GY Property Correlation matrix (Pearson (n)):

Variables	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs	Cu	Fe	Ga	Ge	Hf	Hg	In
Ag	**1**	**-0.536**	**0.469**	**0.448**	**0.449**	**0.512**	-0.024	**0.470**	**0.704**	**0.342**	-0.004	**-0.694**	**0.411**	**0.305**	**-0.571**	**-0.549**	0.129	0.226	**0.783**	**0.534**
Al	**-0.536**	**1**	**-0.561**	**-0.564**	-0.143	**-0.418**	0.170	**-0.516**	**-0.498**	**-0.360**	-0.036	**0.911**	0.141	**-0.326**	**0.706**	**0.816**	-0.019	**-0.397**	**-0.616**	-0.025
As	**0.469**	**-0.561**	**1**	-0.001	**0.426**	**0.692**	**0.455**	0.204	**0.589**	**0.793**	**0.312**	**-0.693**	0.073	**0.704**	-0.180	**-0.675**	**0.453**	0.090	**0.717**	**0.581**
B	**0.448**	**-0.564**	-0.001	**1**	**0.481**	0.066	**-0.769**	**0.740**	**0.603**	-0.124	**-0.446**	**-0.497**	0.136	-0.209	**-0.924**	-0.256	**-0.552**	**0.362**	0.231	-0.127
Ba	**0.449**	-0.143	**0.426**	**0.481**	**1**	**0.417**	-0.244	**0.624**	**0.782**	**0.415**	-0.147	**-0.333**	**0.362**	0.160	**-0.427**	-0.179	-0.132	0.041	**0.342**	**0.453**
Be	**0.512**	**-0.418**	**0.692**	0.066	**0.417**	**1**	**0.430**	**0.298**	**0.613**	**0.527**	**0.589**	**-0.514**	**0.489**	**0.842**	-0.195	**-0.363**	0.285	**0.427**	**0.752**	**0.462**
Bi	-0.024	0.170	**0.455**	**-0.769**	-0.244	**0.430**	**1**	**-0.577**	-0.166	**0.473**	**0.564**	0.029	0.147	**0.638**	**0.576**	-0.072	**0.712**	-0.165	**0.307**	**0.444**
Ca	**0.470**	**-0.516**	0.204	**0.740**	**0.624**	**0.298**	**-0.577**	**1**	**0.645**	0.096	**-0.289**	**-0.536**	0.040	-0.009	**-0.740**	**-0.332**	**-0.378**	**0.508**	**0.392**	-0.030
Cd	**0.704**	**-0.498**	**0.589**	**0.603**	**0.782**	**0.613**	-0.166	**0.645**	**1**	**0.390**	-0.033	**-0.615**	**0.476**	**0.366**	**-0.656**	**-0.415**	-0.105	0.234	**0.658**	**0.492**
Ce	**0.342**	**-0.360**	**0.793**	-0.124	**0.415**	**0.527**	**0.473**	0.096	**0.390**	**1**	0.203	**-0.523**	-0.128	**0.520**	-0.047	**-0.544**	**0.628**	-0.092	**0.547**	**0.507**
Co	-0.004	-0.036	**0.312**	**-0.446**	-0.147	**0.589**	**0.564**	**-0.289**	-0.033	0.203	**1**	-0.008	0.276	**0.664**	**0.420**	0.017	0.250	0.124	0.232	0.211
Cr	**-0.694**	**0.911**	**-0.693**	**-0.497**	**-0.333**	**-0.514**	0.029	**-0.536**	**-0.615**	**-0.523**	-0.008	**1**	-0.005	**-0.394**	**0.678**	**0.859**	-0.152	**-0.289**	**-0.760**	**-0.326**
Cs	**0.411**	0.141	0.073	0.136	**0.362**	**0.489**	0.147	0.040	**0.476**	-0.128	0.276	-0.005	**1**	**0.336**	-0.119	0.182	-0.113	0.077	**0.295**	**0.503**
Cu	**0.305**	**-0.326**	**0.704**	-0.209	0.160	**0.842**	**0.638**	-0.009	**0.366**	**0.520**	**0.664**	**-0.394**	**0.336**	**1**	0.080	**-0.392**	**0.389**	0.208	**0.620**	**0.517**
Fe	**-0.571**	**0.706**	-0.180	**-0.924**	**-0.427**	-0.195	**0.576**	**-0.740**	**-0.656**	-0.047	**0.420**	**0.678**	-0.119	0.080	**1**	**0.403**	**0.300**	**-0.405**	**-0.473**	0.072
