



Supplement of

Impact of snow deposition on major and trace element concentrations and elementary fluxes in surface waters of the Western Siberian Lowland across a 1700 km latitudinal gradient

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SUPPLEMENTARY INFORMATION

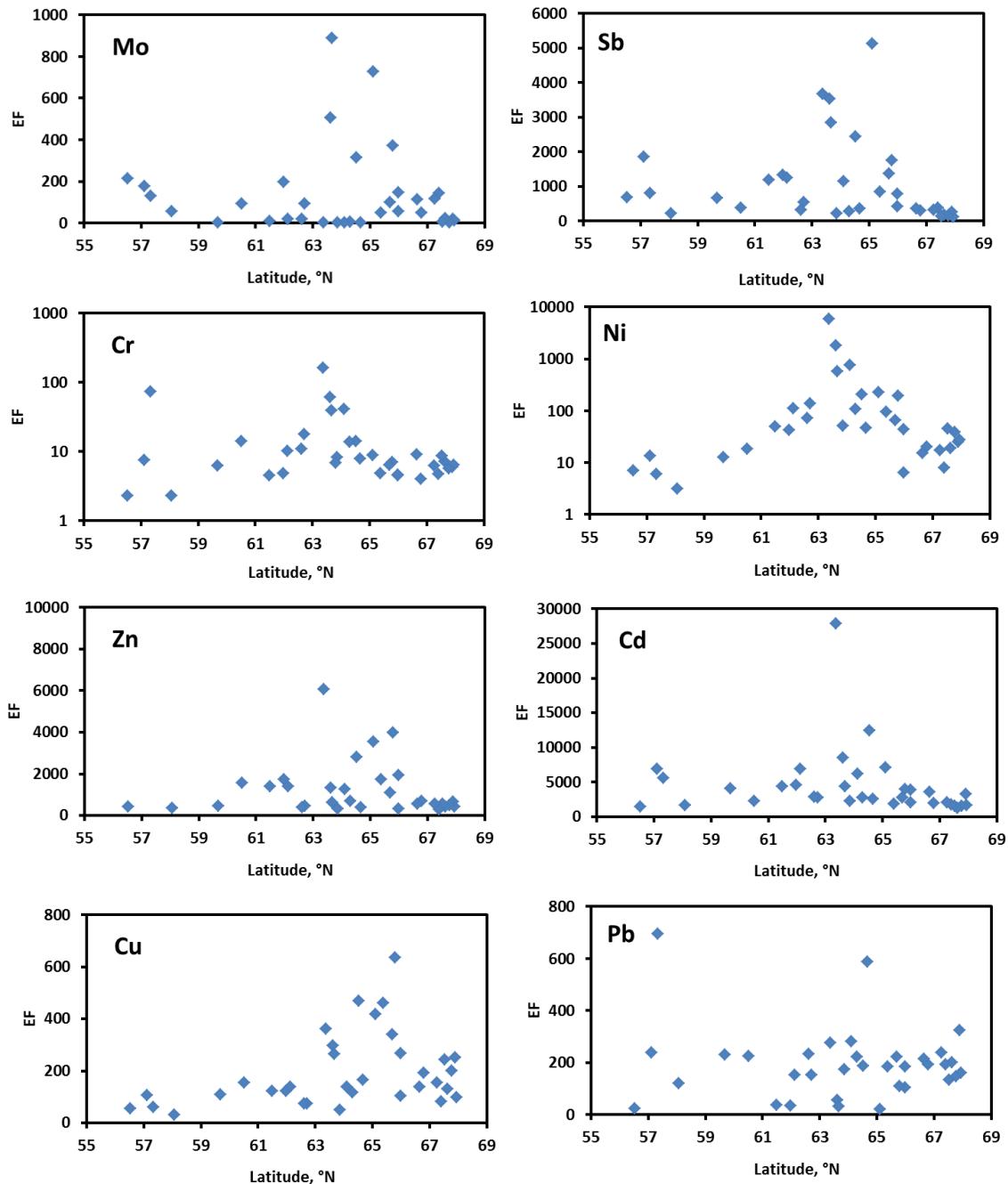
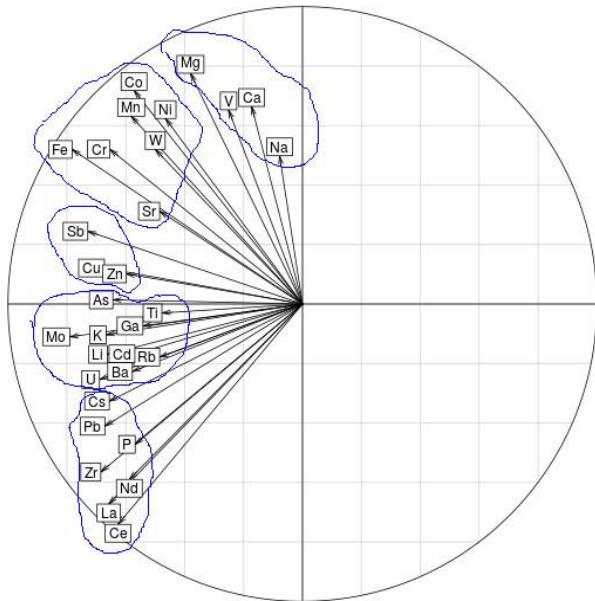


