

**Table 1:** Permutational analysis of variance (PERMANOVA) of a)  $T_{2WL}$ , b)  $T_{2peak}$ , c)  $\tau_{YP}$ , d)  $\tau_{max}$  and e) SI as function of the polymer type, soil extract and drying-rewetting cycle (cycle) of the IE. Significant effects and interactions are shown marked in bold, respectively.

a		$T_{2WL}$				b		$T_{2peak}$			
	Df	Sum Sq	R2	F value	Pr(>F)		Df	Sum Sq	R2	F value	Pr(>F)
Polymer type	1	9.33	0.07	162.18	<b>0.001</b>	Polymer type	1	2.04	0.016	2.70	<b>0.001</b>
Soil extract	3	104.98	0.81	608.50	<b>0.001</b>	Soil extract	3	4.61	0.034	2.03	0.155
cycle	3	2.05	0.02	11.87	<b>0.001</b>	cycle	3	6.56	0.05	2.89	<b>0.008</b>
Polymer type: soil extract	3	4.80	0.04	27.82	<b>0.001</b>	Polymer type: soil extract	3	4.52	0.04	2.00	0.081
Polymer type: cycle	3	0.32	0.00	1.86	0.153	Polymer type: cycle	3	6.55	0.05	2.89	<b>0.020</b>
Soil extract:cycle	6	0.86	0.01	2.49	<b>0.026</b>	Soil extract:cycle	6	13.09	0.10	2.89	<b>0.011</b>
Polymer type: soil extract:cycle	6	0.69	0.01	1.99	0.083	Polymer type: soil extract:cycle	6	13.09	0.10	2.89	<b>0.018</b>
Residuals	104	5.98	0.05			Residuals	104	78.55	0.61		
c		$T_{YP}$				d		$\tau_{max}$			
	Df	Sum Sq	R2	F value	Pr(>F)		Df	Sum Sq	R2	F value	Pr(>F)
Polymer type	1	50.38	0.39	100.42	<b>0.001</b>	Polymer type	1	55.59	0.43	175.35	<b>0.001</b>
Soil extract	3	15.84	0.12	10.53	<b>0.001</b>	Soil extract	3	21.50	0.02	22.61	<b>0.001</b>
cycle	3	1.55	0.01	1.03	0.398	cycle	3	2.05	0.02	2.15	0.092
Polymer type: soil extract	3	1.11	0.01	0.74	0.525	Polymer type: soil extract	3	1.89	0.01	1.99	0.118
Polymer type: cycle	3	2.01	0.02	1.34	0.276	Polymer type: cycle	3	10.71	0.08	11.26	<b>0.001</b>
Soil extract:cycle	6	2.10	0.02	0.70	0.646	Soil extract:cycle	6	0.39	0.00	0.20	0.972
Polymer type: soil extract:cycle	6	3.82	0.03	1.27	0.264	Polymer type: soil extract:cycle	6	3.90	0.03	2.05	0.075
Residuals	104	52.18	0.40			Residuals	104	32.97	0.26		
e		$SI$									
	Df	Sum Sq	R2	F value	Pr(>F)						
Polymer type	1	36.97	0.29	1271.29	<b>0.001</b>						
Soil extract	3	41.19	0.32	472.24	<b>0.001</b>						
cycle	3	11.71	0.09	134.27	<b>0.001</b>						
Polymer type: soil extract	3	18.22	0.14	208.91	<b>0.001</b>						
Polymer type: cycle	3	9.45	0.07	108.34	<b>0.001</b>						
Soil extract:cycle	6	7.40	0.06	42.41	<b>0.011</b>						
Polymer type: soil extract:cycle	6	1.03	0.01	5.92	<b>0.001</b>						
Residuals	104	3.02	0.02								