Ga	**-0.549**	**0.816**	**-0.675**	-0.256	-0.179	**-0.363**	-0.072	**-0.332**	**-0.415**	**-0.544**	0.017	**0.859**	0.182	**-0.392**	**0.403**	**1**	-0.278	-0.054	**-0.591**	**-0.312**
Ge	0.129	-0.019	**0.453**	**-0.552**	-0.132	0.285	**0.712**	**-0.378**	-0.105	**0.628**	0.250	-0.152	-0.113	**0.389**	**0.300**	-0.278	**1**	-0.181	**0.375**	**0.316**
Hf	0.226	**-0.397**	0.090	**0.362**	0.041	**0.427**	-0.165	**0.508**	0.234	-0.092	0.124	**-0.289**	0.077	0.208	**-0.405**	-0.054	-0.181	**1**	**0.314**	-0.200
Hg	**0.783**	**-0.616**	**0.717**	0.231	**0.342**	**0.752**	**0.307**	**0.392**	**0.658**	**0.547**	0.232	**-0.760**	**0.295**	**0.620**	**-0.473**	**-0.591**	**0.375**	**0.314**	**1**	**0.490**
In	**0.534**	-0.025	**0.581**	-0.127	**0.453**	**0.462**	**0.444**	-0.030	**0.492**	**0.507**	0.211	**-0.326**	**0.503**	**0.517**	0.072	**-0.312**	**0.316**	-0.200	**0.490**	**1**
K	**0.491**	-0.071	**0.403**	**0.343**	**0.843**	**0.370**	-0.060	**0.561**	**0.682**	**0.466**	**-0.293**	**-0.346**	**0.309**	0.136	**-0.395**	-0.185	0.014	-0.005	**0.442**	**0.520**
La	**0.339**	**-0.388**	**0.731**	-0.023	**0.444**	**0.444**	**0.342**	0.183	**0.402**	**0.965**	0.080	**-0.528**	-0.187	**0.400**	-0.127	**-0.544**	**0.503**	-0.110	**0.491**	**0.414**
Li	**-0.603**	**0.690**	**-0.635**	**-0.459**	**-0.471**	-0.198	0.142	**-0.421**	**-0.594**	**-0.581**	0.235	**0.807**	0.113	-0.215	**0.555**	**0.807**	-0.127	0.085	**-0.544**	**-0.455**
Mg	**-0.399**	**0.536**	**-0.560**	0.157	0.268	**-0.409**	**-0.569**	0.233	-0.154	**-0.448**	**-0.321**	**0.600**	-0.057	**-0.498**	0.110	**0.586**	**-0.483**	0.006	**-0.630**	**-0.352**
Mn	0.009	0.145	**0.403**	**-0.563**	-0.034	**0.444**	**0.660**	**-0.393**	0.009	0.245	**0.740**	0.037	**0.288**	**0.579**	**0.543**	-0.058	**0.326**	-0.198	0.222	**0.447**
Mo	**0.543**	**-0.466**	**0.534**	**0.558**	**0.619**	**0.458**	-0.177	**0.429**	**0.830**	0.239	-0.027	**-0.481**	**0.404**	**0.319**	**-0.574**	**-0.361**	-0.082	0.258	**0.484**	**0.397**
Na	**0.334**	-0.268	0.066	**0.769**	**0.761**	-0.020	**-0.734**	**0.706**	**0.575**	0.053	**-0.467**	**-0.301**	0.053	-0.260	**-0.622**	-0.211	**-0.388**	0.109	0.039	0.054
Nb	**0.521**	**-0.300**	**0.432**	0.283	**0.347**	**0.425**	0.081	**0.332**	**0.674**	0.140	-0.109	**-0.394**	**0.458**	0.251	**-0.444**	-0.240	-0.019	**0.359**	**0.530**	**0.388**
Ni	**-0.587**	**0.626**	-0.171	**-0.844**	**-0.357**	-0.095	**0.509**	**-0.611**	**-0.618**	-0.033	**0.463**	**0.652**	-0.120	0.174	**0.942**	**0.359**	0.238	**-0.296**	**-0.456**	-0.006
P	**0.695**	-0.239	**0.567**	0.217	**0.534**	**0.507**	0.235	0.249	**0.751**	**0.451**	-0.024	**-0.505**	**0.508**	**0.431**	**-0.352**	**-0.370**	0.187	-0.019	**0.700**	**0.767**
Pb	0.231	-0.081	**0.583**	**-0.488**	-0.001	**0.667**	**0.799**	**-0.311**	0.166	**0.447**	**0.773**	-0.224	**0.403**	**0.840**	**0.346**	-0.247	**0.515**	-0.084	**0.498**	**0.619**
