Table S2. Major and trace elements of the JW gabbro

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sample | DL02(1)-1 | DL02(1)-2 | DL02(1)-3 | DL02(1)-4 | DL02(3)-1 | DL02(3)-2 | DL02(3)-3 |
| SiO2 | 48.87 | 48.78 | 49.07 | 49.28 | 49.19 | 49.37 | 49.41 |
| TiO2 | 1.37 | 1.36 | 1.37 | 1.36 | 1.37 | 1.36 | 1.36 |
| Al2O3 | 12.16 | 12.11 | 12.26 | 12.3 | 12.04 | 12.06 | 12.11 |
| FeOT | 10.68 | 10.8 | 10.6 | 10.58 | 10.5 | 10.48 | 10.47 |
| MnO | 0.158 | 0.162 | 0.159 | 0.158 | 0.157 | 0.159 | 0.158 |
| MgO | 9.64 | 9.68 | 9.64 | 9.59 | 9.82 | 9.8 | 9.78 |
| CaO | 11.09 | 11.12 | 11 | 10.94 | 11.46 | 11.47 | 11.43 |
| Na2O | 1.14 | 1.16 | 1.16 | 1.12 | 1.09 | 1.09 | 1.08 |
| K2O | 0.861 | 0.874 | 0.861 | 0.863 | 0.863 | 0.856 | 0.856 |
| P2O5 | 0.14 | 0.143 | 0.14 | 0.139 | 0.136 | 0.141 | 0.135 |
| LOI | 3.83 | 3.79 | 3.72 | 3.65 | 3.33 | 3.16 | 3.2 |
| Total | 99.939 | 99.979 | 99.98 | 99.98 | 99.956 | 99.946 | 99.989 |
| Mg# | 61.67 | 61.50 | 61.85 | 61.77 | 62.51 | 62.50 | 62.48 |
|  |  |  |  |  |  |  |  |
| V | 270 | 279 | 273 | 275 | 297 | 284 | 278 |
| Cr | 735 | 729 | 709 | 718 | 769 | 739 | 725 |
| Co | 47 | 48.6 | 48.9 | 47.1 | 53.8 | 53 | 52.8 |
| Ni | 184 | 185 | 186 | 178 | 186 | 179 | 179 |
| Cu | 61.8 | 61.9 | 62.4 | 60.6 | 71 | 68 | 67 |
| Zn | 86 | 88.4 | 86.5 | 86.8 | 88.8 | 84.4 | 85.6 |
| Ga | 16.2 | 16.1 | 16.2 | 16.2 | 17.2 | 16.6 | 16.2 |
| Rb | 34.8 | 33.9 | 32.7 | 33.3 | 34.6 | 33.4 | 33.3 |
| Sr | 688 | 699 | 668 | 668 | 749 | 724 | 728 |
| Y | 21.7 | 22.1 | 21.4 | 21.5 | 22.9 | 22.2 | 22.3 |
| Zr | 117 | 116 | 112 | 116 | 118 | 114 | 116 |
| Nb | 11.1 | 11.2 | 11 | 11.1 | 11.3 | 10.9 | 10.9 |
| Cs | 0.445 | 0.435 | 0.414 | 0.425 | 0.377 | 0.358 | 0.372 |
| Ba | 156 | 152 | 154 | 152 | 153 | 147 | 147 |
| La | 14.9 | 14.5 | 14.5 | 14.4 | 14.9 | 14.3 | 14.4 |
| Ce | 30.6 | 29.6 | 29.2 | 29.1 | 29.6 | 29 | 29.2 |
| Pr | 4.03 | 3.98 | 3.97 | 3.91 | 4.03 | 3.99 | 3.91 |
| Nd | 17.9 | 18.6 | 18.4 | 18.1 | 18.7 | 18.3 | 18.2 |
| Sm | 4.45 | 4.38 | 4.36 | 4.39 | 4.32 | 4.17 | 4.34 |
| Eu | 1.44 | 1.48 | 1.44 | 1.45 | 1.49 | 1.42 | 1.45 |
| Gd | 4.4 | 4.49 | 4.46 | 4.24 | 4.55 | 4.49 | 4.5 |
| Tb | 0.796 | 0.837 | 0.779 | 0.791 | 0.832 | 0.811 | 0.792 |
| Dy | 4.37 | 4.52 | 4.41 | 4.26 | 4.53 | 4.31 | 4.52 |
| Ho | 0.81 | 0.823 | 0.791 | 0.794 | 0.823 | 0.788 | 0.815 |
| Er | 2.3 | 2.34 | 2.28 | 2.22 | 2.32 | 2.25 | 2.24 |
| Tm | 0.347 | 0.359 | 0.344 | 0.339 | 0.347 | 0.343 | 0.353 |
| Yb | 2.14 | 2.17 | 2.15 | 2.05 | 2.13 | 2.1 | 2.11 |
| Lu | 0.302 | 0.318 | 0.299 | 0.296 | 0.302 | 0.288 | 0.303 |
| Hf | 3.66 | 3.68 | 3.75 | 3.58 | 3.54 | 3.59 | 3.52 |
| Ta | 0.742 | 0.743 | 0.76 | 0.725 | 0.726 | 0.723 | 0.711 |
| Pb | 6.24 | 5.62 | 7.58 | 7.96 | 5.09 | 5.45 | 4.98 |
| Th | 3 | 2.97 | 3 | 2.83 | 2.82 | 2.76 | 2.69 |
| U | 0.911 | 0.767 | 0.725 | 0.744 | 0.701 | 0.695 | 0.703 |

Mg#= molar 100·Mg2+/(Mg2++Fe2+t)= 100·(MgO\*/40.3044)/[(MgO\*/40.3044)+(FeOt\*/71.844)]. The MgO\* and FeOt\* are MgO and FeOt (in weight percent) divide the total solid content (i.e. Total minus LOI values), respectively.