**Table S2**

Statistical table of the relationship between each index and weathering time.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Items | Slope | *SE* | *R2* | Adj *R2* | *p* | Model |
| *CaO* | -36.93 | 3.94 | 0.71 | 0.67 | 0.002\*\* | *y=a+bx* |
| *MgO* | 115.70 | 25.84 | 0.018 | -0.105 | 0.7097 | *y=a+bx* |
| *Al2O3* | 495.25 | 103.83 | 0.21 | 0.11 | 0.1844 | *y=a+bx* |
| *Fe2O3* | 454.63 | 103.86 | 0.01 | -0.11 | 0.7793 | *y=a+bx* |
| *SiO2* | 400.96 | 73.26 | 0.29 | 0.21 | 0.1031 | *y=a+bx* |
| *TiO2* | 672.72 | 152.91 | 0.21 | 0.09 | 0.2181 | *y=a+bx* |
| *AC* | 0.088 | 0.0097 | 0.75 | 0.72 | 0.0012\*\* | *y=a+b×ln(x)* |
| *CIA* | 8.04 | 0.82 | 0.77 | 0.74 | <0.001\*\*\* | *y=a+b×ln(x)* |
| *Lc* | 0.32 | 0.036 | 0.72 | 0.68 | 0.0019\*\* | *y=a+b×ln(x)* |
| *Imob* | 0.77 | 0.12 | 0.73 | 0.70 | 0.0016\*\* | *y=a+b×ln(x)* |
| *Ws* | 34.55 | 3.50 | 0.09 | -0.03 | 0.41 | *y=a+bx* |