Rb	**0.605**	-0.112	**0.406**	**0.378**	**0.742**	**0.426**	0.001	**0.393**	**0.785**	**0.375**	-0.204	**-0.367**	**0.579**	0.140	**-0.469**	-0.133	0.050	-0.024	**0.538**	**0.593**
Re	**0.444**	-0.256	**0.328**	**0.474**	**0.687**	0.162	**-0.297**	**0.526**	**0.525**	0.276	-0.247	**-0.500**	0.222	0.059	**-0.436**	**-0.366**	-0.113	0.013	0.271	**0.518**
S	**0.665**	**-0.589**	**0.493**	**0.447**	**0.426**	**0.566**	-0.065	**0.613**	**0.705**	0.205	-0.029	**-0.657**	0.271	**0.311**	**-0.593**	**-0.502**	0.030	**0.458**	**0.689**	**0.291**
Sb	**0.644**	**-0.425**	**0.552**	**0.321**	**0.362**	**0.467**	0.166	**0.317**	**0.611**	**0.406**	-0.171	**-0.612**	**0.323**	**0.377**	**-0.515**	**-0.469**	0.274	0.285	**0.681**	**0.512**
Sc	0.104	**-0.327**	0.135	**0.292**	0.264	**0.371**	-0.241	**0.411**	0.195	0.038	**0.387**	-0.240	0.119	**0.290**	-0.195	-0.061	-0.261	**0.439**	0.125	0.036
Se	**0.595**	**-0.579**	**0.426**	**0.592**	**0.390**	**0.566**	-0.097	**0.419**	**0.743**	0.229	0.098	**-0.621**	**0.503**	**0.394**	**-0.689**	**-0.320**	-0.087	0.284	**0.660**	**0.323**
Sn	**0.408**	0.054	0.164	**0.344**	**0.579**	0.119	-0.156	0.214	**0.557**	0.080	-0.245	-0.039	**0.491**	-0.094	**-0.298**	0.023	-0.094	-0.020	0.191	**0.382**
Sr	**0.499**	**-0.566**	0.080	**0.869**	**0.543**	0.251	**-0.653**	**0.905**	**0.638**	-0.006	-0.278	**-0.521**	0.124	-0.068	**-0.866**	-0.258	**-0.418**	**0.473**	**0.394**	-0.119
Ta	**0.292**	**-0.554**	-0.083	**0.622**	-0.180	0.128	**-0.304**	**0.293**	0.238	-0.258	-0.126	**-0.408**	0.147	-0.009	**-0.684**	-0.142	**-0.388**	**0.433**	**0.313**	-0.265
Te	**0.404**	**-0.488**	**0.673**	0.066	0.106	**0.621**	**0.430**	0.126	**0.485**	**0.459**	0.149	**-0.532**	0.171	**0.603**	-0.287	**-0.436**	**0.372**	**0.388**	**0.638**	**0.371**
Th	**-0.424**	0.021	0.051	**-0.458**	**-0.323**	0.111	**0.291**	-0.221	**-0.409**	0.206	**0.425**	0.207	**-0.418**	0.248	**0.484**	-0.041	**0.298**	-0.041	-0.183	**-0.288**
Ti	**0.291**	-0.062	0.173	**0.411**	**0.514**	-0.033	**-0.325**	0.280	**0.514**	0.102	**-0.413**	-0.067	0.190	-0.076	**-0.350**	-0.082	-0.098	0.020	0.080	**0.300**
Tl	**0.610**	-0.144	**0.601**	0.207	**0.696**	**0.507**	0.205	0.237	**0.777**	**0.542**	0.030	**-0.419**	**0.551**	**0.372**	**-0.290**	-0.253	0.193	-0.142	**0.615**	**0.816**
U	0.223	**-0.372**	-0.159	**0.472**	-0.198	0.207	-0.174	0.102	0.167	**-0.341**	0.117	-0.204	**0.376**	0.090	**-0.491**	0.024	**-0.322**	**0.398**	0.259	-0.246
V	-0.119	**0.530**	-0.105	0.009	**0.515**	-0.222	-0.223	0.009	0.205	-0.026	-0.278	**0.474**	0.172	-0.246	0.168	**0.374**	-0.139	**-0.299**	**-0.351**	0.207
W	0.063	-0.120	0.137	0.121	0.033	0.112	0.049	0.030	0.189	-0.072	0.037	-0.048	0.157	0.106	-0.132	0.053	-0.124	**0.289**	0.102	0.074
Y	**0.590**	**-0.502**	**0.549**	**0.288**	**0.460**	**0.818**	0.155	**0.462**	**0.610**	**0.428**	**0.440**	**-0.616**	**0.443**	**0.692**	**-0.363**	**-0.381**	0.025	**0.388**	**0.730**	**0.503**
