Supplementary Information for:

Transport and attenuation of particles of different density and surface charge: a karst aquifer field study

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Contents of this file

Number of pages: 5

Number of Figures: 2

Number of Tables: 1

List of Tables

List of Figures

Table S1: Tap water and spring water chemistry at the test site during stable discharge conditions of 0.8 $m^3\ s^{-1}$ in April 2015.

Method		Tap water	Spring water	Limit of detection
Cation concentration [mg L^{-1}]				
ICP[a]	Na^+	6.2	6.7	0.03
AAS[b]	K^+	0.7	0.7	0.2
ICP[a]	Ca^{2+}	122.1	106.8	0.13
ICP[a]	Mg^{2+}	8.6	8.8	0.0004
Anion concentration [mg L^{-1}]				
IC[c]	Cl^-	10.7	11.1	1.5
Titration	HCO_3^-	341	339	-
IC[c]	SO_4^{2-}	10.5	10.7	2.5
IC[c]	NO_3^-	14.8	15.0	0.75
Total dissolved solids [mg L^{-1}]				
Calculated from ion content		514.5	499.3	-
pH [-]				
Hach Portable Meter[d]		7.6	7.3	-
Electrical conductivity [$\mu S\ cm^{-1}$]				
Hach Portable Meter[d]		556	569	-

[a]TS 1CAP 6300 DUO; [b]Jena NovAA 400G; [c]Dionex DX 120; [d]Hach Portable Meter HQ40d equipped with Conductivity Probe IntelliCAL^{TM} CDC401 and pH Probe IntelliCAL^{TM} PHC101

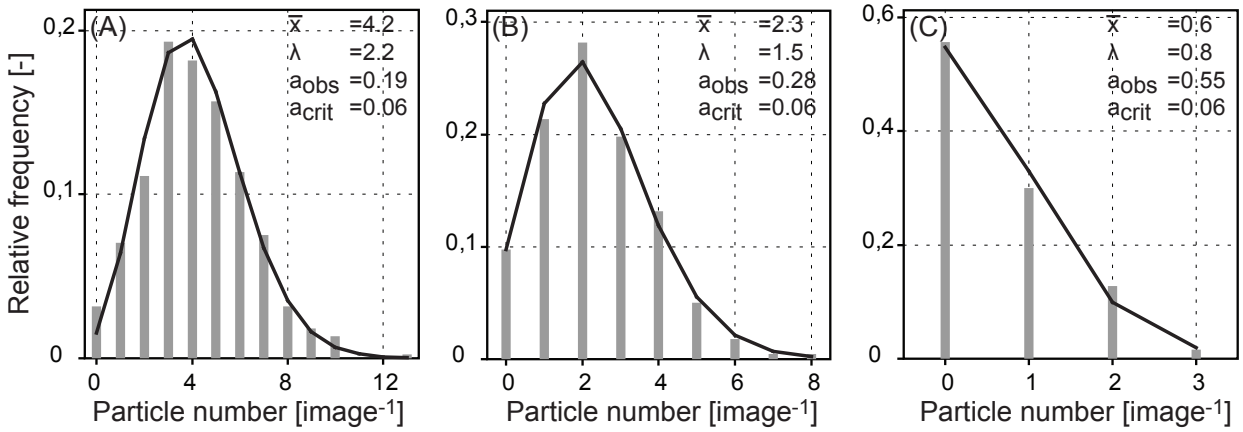

Figure S1: Probability density functions of particle distributions on filters for three examples with mean particle concentrations per image ($\overline{x}$) of (A) 4.2, (B) 2.3, and (C) 0.6. Calculated values for a Kolmogorov-Smirnov test are well above the critical values at a significance level of $\alpha = 5\%$ and $n = 400$ (λ = standard deviation; a_{obs} = Kolmogorov-Smirnov values; a_{crit} = critical Kolmogorov-Smirnov values).

