**МЕТАГАББРО-ДОЛЕРИТЫ ЦЕНТРАЛЬНОЙ ЧАСТИ КАРСКОЙ ДЕПРЕССИИ (НЕНЕЦКИЙ АВТОНОМНЫЙ ОКРУГ, РОССИЯ): ВЛИЯНИЕ ИМПАКТНОГО СОБЫТИЯ И U-Pb** **(LA-ICP-MS) ВОЗРАСТ**

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Электронное приложение

Редкие, рассеянные и редкоземельные элементы в габбро-долеритах (ICP-MS), ppm

|  |  |  |
| --- | --- | --- |
| Элемент | Кварцевые метагаббро-долериты | Метагаббро-долериты |
| 1 | ±U | 2 | ±U | 3 | ±U | 4 | ±U | 5 | ±U | 6 | ±U | 7 | ±U | 8 | ±U | 9 | ±U | 10 | ±U |
| Rb | 14 | 4.1 | 4.9 | 1.5 | 4.9 | 1.5 | 30 | 9.0 | 22 | 6.6 | 3.4 | 1.0 | 6.5 | 2.0 | 7.4 | 2.2 | 1.0 | 0.3 | 8.2 | 2.4 |
| Y | 16 | 4.7 | 14 | 4.3 | 33 | 10 | 30 | 9.0 | 19 | 5.7 | 16 | 4.9 | 11 | 3.2 | 11 | 3.4 | 11 | 3.4 | 9.5 | 2.9 |
| Zr | 28 | 7.6 | 38 | 10 | 83 | 20 | 64 | 15 | 56 | 13 | 62 | 15 | 35 | 9.4 | 35 | 9.6 | 28 | 7.6 | 21 | 5.5 |
| Nb | 4.0 | 1.2 | 3.5 | 1.0 | 12 | 3.5 | 8.3 | 2.5 | 5.6 | 1.7 | 4.8 | 1.4 | 3.2 | 0.9 | 3.4 | 1.0 | 3.3 | 1.0 | 2.3 | 0.7 |
| Ba | 120 | 36 | 33 | 10 | 258 | 72 | 450 | 126 | 150 | 45 | 42 | 13 | 62 | 19 | 86 | 26 | 42 | 13 | 91 | 27 |
| La | 5.3 | 1.6 | 5.7 | 1.7 | 16 | 4.7 | 14 | 4.2 | 7.8 | 2.3 | 5.1 | 1.5 | 3.7 | 1.1 | 4.2 | 1.2 | 4.1 | 1.2 | 3.2 | 1.0 |
| Ce | 13 | 4.0 | 13 | 3.8 | 37 | 11 | 32 | 9.5 | 19 | 5.7 | 14 | 4.1 | 9.5 | 2.8 | 10.0 | 3.0 | 11 | 3.2 | 7.8 | 2.3 |
| Pr | 1.9 | 0.6 | 1.8 | 0.5 | 5.0 | 1.5 | 4.3 | 1.3 | 2.5 | 0.8 | 1.9 | 0.6 | 1.3 | 0.4 | 1.4 | 0.4 | 1.4 | 0.4 | 1.1 | 0.3 |
| Nd | 8.7 | 2.6 | 8.3 | 2.5 | 23 | 6.8 | 19 | 5.8 | 12 | 3.5 | 8.8 | 2.6 | 6.1 | 1.8 | 6.7 | 2.0 | 6.8 | 2.0 | 5.1 | 1.5 |
| Sm | 2.5 | 0.8 | 2.3 | 0.7 | 6.1 | 1.8 | 5.3 | 1.6 | 3.3 | 1.0 | 2.6 | 0.8 | 1.8 | 0.5 | 2.0 | 0.6 | 1.9 | 0.6 | 1.5 | 0.5 |
| Eu | 1.0 | 0.3 | 0.88 | 0.26 | 2.6 | 0.8 | 2.2 | 0.7 | 1.3 | 0.4 | 0.80 | 0.24 | 0.70 | 0.21 | 0.82 | 0.25 | 0.77 | 0.23 | 0.74 | 0.22 |
| Gd | 3.2 | 0.9 | 2.9 | 0.9 | 7.4 | 2.2 | 6.5 | 1.9 | 4.0 | 1.2 | 3.3 | 1.0 | 2.2 | 0.7 | 2.4 | 0.7 | 2.5 | 0.7 | 1.9 | 0.6 |
| Tb | 0.52 | 0.16 | 0.47 | 0.14 | 1.1 | 0.3 | 1.0 | 0.3 | 0.64 | 0.19 | 0.54 | 0.16 | 0.36 | 0.11 | 0.40 | 0.12 | 0.40 | 0.12 | 0.32 | 0.10 |
| Dy | 3.2 | 1.0 | 2.9 | 0.9 | 6.7 | 2.0 | 6.1 | 1.8 | 3.8 | 1.2 | 3.3 | 1.0 | 2.2 | 0.7 | 2.5 | 0.7 | 2.4 | 0.7 | 2.0 | 0.6 |
| Ho | 0.64 | 0.19 | 0.58 | 0.17 | 1.3 | 0.4 | 1.2 | 0.4 | 0.77 | 0.23 | 0.67 | 0.20 | 0.45 | 0.14 | 0.49 | 0.15 | 0.49 | 0.15 | 0.40 | 0.12 |
| Er | 1.8 | 0.5 | 1.6 | 0.5 | 3.8 | 1.1 | 3.3 | 1.0 | 2.2 | 0.6 | 1.9 | 0.6 | 1.2 | 0.4 | 1.4 | 0.4 | 1.4 | 0.4 | 1.1 | 0.3 |
| Tm | 0.24 | 0.07 | 0.22 | 0.07 | 0.51 | 0.15 | 0.45 | 0.13 | 0.29 | 0.09 | 0.27 | 0.08 | 0.17 | 0.05 | 0.19 | 0.06 | 0.18 | 0.05 | 0.15 | 0.05 |
| Yb | 1.5 | 0.5 | 1.4 | 0.4 | 3.2 | 1.0 | 2.7 | 0.8 | 1.8 | 0.5 | 1.7 | 0.5 | 1.1 | 0.3 | 1.1 | 0.3 | 1.1 | 0.3 | 0.97 | 0.29 |
| Lu | 0.23 | 0.07 | 0.21 | 0.06 | 0.48 | 0.14 | 0.40 | 0.12 | 0.27 | 0.08 | 0.26 | 0.08 | 0.16 | 0.05 | 0.17 | 0.05 | 0.17 | 0.05 | 0.14 | 0.04 |
| Hf | 0.24 | 0.07 | 0.22 | 0.07 | 0.74 | 0.22 | 0.54 | 0.16 | 0.36 | 0.11 | 1.8 | 0.5 | 1.1 | 0.3 | 1.1 | 0.3 | 0.98 | 0.29 | 0.74 | 0.22 |
| Ta | 1.0 | 0.3 | 1.2 | 0.4 | 2.6 | 0.8 | 2.1 | 0.6 | 1.6 | 0.5 | 0.29 | 0.09 | 0.19 | 0.06 | 0.21 | 0.06 | 0.20 | 0.06 | 0.13 | 0.04 |
| Th | 1.1 | 0.3 | 1.1 | 0.3 | 3.4 | 1.0 | 2.9 | 0.9 | 1.9 | 0.6 | 1.6 | 0.5 | 0.89 | 0.27 | 0.89 | 0.27 | 0.85 | 0.26 | 0.63 | 0.19 |

Примечание: U – неопределенность