Zn	**-0.359**	**0.764**	-0.148	**-0.700**	0.004	-0.004	**0.399**	**-0.394**	**-0.291**	-0.038	**0.366**	**0.648**	0.167	0.081	**0.834**	**0.454**	0.090	-0.284	**-0.368**	0.236
Zr	0.198	**-0.383**	-0.072	**0.382**	-0.004	0.251	**-0.317**	**0.542**	0.104	-0.045	0.001	-0.246	-0.186	0.008	**-0.423**	-0.076	-0.028	**0.777**	0.234	**-0.416**
Au	0.232	-0.253	0.168	0.142	-0.029	0.116	0.078	0.008	0.174	0.217	-0.057	-0.232	0.033	0.219	-0.228	-0.195	0.171	0.005	**0.345**	0.151

Values in bold are different from 0 with a significance level alpha=0.05

GY Property Correlation matrix (Pearson (n)):

Variables	K	La	Li	Mg	Mn	Mo	Na	Nb	Ni	P	Pb	Rb	Re	S	Sb	Sc	Se	Sn	Sr	Ta
Ag	**0.491**	**0.339**	**-0.603**	**-0.399**	0.009	**0.543**	**0.334**	**0.521**	**-0.587**	**0.695**	0.231	**0.605**	**0.444**	**0.665**	**0.644**	0.104	**0.595**	**0.408**	**0.499**	**0.292**
Al	-0.071	**-0.388**	**0.690**	**0.536**	0.145	**-0.466**	-0.268	**-0.300**	**0.626**	-0.239	-0.081	-0.112	-0.256	**-0.589**	**-0.425**	**-0.327**	**-0.579**	0.054	**-0.566**	**-0.554**
As	**0.403**	**0.731**	**-0.635**	**-0.560**	**0.403**	**0.534**	0.066	**0.432**	-0.171	**0.567**	**0.583**	**0.406**	**0.328**	**0.493**	**0.552**	0.135	**0.426**	0.164	0.080	-0.083
B	**0.343**	-0.023	**-0.459**	0.157	**-0.563**	**0.558**	**0.769**	0.283	**-0.844**	0.217	**-0.488**	**0.378**	**0.474**	**0.447**	**0.321**	**0.292**	**0.592**	**0.344**	**0.869**	**0.622**
Ba	**0.843**	**0.444**	**-0.471**	0.268	-0.034	**0.619**	**0.761**	**0.347**	**-0.357**	**0.534**	-0.001	**0.742**	**0.687**	**0.426**	**0.362**	0.264	**0.390**	**0.579**	**0.543**	-0.180
Be	**0.370**	**0.444**	-0.198	**-0.409**	**0.444**	**0.458**	-0.020	**0.425**	-0.095	**0.507**	**0.667**	**0.426**	0.162	**0.566**	**0.467**	**0.371**	**0.566**	0.119	0.251	0.128
Bi	-0.060	**0.342**	0.142	**-0.569**	**0.660**	-0.177	**-0.734**	0.081	**0.509**	0.235	**0.799**	0.001	**-0.297**	-0.065	0.166	-0.241	-0.097	-0.156	**-0.653**	**-0.304**
Ca	**0.561**	0.183	**-0.421**	0.233	**-0.393**	**0.429**	**0.706**	**0.332**	**-0.611**	0.249	**-0.311**	**0.393**	**0.526**	**0.613**	**0.317**	**0.411**	**0.419**	0.214	**0.905**	**0.293**
Cd	**0.682**	**0.402**	**-0.594**	-0.154	0.009	**0.830**	**0.575**	**0.674**	**-0.618**	**0.751**	0.166	**0.785**	**0.525**	**0.705**	**0.611**	0.195	**0.743**	**0.557**	**0.638**	0.238
Ce	**0.466**	**0.965**	**-0.581**	**-0.448**	0.245	0.239	0.053	0.140	-0.033	**0.451**	**0.447**	**0.375**	0.276	0.205	**0.406**	0.038	0.229	0.080	-0.006	-0.258
Co	**-0.293**	0.080	0.235	**-0.321**	**0.740**	-0.027	**-0.467**	-0.109	**0.463**	-0.024	**0.773**	-0.204	-0.247	-0.029	-0.171	**0.387**	0.098	-0.245	-0.278	-0.126
Cr	**-0.346**	**-0.528**	**0.807**	**0.600**	0.037	**-0.481**	**-0.301**	**-0.394**	**0.652**	**-0.505**	-0.224	**-0.367**	**-0.500**	**-0.657**	**-0.612**	-0.240	**-0.621**	-0.039	**-0.521**	**-0.408**
