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SUPPLEMENTARY MATERIAL TO

Adsorption-desorption behaviour of clomazone in Planosol and Vertisol agricultural soils

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Linear and multiple regression analyses between selected soil properties and the distribution coefficients ($K_{d(ads)}$ and $K_{OC(ads)}$) as well as the Freundlich parameters ($K_{f\,(ads)}$ and $1/n_{\,(ads)}$) were conducted (Tables S-I and S-II) based on data from this study and previously published source[9] using the Data Analysis Tool Pak in Microsoft Excel 2016. Comparative overview of the main sorption parameters obtained in this study and previously published data was presented in Table S-III.

TABLE S-I. Linear regression analysis between clomazone adsorption data and selected soil properties

	$K_{d\,(ads)}$	$K_{f\,(ads)}$	$1/n_{(ads)}$	$K_{OC\,(ads)}$
OC	0.860 (0.140)[a]	0.854 (0.146)	0.927 (0.073)	0.004 (0.996)
Clay	0.859 (0.141)	0.871 (0.129)	0.667 (0.333)	0.741 (0.259)
pH	0.467 (0.533)	0.473 (0.527)	0.291 (0.709)	0.997[b] (**0.003**)
Silt	0.676 (0.324)	0.663 (0.337)	0.709 (0.291)	0.777 (0.223)
Sand	0.880 (0.120)	0.882 (0.118)	0.771 (0.229)	0.852 (0.148)

[a] Values in parentheses are p values of the correlations; [b] Significance at the 0.05 level.

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TABLE S-II. Multiple linear regression results for clomazone adsorption

Regression equation	r[a]	p[b]
$K_d = 2.2041 \times OC - 0.3860 \times pH + 2.6462$	0.997	0.070
$K_d = 1.3736 \times OC - 0.0417 \times sand + 2.7380$	0.997	0.080
$K_d = 0.6326 \times pH - 0.1105 \times sand + 2.9187$	0.995	0.095
$K_{f\,(ads)} = 1.6339 \times OC - 0.2920 \times pH + 2.6196$	0.995	0.099
$1/n_{(ads)} = 0.0619 \times OC + 0.0019 \times silt + 0.8840$	0.999	0.053
$K_{OC\,(ads)} = 4.3364 \times OC - 27.5998 \times pH + 402.6336$	0.998	0.067
$K_{OC\,(ads)} = -55.2564 \times OC - 2.9965 \times sand + 409.9218$	0.998	**0.049**[c]
$K_{OC\,(ads)} = 0.0066 \times clay - 27.5073 \times pH + 408.5849$	0.997	0.083
$K_{OC\,(ads)} = -25.1549 \times pH + 0.6342 \times silt + 371.8211$	1.000	**0.004**[c]
$K_{OC\,(ads)} = -25.5141 \times pH - 0.2265 \times sand + 402.9237$	0.998	0.066

[a] Multiple correlation coefficient; [b] Significance level; [c] Significance at the 0.05 level.

TABLE S-III. Comparative overview of the main sorption parameters obtained in this study and previosly published data

$K_{d\,(ads)}$ / $dm^3\ kg^{-1}$	$K_{OC\,(ads)}$ / $dm^3\ kg^{-1}$	$K_{f\,(ads)}$ / $mg^{(n-1)/n}\ dm^{3/n}\ kg^{-1}$	$n_{(ads)}$	$K_{f\,(des)}$ / $mg^{(n-1)/n}\ dm^{3/n}\ kg^{-1}$	$n_{(des)}$	D / %	Data source
3.41-4.59	266.40-240.30	3.14-4.05	0.93-0.96	3.15-21.23	3.57-5.26	28.48-33.32	This study
2.30-11.0	129.00-887.00	5.06-9.20	0.83-0.89		0.05-0.24		Ref[10]
	354.00-767.00	6.10-11.25	1.25-1.49				Ref[14]
2.34-5.23	90.00-201.15	3.29	1.25				Ref[17]
		1.11	0.82				Ref[16]
		2.82-3.74	0.74-0.79			32.20-43.70	Ref[19]
0.47-5.30	60.00-573.00		1.02-1.10				Ref[37]
0.92-1.12	29.58-31.20						Ref[11]
2.14-3.83	186.09-198.45	2.21-3.43	0.93-1.00	2.34-18.95	3.70-5.26	29.12-35.58	Ref[9]
3.00-5.58	201.55-313.28						Ref[18]
1.27-1.69	14.51-17.89		0.84-0.95			37.60-50.00	Ref[12]
		1.33-18.44					Ref[8]
1.16-1.66	12.43-16.44		0.83-0.88			32.70-48.60	Ref[15]
1.24-1.85	8.21-18.14		0.77-0.95				Ref[20]
		1.49-2.97	2.47-3.69				Ref[13]
0.47	34.19	0.77	1.37				Ref[21]
0.41-6.40	75.09-462.43						Ref[38]
1.14	88.00	1.14	1.00	2.04	0.53		Ref[23]

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