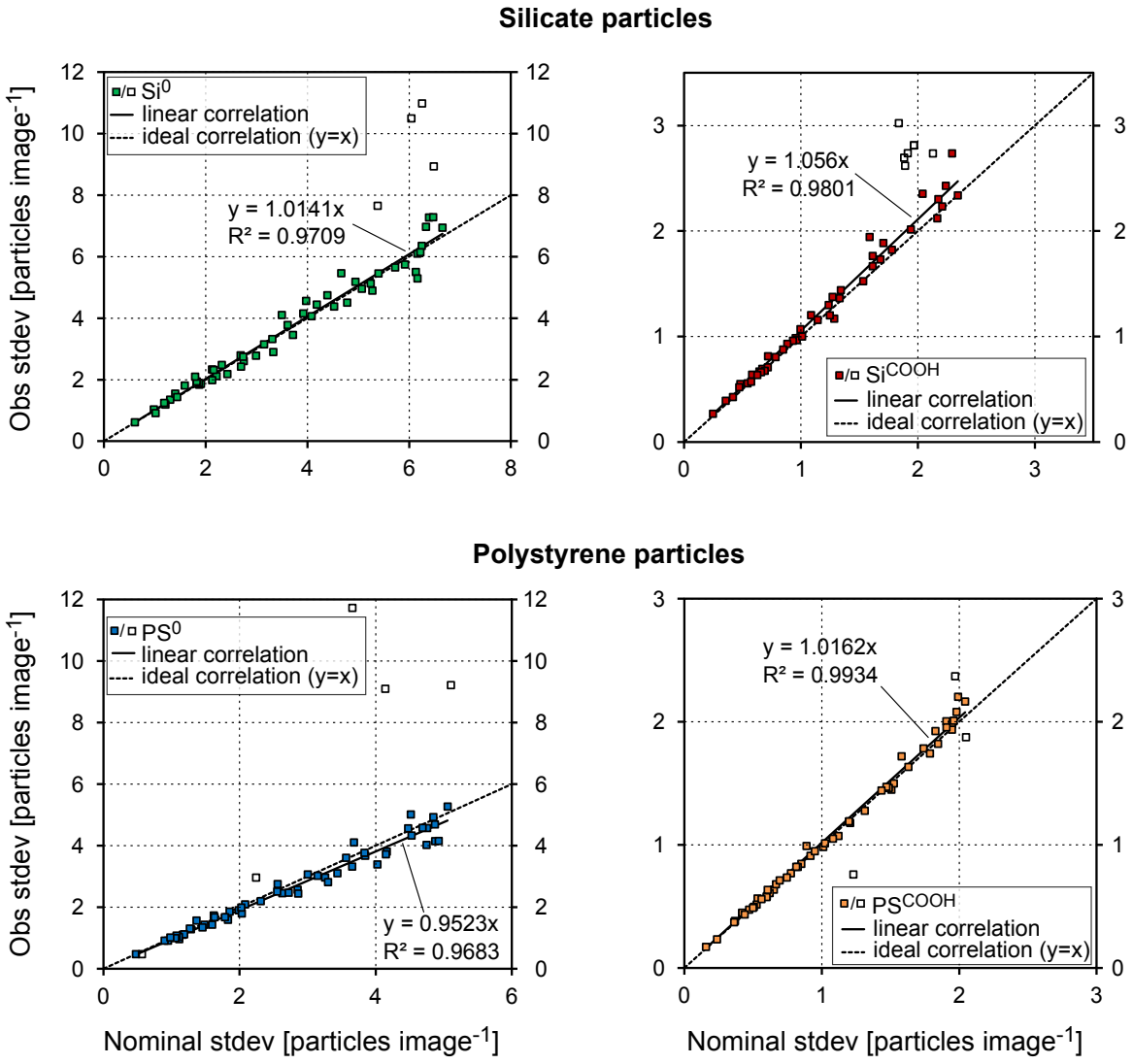

Figure S2: Observed (obs) versus nominal standard deviations (stdev) of particle enumeration for each of the analyzed filters. Filled symbols show analysis that were considered for further processing, unfilled symbols show analysis that were excluded (Si^0: unmodified silicate particles; Si^{COOH}: carboxylated silicate particles; PS^0: unmodified polystyrene particles; PS^{COOH}: carboxylated polystyrene particles)