Cs	**0.309**	-0.187	0.113	-0.057	**0.288**	**0.404**	0.053	**0.458**	-0.120	**0.508**	**0.403**	**0.579**	0.222	0.271	**0.323**	0.119	**0.503**	**0.491**	0.124	0.147
Cu	0.136	**0.400**	-0.215	**-0.498**	**0.579**	**0.319**	-0.260	0.251	0.174	**0.431**	**0.840**	0.140	0.059	**0.311**	**0.377**	**0.290**	**0.394**	-0.094	-0.068	-0.009
Fe	**-0.395**	-0.127	**0.555**	0.110	**0.543**	**-0.574**	**-0.622**	**-0.444**	**0.942**	**-0.352**	**0.346**	**-0.469**	**-0.436**	**-0.593**	**-0.515**	-0.195	**-0.689**	**-0.298**	**-0.866**	**-0.684**
Ga	-0.185	**-0.544**	**0.807**	**0.586**	-0.058	**-0.361**	-0.211	-0.240	**0.359**	**-0.370**	-0.247	-0.133	**-0.366**	**-0.502**	**-0.469**	-0.061	**-0.320**	0.023	-0.258	-0.142
Ge	0.014	**0.503**	-0.127	**-0.483**	**0.326**	-0.082	**-0.388**	-0.019	0.238	0.187	**0.515**	0.050	-0.113	0.030	0.274	-0.261	-0.087	-0.094	**-0.418**	**-0.388**
Hf	-0.005	-0.110	0.085	0.006	-0.198	0.258	0.109	**0.359**	**-0.296**	-0.019	-0.084	-0.024	0.013	**0.458**	0.285	**0.439**	0.284	-0.020	**0.473**	**0.433**
Hg	**0.442**	**0.491**	**-0.544**	**-0.630**	0.222	**0.484**	0.039	**0.530**	**-0.456**	**0.700**	**0.498**	**0.538**	0.271	**0.689**	**0.681**	0.125	**0.660**	0.191	**0.394**	**0.313**
In	**0.520**	**0.414**	**-0.455**	**-0.352**	**0.447**	**0.397**	0.054	**0.388**	-0.006	**0.767**	**0.619**	**0.593**	**0.518**	**0.291**	**0.512**	0.036	**0.323**	**0.382**	-0.119	-0.265
K	**1**	**0.520**	**-0.453**	0.080	-0.154	**0.393**	**0.525**	**0.438**	**-0.380**	**0.630**	-0.002	**0.849**	**0.623**	**0.404**	**0.482**	0.027	**0.370**	**0.481**	**0.444**	-0.106
La	**0.520**	**1**	**-0.608**	**-0.387**	0.079	0.186	0.125	0.112	-0.088	**0.399**	0.277	**0.396**	**0.293**	0.187	**0.340**	0.023	0.233	0.053	0.086	-0.189
Li	**-0.453**	**-0.608**	**1**	**0.401**	0.113	**-0.505**	**-0.482**	**-0.290**	**0.558**	**-0.543**	-0.067	**-0.414**	**-0.629**	**-0.406**	**-0.541**	-0.077	**-0.463**	-0.238	**-0.385**	-0.128
Mg	0.080	**-0.387**	**0.401**	**1**	**-0.309**	-0.095	**0.496**	**-0.338**	0.192	**-0.433**	**-0.563**	-0.144	0.082	-0.283	**-0.450**	0.170	**-0.387**	0.148	0.163	**-0.361**
Mn	-0.154	0.079	0.113	**-0.309**	**1**	0.054	**-0.415**	-0.012	**0.494**	0.239	**0.830**	-0.065	-0.116	0.011	0.035	-0.014	-0.083	-0.017	**-0.476**	**-0.372**
Mo	**0.393**	0.186	**-0.505**	-0.095	0.054	**1**	**0.566**	**0.662**	**-0.554**	**0.581**	0.147	**0.560**	**0.385**	**0.592**	**0.578**	0.184	**0.588**	**0.655**	**0.472**	0.179
Na	**0.525**	0.125	**-0.482**	**0.496**	**-0.415**	**0.566**	**1**	0.116	**-0.545**	0.187	**-0.457**	**0.404**	**0.660**	**0.322**	0.179	0.287	0.254	**0.487**	**0.692**	-0.022
Nb	**0.438**	0.112	**-0.290**	**-0.338**	-0.012	**0.662**	0.116	**1**	**-0.501**	**0.656**	0.158	**0.641**	0.170	**0.610**	**0.676**	-0.091	**0.511**	**0.526**	**0.290**	**0.302**
Ni	**-0.380**	-0.088	**0.558**	0.192	**0.494**	**-0.554**	**-0.545**	**-0.501**	**1**	**-0.417**	**0.318**	**-0.531**	**-0.425**	**-0.567**	**-0.539**	-0.060	**-0.675**	**-0.378**	**-0.732**	**-0.652**
