**Efficiency of thermally activated eggshells for acid mine drainage treatment**

**in cold climate**

**Figure 1S** X-ray diffraction results for eggshell samples: raw, calcined at 800°C, 850°C, and 900°C









**Figure 2S** Thermogravimetry analysis result of raw eggshell



**Table 1S** Elemental analysis results (mg/kg) of eggshell samples: raw, calcined at 800°C, 850°C, and 900°C

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Eggshell sample | Al | Ca | Co | Cr | Cu | Fe | K | Mg | Na | Zn |
| Raw | 13.04 | 280488 | 8.02 | 8.02 | 5.02 | 23.07 | 1719 | 1806 | 2075 | <0.01 |
| Calcined 800°C | 9.00 | 325921 | <0.10 | 1.00 | 4.00 | 9.00 | 2207 | 1763 | 2381 | 9.00 |
| Calcined 850°C | 30.03 | 327711 | <0.10 | 1.00 | 5.01 | 10.01 | 2006 | 1688 | 1944 | <0.01 |
| Calcined 900°C | 22.95 | 306806 | <0.10 | 1.00 | 4.99 | 9.98 | 1520 | 1506 | 1779 | <0.01 |

The following elements were below the detection limit: Cd (<0.05 mg/L), Mn (<0.0005 mg/L), Ni (<0.005 mg/L) and Pb (<0.01 mg/L).