Supplemental table 2

	P2O5	*TiO2*	*Al2O3*	*Fe2O3*	*MgO*	*CaO*	*MnO*	*Na2O*	*Sc*	*V*	*Cr*	*Co*	*Ni*	*Cu*	*Zn*	*As*	*Rb*	*Sr*	*Y*	*Zr*	*Nb*	*Cs*	*Ba*	*La*	*Ce*	*Pr*	*Nd*	*Sm*	*Eu*	*Gd*	*Tb*	*Dy*	*Ho*	*Er*	*Tm*	*Yb*	*Lu*	*Hf*	*Ta*	*Pb*	*Th*	*U*
P2O5	1.0																																									
TiO2	0.3	1.0																																								
Al2O3	0.1	0.0	1.0																																							
Fe2O3	0.4	1.0	0.1	1.0																																						
MgO	0.3	0.9	-0.1	0.9	1.0																																					
CaO	0.3	0.8	-0.2	0.8	1.0	1.0																																				
MnO	0.3	1.0	0.0	1.0	0.9	0.8	1.0																																			
Na2O	-0.4	-1.0	0.1	-1.0	-0.9	-0.8	-1.0	1.0																																		
Sc	0.3	1.0	0.0	1.0	0.9	0.8	1.0	-1.0	1.0																																	
V	0.4	1.0	0.1	1.0	0.9	0.8	1.0	-1.0	1.0	1.0																																
Cr	0.3	1.0	0.1	1.0	1.0	0.8	1.0	-0.9	1.0	1.0	1.0																															
Co	0.4	1.0	0.1	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	1.0	1.0																														
Ni	0.3	1.0	0.1	1.0	0.9	0.8	1.0	-0.9	1.0	1.0	1.0	1.0	1.0																													
Cu	0.2	0.6	0.1	0.6	0.6	0.6	0.6	-0.6	0.7	0.6	0.7	0.6	0.7	1.0																												
Zn	0.3	0.4	0.6	0.4	0.3	0.2	0.4	-0.3	0.4	0.4	0.4	0.5	0.5	0.5	1.0																											
As	0.3	0.9	-0.1	0.9	1.0	0.9	0.9	-0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.3	1.0																										
Rb	-0.4	-1.0	0.1	-1.0	-1.0	-0.9	-1.0	1.0	-1.0	-0.9	-1.0	-1.0	-0.9	-0.7	-0.3	-0.9	1.0																									
Sr	0.3	0.8	-0.2	0.8	0.9	1.0	0.8	-0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.2	0.9	-0.8	1.0																								
Y	0.4	1.0	0.0	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.3	0.9	-1.0	0.8	1.0																							
Zr	0.2	0.9	0.2	1.0	0.9	0.7	0.9	-0.9	0.9	0.9	1.0	0.9	0.9	0.6	0.4	0.9	-0.9	0.7	0.9	1.0																						
Nb	0.3	1.0	0.0	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	0.9	1.0	0.9	0.6	0.4	0.9	-0.9	0.8	1.0	0.9	1.0																					
Cs	-0.5	-0.7	0.3	-0.7	-0.8	-0.8	-0.7	0.7	-0.7	-0.7	-0.7	-0.7	-0.6	-0.4	0.0	-0.8	0.7	-0.7	-0.8	-0.6	-0.7	1.0																				
Ba	-0.4	-0.9	0.1	-0.9	-0.9	-0.8	-0.9	1.0	-1.0	-0.9	-0.9	-0.9	-0.9	-0.6	-0.2	-0.9	1.0	-0.8	-0.9	-0.8	-0.9	0.7	1.0																			
La	0.4	0.9	-0.1	0.9	0.8	0.7	0.9	-0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.2	0.8	-0.9	0.7	0.9	0.8	0.9	-0.6	-0.9	1.0																		
Ce	0.4	1.0	-0.1	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	0.9	1.0	0.9	0.6	0.3	0.9	-0.9	0.8	1.0	0.9	1.0	-0.7	-0.9	1.0	1.0																	
Pr	0.4	1.0	-0.1	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	0.9	1.0	0.9	0.6	0.3	0.9	-0.9	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0																
Nd	0.4	1.0	0.0	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	1.0	1.0	0.9	0.6	0.3	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0															
Sm	0.4	1.0	0.0	1.0	0.9	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.3	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0														
Eu	0.4	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.7	-0.9	0.9	1.0	1.0	1.0	1.0	1.0													
Gd	0.4	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.3	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0												
Tb	0.4	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0											
Dy	0.4	1.0	0.0	1.0	0.9	0.8	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0										
Ho	0.4	1.0	0.0	1.0	1.0	0.8	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0									
Er	0.4	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0								
Tm	0.3	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	0.9	0.6	0.3	0.9	-1.0	0.9	1.0	0.9	1.0	-0.7	-0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0							
Yb	0.3	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	1.0	0.6	0.4	0.9	-1.0	0.8	1.0	0.9	1.0	-0.7	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0						
Lu	0.2	0.9	0.0	0.9	1.0	0.9	0.9	-0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.3	0.9	-0.9	0.9	0.9	0.9	0.9	-0.7	-0.9	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0					
Hf	0.2	1.0	0.1	1.0	0.9	0.8	1.0	-0.9	1.0	1.0	1.0	1.0	0.9	0.6	0.4	0.9	-0.9	0.8	1.0	1.0	1.0	-0.7	-0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0				
Ta	0.5	0.2	0.1	0.2	0.3	0.3	0.2	-0.2	0.2	0.2	0.2	0.2	0.2	-0.1	0.3	0.2	-0.2	0.4	0.2	0.1	0.2	-0.3	-0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.0			
Pb	-0.1	0.3	-0.4	0.3	0.4	0.4	0.3	-0.3	0.3	0.3	0.3	0.3	0.3	0.2	-0.3	0.5	-0.4	0.3	0.4	0.3	0.3	-0.5	-0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4	0.0	1.0		
Th	0.1	0.9	-0.2	0.9	0.9	0.8	0.9	-0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.2	0.9	-0.9	0.8	0.9	0.9	0.9	-0.7	-0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.2	0.5	1.0	
U	0.3	1.0	0.0	1.0	1.0	0.9	1.0	-1.0	1.0	1.0	1.0	1.0	0.9	0.6	0.4	1.0	-0.9	0.9	1.0	0.9	1.0	-0.8	-0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.2	0.4	0.9	1.0