P	**0.630**	**0.399**	**-0.543**	**-0.433**	0.239	**0.581**	0.187	**0.656**	**-0.417**	**1**	**0.418**	**0.784**	**0.477**	**0.542**	**0.777**	-0.173	**0.568**	**0.468**	0.233	0.109
Pb	-0.002	0.277	-0.067	**-0.563**	**0.830**	0.147	**-0.457**	0.158	**0.318**	**0.418**	**1**	0.106	-0.014	0.151	0.236	0.126	0.213	-0.050	**-0.348**	-0.203
Rb	**0.849**	**0.396**	**-0.414**	-0.144	-0.065	**0.560**	**0.404**	**0.641**	**-0.531**	**0.784**	0.106	**1**	**0.507**	**0.489**	**0.582**	-0.054	**0.601**	**0.657**	**0.399**	0.096
Re	**0.623**	**0.293**	**-0.629**	0.082	-0.116	**0.385**	**0.660**	0.170	**-0.425**	**0.477**	-0.014	**0.507**	**1**	**0.303**	**0.428**	0.273	**0.337**	0.275	**0.443**	-0.067
S	**0.404**	0.187	**-0.406**	-0.283	0.011	**0.592**	**0.322**	**0.610**	**-0.567**	**0.542**	0.151	**0.489**	**0.303**	**1**	**0.564**	0.115	**0.527**	**0.300**	**0.569**	**0.305**
Sb	**0.482**	**0.340**	**-0.541**	**-0.450**	0.035	**0.578**	0.179	**0.676**	**-0.539**	**0.777**	0.236	**0.582**	**0.428**	**0.564**	**1**	-0.193	**0.524**	**0.332**	**0.297**	0.283
Sc	0.027	0.023	-0.077	0.170	-0.014	0.184	0.287	-0.091	-0.060	-0.173	0.126	-0.054	0.273	0.115	-0.193	**1**	**0.329**	-0.093	**0.427**	0.105
Se	**0.370**	0.233	**-0.463**	**-0.387**	-0.083	**0.588**	0.254	**0.511**	**-0.675**	**0.568**	0.213	**0.601**	**0.337**	**0.527**	**0.524**	**0.329**	**1**	0.274	**0.560**	**0.616**
Sn	**0.481**	0.053	-0.238	0.148	-0.017	**0.655**	**0.487**	**0.526**	**-0.378**	**0.468**	-0.050	**0.657**	0.275	**0.300**	**0.332**	-0.093	0.274	**1**	0.235	-0.057
Sr	**0.444**	0.086	**-0.385**	0.163	**-0.476**	**0.472**	**0.692**	**0.290**	**-0.732**	0.233	**-0.348**	**0.399**	**0.443**	**0.569**	**0.297**	**0.427**	**0.560**	0.235	**1**	**0.512**
Ta	-0.106	-0.189	-0.128	**-0.361**	**-0.372**	0.179	-0.022	**0.302**	**-0.652**	0.109	-0.203	0.096	-0.067	**0.305**	0.283	0.105	**0.616**	-0.057	**0.512**	**1**
Te	0.191	**0.366**	**-0.320**	**-0.582**	0.204	**0.529**	-0.149	**0.641**	**-0.322**	**0.518**	**0.435**	**0.344**	0.036	**0.592**	**0.693**	-0.045	**0.471**	0.142	0.095	0.285
Th	**-0.407**	0.166	**0.289**	0.058	0.252	**-0.346**	**-0.325**	**-0.491**	**0.584**	**-0.565**	0.217	**-0.563**	**-0.484**	**-0.290**	**-0.506**	0.287	**-0.339**	**-0.438**	-0.282	**-0.317**
Ti	**0.401**	0.111	**-0.405**	0.229	**-0.316**	**0.654**	**0.566**	**0.441**	**-0.353**	**0.345**	-0.237	**0.458**	**0.332**	0.195	**0.313**	0.050	0.284	**0.730**	0.284	-0.051
Tl	**0.742**	**0.506**	**-0.530**	-0.286	0.235	**0.605**	**0.293**	**0.556**	**-0.367**	**0.884**	**0.400**	**0.890**	**0.538**	**0.427**	**0.594**	-0.011	**0.599**	**0.609**	0.218	-0.036
U	-0.256	**-0.320**	0.097	-0.279	-0.146	0.189	-0.097	0.210	**-0.427**	0.048	-0.010	0.024	-0.186	0.216	0.163	0.162	**0.563**	0.020	**0.398**	**0.856**
