

**Geochemistry of major and trace elements and their environmental significances
in core sediments from Bosten Lake, arid northwestern China**

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Tab. S1. Correlation relationship of the geochemical elements.

	Al	Ba	Be	Ca	Fe	K	Mg	Mn	Na	P	Sr	Ti	V	Zn	Cr	Co	Ni	Cu	As	Cd	Tl	Pb	Clay	Silt	Sand	TOC	TIC
Al	1																										
Ba	-.24	1																									
Be	.71**	-.11	1																								
Ca	-.78**	.21	-.63**	1																							
Fe	.96**	-.30	.73**	-.74**	1																						
K	.98**	-.21	.73**	-.81**	.96**	1																					
Mg	.33*	-.88**	.24	-.07	.43**	.30	1																				
Mn	.40**	-.73**	.25	-.08	.47**	.36*	.87**	1																			
Na	.78**	.00	.63**	-.84**	.73**	.84**	.00	-.02	1																		
P	.36*	-.72**	.34*	-.30	.44**	.33*	.79**	.58**	.15	1																	
Sr	-.76**	.55**	-.46**	.55**	-.73**	-.73**	-.56**	-.66**	-.48**	-.30	1																
Ti	.95**	-.10	.74**	-.85**	.91**	.97**	.17	.25	.87**	.26	-.65**	1															
V	.80**	-.40**	.74**	-.67**	.84**	.79**	.48**	.46**	.65**	.56**	-.58**	.75**	1														
Zn	.79**	-.47**	.70**	-.65**	.85**	.78**	.57**	.51**	.59**	.64**	-.57**	.72**	.80**	1													
Cr	.67**	-.62**	.55**	-.50**	.77**	.65**	.73**	.74**	.41**	.68**	-.62**	.59**	.76**	.84**	1												
Co	.78**	-.51**	.64**	-.70**	.85**	.78**	.56**	.42**	.61**	.69**	-.55**	.72**	.79**	.92**	.82**	1											
Ni	.60**	-.68**	.49**	-.45**	.71**	.59**	.78**	.70**	.38*	.75**	-.57**	.52**	.71**	.82**	.95**	.85**	1										
Cu	.42**	-.86**	.28	-.21	.48**	.36*	.92**	.83**	.10	.81**	-.58**	.28	.59**	.60**	.77**	.61**	.82**	1									
As	.55**	-.04	.48**	-.55**	.51**	.54**	.02	.11	.44**	.08	-.47**	.51**	.37*	.43**	.28	.44**	.19	.01	1								
Cd	.32*	-.67**	.14	-.21	.37*	.28	.71**	.65**	.07	.70**	-.46**	.22	.35*	.42**	.52**	.42**	.57**	.79**	.02	1							
Tl	.73**	-.58**	.52**	-.48**	.79**	.72**	.69**	.73**	.45**	.61**	-.67**	.64**	.78**	.77**	.78**	.74**	.75**	.75**	.25	.56**	1						

Pb	.36*	-.89**	.27	-.25	.44**	.32*	.91**	.80**	.07	.86**	-.56*	.24	.51**	.56**	.72**	.58**	.77**	.94**	.03	.82**	.69**	1					
Clay	.33*	-.79**	.13	-.09	.41**	.29	.84**	.82**	-.03	.58**	-.61**	.16	.41**	.43**	.61**	.43**	.60**	.77**	-.01	.55**	.65**	.78**	1				
Silt	-.20	.67**	-.07	-.04	-.29	-.16	-.72**	-.73**	.16	-.45**	.54**	-.04	-.30	-.30	-.46**	-.29	-.42**	-.63**	-.02	-.42**	-.53**	-.64**	-.92**	1			
Sand	-.31	.68**	-.25	.21	-.40**	-.30	-.69**	-.65**	-.11	-.55**	.52**	-.19	-.49**	-.48**	-.58**	-.48**	-.58**	-.65**	-.10	-.43**	-.57**	-.65**	-.82**	.88**	1		
TOC	-.21	.004	.048	-.12	-.17	-.17	-.09	-.34*	.12	.39*	.55**	-.11	.041	.10	-.02	.15	.08	-.00	-.25	.10	-.111	.10	.36*	-.29	.11	1	
TIC	-.73**	.012	-.58**	.86**	-.70**	-.76**	.05	.02	-.89**	-.14	.44**	-.82**	-.63**	-.56**	-.43**	-.59**	-.40**	-.11	-.35*	-.11	-.40**	-.11	-.18	.06	.05	-.18	1

**Correlation is significant at the 0.01 level (2-tailed); *correlation is significant at the 0.01 level (2-tailed).