Fig. S1. The Al-based enrichment factors (relative to the upper part of continental earth crust) of particulate fraction of snow for Mo, Sb, Cr, Ni, Zn, Cd, Cu and Pb as a function of latitude.

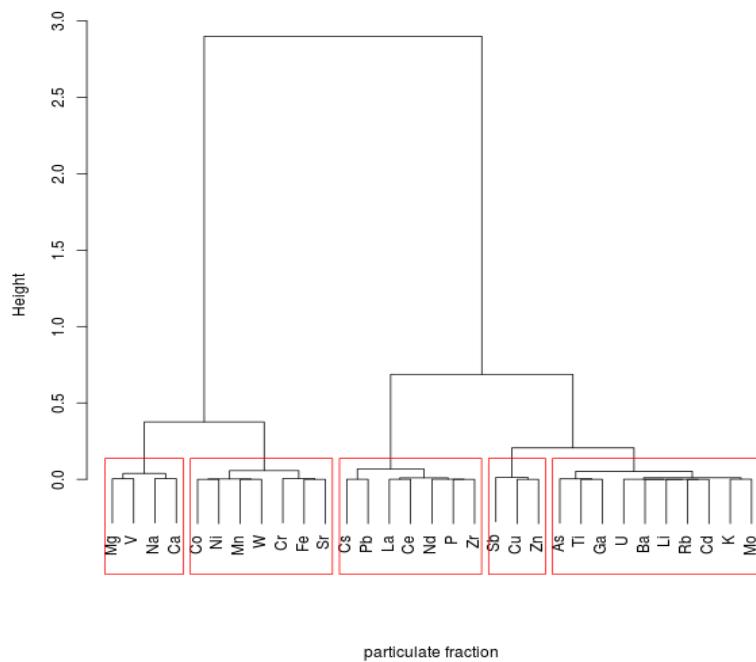
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**A**

partic

Cluster Dendrogram

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**B****B**

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Fig. S2 A. PCA Factorial map F1xF2 of variables (elements) of a reconstructed table for the particulate fraction. Partition of elements into 5 groups revealed by HCA is reported by a contour line. **B:** Dendrogram of a hierarchical cluster analysis (HCA) performed on variables of a reconstructed table for the particulate fraction using Pearson correlation distance as distance measure and Ward's method for the linkage rule.