V	**0.350**	-0.025	0.044	**0.638**	-0.046	**0.332**	**0.470**	0.093	0.137	0.113	-0.227	**0.313**	0.177	-0.143	-0.093	-0.118	-0.207	**0.611**	-0.063	**-0.562**
W	-0.011	-0.097	-0.024	-0.098	0.005	**0.382**	-0.043	**0.352**	-0.133	0.103	0.021	0.101	-0.134	0.221	0.198	-0.050	0.177	0.286	0.038	0.243
Y	**0.425**	**0.399**	**-0.383**	**-0.354**	0.266	**0.361**	0.133	**0.295**	-0.236	**0.534**	**0.517**	**0.427**	**0.414**	**0.509**	**0.422**	**0.584**	**0.675**	0.034	**0.469**	**0.288**
Zn	0.000	-0.085	**0.512**	**0.339**	**0.511**	**-0.352**	**-0.292**	-0.232	**0.822**	-0.096	0.277	-0.115	-0.174	**-0.370**	**-0.371**	-0.127	**-0.539**	-0.028	**-0.580**	**-0.738**
Zr	-0.059	-0.045	0.085	0.151	**-0.353**	0.071	0.224	0.000	**-0.297**	-0.195	-0.258	-0.160	-0.053	**0.315**	0.119	**0.402**	0.159	-0.187	**0.562**	**0.323**
Au	-0.014	0.177	-0.265	-0.274	0.013	0.238	-0.030	0.111	-0.220	0.273	0.181	0.093	0.018	0.072	0.223	0.015	**0.305**	0.117	0.066	0.259

Values in bold are different from 0 with a significance level alpha=0.05

GY Property Correlation matrix (Pearson (n)):

Variables	Te	Th	Ti	Tl	U	V	W	Y	Zn	Zr	Au
Ag	**0.404**	**-0.424**	**0.291**	**0.610**	0.223	-0.119	0.063	**0.590**	**-0.359**	0.198	0.232
Al	**-0.488**	0.021	-0.062	-0.144	**-0.372**	**0.530**	-0.120	**-0.502**	**0.764**	**-0.383**	-0.253
As	**0.673**	0.051	0.173	**0.601**	-0.159	-0.105	0.137	**0.549**	-0.148	-0.072	0.168
B	0.066	**-0.458**	**0.411**	0.207	**0.472**	0.009	0.121	**0.288**	**-0.700**	**0.382**	0.142
Ba	0.106	**-0.323**	**0.514**	**0.696**	-0.198	**0.515**	0.033	**0.460**	0.004	-0.004	-0.029
Be	**0.621**	0.111	-0.033	**0.507**	0.207	-0.222	0.112	**0.818**	-0.004	0.251	0.116
Bi	**0.430**	**0.291**	**-0.325**	0.205	-0.174	-0.223	0.049	0.155	**0.399**	**-0.317**	0.078
Ca	0.126	-0.221	0.280	0.237	0.102	0.009	0.030	**0.462**	**-0.394**	**0.542**	0.008
Cd	**0.485**	**-0.409**	**0.514**	**0.777**	0.167	0.205	0.189	**0.610**	**-0.291**	0.104	0.174
Ce	**0.459**	0.206	0.102	**0.542**	**-0.341**	-0.026	-0.072	**0.428**	-0.038	-0.045	0.217
Co	0.149	**0.425**	**-0.413**	0.030	0.117	-0.278	0.037	**0.440**	**0.366**	0.001	-0.057
Cr	**-0.532**	0.207	-0.067	**-0.419**	-0.204	**0.474**	-0.048	**-0.616**	**0.648**	-0.246	-0.232
Cs	0.171	**-0.418**	0.190	**0.551**	**0.376**	0.172	0.157	**0.443**	0.167	-0.186	0.033
Cu	**0.603**	0.248	-0.076	**0.372**	0.090	-0.246	0.106	**0.692**	0.081	0.008	0.219
Fe	-0.287	**0.484**	**-0.350**	**-0.290**	**-0.491**	0.168	-0.132	**-0.363**	**0.834**	**-0.423**	-0.228
Ga	**-0.436**	-0.041	-0.082	-0.253	0.024	**0.374**	0.053	**-0.381**	**0.454**	-0.076	-0.195
Ge	**0.372**	**0.298**	-0.098	0.193	**-0.322**	-0.139	-0.124	0.025	0.090	-0.028	0.171
Hf	**0.388**	-0.041	0.020	-0.142	**0.398**	**-0.299**	**0.289**	**0.388**	-0.284	**0.777**	0.005
Hg	**0.638**	-0.183	0.080	**0.615**	0.259	**-0.351**	0.102	**0.730**	**-0.368**	0.234	**0.345**
In	**0.371**	**-0.288**	**0.300**	**0.816**	-0.246	0.207	0.074	**0.503**	0.236	**-0.416**	0.151
