Environ. Chem. **2012**
doi:10.1071/EN11101_AC

Supplementary material

Gel–water partitioning of soil humics in DGT of their metal complexes

Pascal L.R. van der Veeken[A] *and Herman P. van Leeuwen*[A,B]

[A]Laboratory of Physical Chemistry and Colloid Science, Wageningen University, Dreijenplein 6, 6703HB Wageningen, the Netherlands.

[B]Corresponding author. Email: herman.vanleeuwen@wur.nl

Table S1. NICA–Donnan parameters used in equilibrium calculations

p is the width of the distribution; Q_{max} is the binding site density; n_H is the non-ideality parameter for protons. For details see Benedetti et al.[1]

	SRFA Specific parameters[1]		FSHA Specific parameters[2]	
	Carboxylic	Phenolic	Carboxylic	Phenolic
Q_{max} (mol kg^{-1})	5.55	2.50	2.30	3.92
p	0.65	0.49	0.68	0.28
log K_H	2.56	7.50	2.21	8.98
n_H	0.68	0.81	0.78	0.61
log K_{Cd}	–3.17	–	–0.35	1.94
n_{Cd}	0.46	–	0.77	0.57

References

[1] M. F. Benedetti, W. H. Van Riemsdijk, L. K. Koopal, D. G. Kinniburgh, D. C. Gooddy, C. J. Milne, Metal ion binding by natural organic matter: from the model to the field. *Geochim. Cosmochim. Acta* **1996**, *60*, 2503. doi:10.1016/0016-7037(96)00113-5

[2] E. J. J. Kalis, L. P. Weng, F. Dousma, E. J. M. Temminghoff, W. H. Van Riemsdijk, Measuring free metal ion concentrations in situ in natural waters using the Donnan membrane technique. *Environ. Sci. Technol.* **2006**, *40*, 955. doi:10.1021/es051435v