

Table 1. Pearson correlation coefficient between dissolved heavy metals and metalloids (HMs) and dissolved organic carbon (DOC) and particulate HMs in runoff from soil A and soil B.

Dissolved HMs	Soil A				Soil B			
	DOC	y=f(lnx)	y=f(x)	Particulate HM	DOC	y=f(lnx)	y=f(x)	Particulate HM
Cu	0.51	-	-	-0.45	0.71 ^b	$y = 1.23\ln(x) + 7.1913$ (R ² = 0.56)	$y = 0.2012x + 7.5359$ (R ² = 0.51)	0.21
Zn	0.79 ^a	$y = 4.7299\ln(x) + 7.3608$ (R ² = 0.82)	$y = 0.706x + 8.5344$ (R ² = 0.62)	-0.49	-0.05	-	-	0.22
As	0.73 ^b	$y = 0.1689\ln(x) + 2.571$ (R ² = 0.61)	$y = 0.0271x + 2.6069$ (R ² = 0.53)	0.58	0.41	-	-	0.17
Cd	0.79 ^a	$y = 0.0289\ln(x) + 0.1131$ (R ² = 0.82)	$y = 0.0043x + 0.1202$ (R ² = 0.63)	0.02	0.74 ^b	$y = 0.0124\ln(x) + 0.0493$ (R ² = 0.52)	$y = 0.0022x + 0.0523$ (R ² = 0.54)	0.72 ^b
Pb	0.74 ^b	$y = 0.0942\ln(x) + 0.4444$ (R ² = 0.75)	$y = 0.0138x + 0.4685$ (R ² = 0.55)	0.34	0.61			0.62

a: p < 0.01; b: p < 0.05.

Table S2. Relationships between the dependent variable (enrichment ratio of heavy metals and metalloids; ER_{HM}) and independent variables (x_1 = enrichment ratio of dissolved organic carbon; ER_{DOC} and the x_2 = enrichment ratio of specific surface area; ER_{SSA}).

	Soil A	Soil B
Cu	$y = -0.26 + 1.25x_1 + 0.07x_2$ ($R^2 = 0.93$)	$y = 1.29 + 0.14x_1 + 0.05x_2$ ($R^2 = 0.20$)
Zn	$y = -0.26 + 1.17x_1 + 0.09x_2$ ($R^2 = 0.87$)	$y = 1.29 + 0.19x_1 + 0.05x_2$ ($R^2 = 0.22$)
As	$y = -0.17 + 1.12x_1 + 0.11x_2$ ($R^2 = 0.96$)	$y = 1.35 + 0.18x_1 + 0.05x_2$ ($R^2 = 0.13$)
Cd	$y = -0.35 + 1.31x_1 + 0.11x_2$ ($R^2 = 0.98$)	$y = -4.56 + 3.54x_1 + 0.29x_2$ ($R^2 = 0.55$)
Pb	$y = 0.07 + 0.97x_1 + 0.09x_2$ ($R^2 = 0.89$)	$y = 0.87 + 0.44x_1 + 0.08x_2$ ($R^2 = 0.53$)