K	0.191	**-0.407**	**0.401**	**0.742**	-0.256	**0.350**	-0.011	**0.425**	0.000	-0.059	-0.014
La	**0.366**	0.166	0.111	**0.506**	**-0.320**	-0.025	-0.097	**0.399**	-0.085	-0.045	0.177
Li	**-0.320**	**0.289**	**-0.405**	**-0.530**	0.097	0.044	-0.024	**-0.383**	**0.512**	0.085	-0.265
Mg	**-0.582**	0.058	0.229	-0.286	-0.279	**0.638**	-0.098	**-0.354**	**0.339**	0.151	-0.274
Mn	0.204	0.252	**-0.316**	0.235	-0.146	-0.046	0.005	0.266	**0.511**	**-0.353**	0.013
Mo	**0.529**	**-0.346**	**0.654**	**0.605**	0.189	**0.332**	**0.382**	**0.361**	**-0.352**	0.071	0.238
Na	-0.149	**-0.325**	**0.566**	**0.293**	-0.097	**0.470**	-0.043	0.133	**-0.292**	0.224	-0.030
Nb	**0.641**	**-0.491**	**0.441**	**0.556**	0.210	0.093	**0.352**	**0.295**	-0.232	0.000	0.111
Ni	**-0.322**	**0.584**	**-0.353**	**-0.367**	**-0.427**	0.137	-0.133	-0.236	**0.822**	**-0.297**	-0.220
P	**0.518**	**-0.565**	**0.345**	**0.884**	0.048	0.113	0.103	**0.534**	-0.096	-0.195	0.273
Pb	**0.435**	0.217	-0.237	**0.400**	-0.010	-0.227	0.021	**0.517**	0.277	-0.258	0.181
Rb	**0.344**	**-0.563**	**0.458**	**0.890**	0.024	**0.313**	0.101	**0.427**	-0.115	-0.160	0.093
Re	0.036	**-0.484**	**0.332**	**0.538**	-0.186	0.177	-0.134	**0.414**	-0.174	-0.053	0.018
S	**0.592**	**-0.290**	0.195	**0.427**	0.216	-0.143	0.221	**0.509**	**-0.370**	**0.315**	0.072
Sb	**0.693**	**-0.506**	**0.313**	**0.594**	0.163	-0.093	0.198	**0.422**	**-0.371**	0.119	0.223
Sc	-0.045	0.287	0.050	-0.011	0.162	-0.118	-0.050	**0.584**	-0.127	**0.402**	0.015
Se	**0.471**	**-0.339**	0.284	**0.599**	**0.563**	-0.207	0.177	**0.675**	**-0.539**	0.159	**0.305**
Sn	0.142	**-0.438**	**0.730**	**0.609**	0.020	**0.611**	0.286	0.034	-0.028	-0.187	0.117
Sr	0.095	-0.282	0.284	0.218	**0.398**	-0.063	0.038	**0.469**	**-0.580**	**0.562**	0.066
Ta	0.285	**-0.317**	-0.051	-0.036	**0.856**	**-0.562**	0.243	**0.288**	**-0.738**	**0.323**	0.259
Te	**1**	-0.035	0.137	**0.400**	0.157	-0.208	**0.382**	**0.369**	**-0.327**	0.151	0.284
Th	-0.035	**1**	**-0.330**	**-0.457**	-0.211	-0.151	-0.229	-0.068	0.254	0.195	0.005
Ti	0.137	**-0.330**	**1**	**0.461**	-0.088	**0.661**	**0.300**	-0.006	-0.171	-0.074	0.222
Tl	**0.400**	**-0.457**	**0.461**	**1**	-0.068	**0.302**	0.126	**0.527**	-0.018	**-0.301**	0.214
U	0.157	-0.211	-0.088	-0.068	**1**	**-0.479**	0.204	**0.311**	**-0.532**	0.263	0.242
V	-0.208	-0.151	**0.661**	**0.302**	**-0.479**	**1**	0.085	**-0.322**	**0.423**	**-0.312**	-0.097
W	**0.382**	-0.229	**0.300**	0.126	0.204	0.085	**1**	0.026	-0.133	-0.023	0.080
Y	**0.369**	-0.068	-0.006	**0.527**	**0.311**	**-0.322**	0.026	**1**	-0.161	0.228	0.206
Zn	**-0.327**	0.254	-0.171	-0.018	**-0.532**	**0.423**	-0.133	-0.161	**1**	**-0.344**	**-0.374**
Zr	0.151	0.195	-0.074	**-0.301**	0.263	**-0.312**	-0.023	0.228	**-0.344**	**1**	-0.013
Au	0.284	0.005	0.222	0.214	0.242	-0.097	0.080	0.206	**-0.374**	-0.013	**1**

Values in bold are different from 0 with a significance level alpha=0.05