Supplementary material

Investigating the binding properties between strontium and dissolved organic matter under the influence of pH and Ca^{2+} in a typical karst area, China

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Table S1 The binding parameters of PARAFAC components and Sr^{2+} at different pH conditions

	pH	Modified Stern-Volmer equation				Site-binding equation			
		LogK_a	*f*	R^2	*P*	LogK_b	*n*	R^2	*P*
C1	pH=3	3.02	28.8	0.7906	< 0.005	2.02	0.91	0.8774	< 0.005
	pH=5	-	-	-	-	-	-	-	-
	pH=7	3.24	12.4	0.9152	< 0.005	3.45	1.53	0.8903	< 0.005
	pH=9	-	-	-	-	3.94	1.62	0.96	< 0.005
C2	pH=3	3.14	9.6	0.9521	< 0.005	0.62	0.62	0.9609	< 0.005
	pH=5	-	-	-	-	-	-	-	-
	pH=7	2.39	16.1	0.9924	< 0.005	0.98	0.83	0.973	< 0.005
	pH=9	3.52	9.4	0.6395	< 0.005	0.58	0.50	0.7783	< 0.005
C3	pH=3	2.48	23.2	0.9848	< 0.005	4.23	1.83	0.8484	< 0.005
	pH=5	1.94	69.4	0.8267	< 0.005	1.89	1.03	0.8477	< 0.005
	pH=7	3.73	15.4	0.7389	< 0.005	0.20	0.34	0.8943	< 0.005
	pH=9	3.20	8.8	0.9689	< 0.005	0.65	0.57	0.9806	< 0.005
C4	pH=3	-	-	-	-	-	-	-	-
	pH=5	2.17	83.4	0.8995	< 0.005	3.29	1.41	0.9098	< 0.005
	pH=7	3.07	26.6	0.9842	< 0.005	1.23	0.67	0.9824	< 0.005
	pH=9	3.06	19.3	0.9477	< 0.005	4.07	1.53	0.8105	< 0.005

Table S2 The binding parameters between DOM components and Sr^{2+} in the presence of Ca^{2+}

Ca^{2+} concentration （mM）		Modified Stern-Volmer equation				Site-binding equation			
		LogK_a	*f*	R^2	*P*	LogK_b	*n*	R^2	*P*
C1	0	3.24	12.4	0.9152	< 0.005	3.45	1.53	0.8903	< 0.005
	0.91	3.10	14.4	0.8081	< 0.005	1.22	0.75	0.9045	< 0.005
	1.60	1.55	208.9	0.8951	< 0.005	3.42	1.51	0.9519	< 0.005
C2	0	2.39	16.1	0.9924	< 0.005	0.98	0.83	0.973	< 0.005
	0.91	2.96	11.0	0.8987	< 0.005	1.33	0.85	0.8447	< 0.005
	1.60	3.13	12.0	0.9572	< 0.005	0.72	0.62	0.9446	< 0.005
C3	0	3.73	15.4	0.7389	< 0.005	0.20	0.34	0.8943	< 0.005
	0.91	3.09	36.8	0.9918	< 0.005	1.31	0.64	0.9626	< 0.005
	1.60	4.08	16.7	0.8088	< 0.005	-	-	-	-
C4	0	3.07	26.6	0.9842	< 0.005	1.23	0.67	0.9824	< 0.005
	0.91	3.24	18.5	0.8049	< 0.005	1.30	0.72	0.8405	< 0.005
	1.60	1.55	348.4	0.9449	< 0.005	2.28	1.05	0.9583	< 0.005