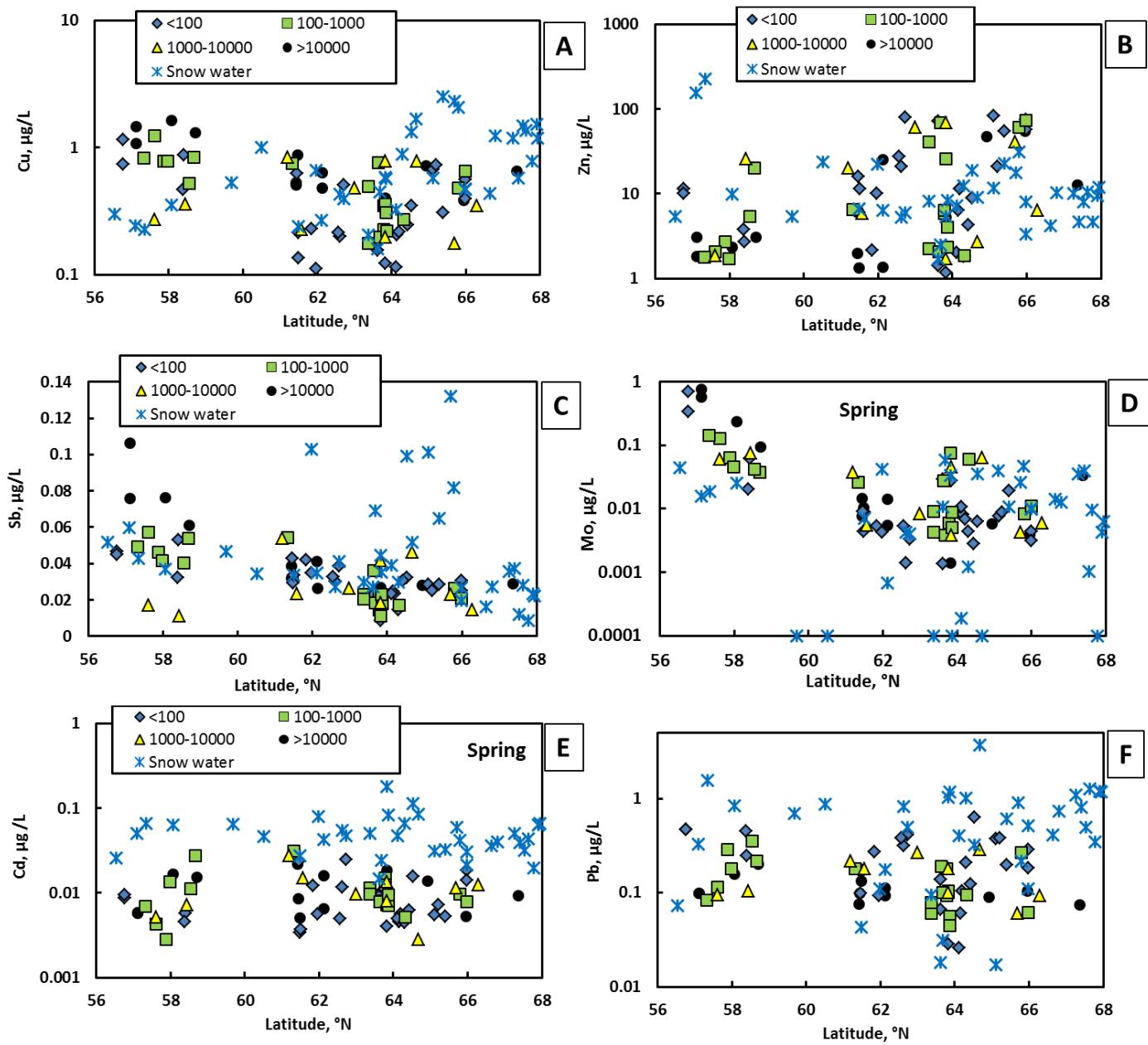


Table S1. Mineralogical composition of selected snow particles.

No	Quartz	Albite	K-Fs	Calcite	Dolomite	Chlorite	Illite	Phlogopite	Amphibole	Pyroxyne	Chrisotyle	Magnesite	Forsterite	Talc	Magnetite
SF-1	37	20	11	19	< 1	4	7		2						
SF-3	38	27	9	3		10	9		3						
SF-14	20	8	6	1	48	5	4		3	1	2			1	
SF-31	30	20	12		8	8		12	6		3				
SF-33	35	16	9		10	3		16	4		3	4			
SF-36	47	7	11		1	4		5	3	3	12		4	3	
SF-38	48	3	6		1	6		4	3		16		6	4	3
SF-39	41	8	6	4	8	5		12	2	2	8		2	2	
SF-40	35	12	9	6	3	4		8	4	3	10		4	2	