.260	0.630	0.510
	sd	0.005^{g}	0.003^{i}	0.002^{b}	0.003^{c}	0.003^{d}	0.002^{a}	0.004^{l}	0.003^{g}
	RSD	0.997	0.604	0.689	0.699	0.741	0.883	0.652	0.526

Legend: The results are expressed as mean values of three replicates ± standard deviation. RSD (relative standard deviation). Different letters in the same row indicate statistically significant difference at $p < 0.05$. Abbreviations: IS - Serbian Chaga, MW 96% EtOH, 50% EtOH, H_2O - microwave-assisted extraction, VAE 96% EtOH, 50% EtOH, H_2O - ultrasound-assisted extraction, SWE 200 °C, 120 °C.