

**Table 1.**

Ar/Ar data and constants used in age calculations.

|                    |       |                  |                       |         |                       |         |                  |                       |                  |         |                  |                                 |                     |  |          |          |       |      |  |  |
|--------------------|-------|------------------|-----------------------|---------|-----------------------|---------|------------------|-----------------------|------------------|---------|------------------|---------------------------------|---------------------|--|----------|----------|-------|------|--|--|
| Sample: NM-791     |       |                  |                       |         | Lab #: 61311          |         |                  | J: 4.84E-03 ±8.08E-07 |                  |         |                  | IC <sup>1</sup> : 1.000 ±0.0000 |                     |  |          |          |       |      |  |  |
| Material: Sanidine |       |                  |                       |         | IGSN:                 |         |                  |                       |                  |         |                  |                                 |                     |  |          |          |       |      |  |  |
| N                  | Power | <sup>40</sup> Ar | <sup>40</sup> Ar      | ± 1σ    | <sup>39</sup> Ar      | ± 1σ    | <sup>38</sup> Ar | ± 1σ                  | <sup>37</sup> Ar | ± 1σ    | <sup>36</sup> Ar | ± 1σ                            | % <sup>40</sup> Ar* | <sup>40</sup> Ar*/ <sup>39</sup> Ar <sub>K</sub> | Age      | ± 1σ     | K/Ca  | ± 1σ |  |  |
|                    | (%)   |                  | (10 <sup>-3</sup> fA) |         | (10 <sup>-3</sup> fA) |         |                  |                       |                  |         |                  | (10 <sup>-2</sup> fA)           |                     |  | (Ma)     |          |       |      |  |  |
| 01                 | ---   | 0.00100          | 0.44873               | 0.13066 | 0.13846               | 0.04379 | 1.74974          | 0.02651               | 0.36663          | 0.02338 | 0.00181          | 0.04423                         | 99.6                | 3.22815  | 27.99    | 0.0152   | 72.88 | 4.65 |  |  |
|                    |       |                  | 0.00153               | 0.12000 | 2.86E-05              | 0.02700 | -0.00080         | 0.01900               | 0.02530          | 0.01500 | 0.58550          | 0.00037                         |                     |  |          |          |       |      |  |  |
| Weighted Mean Age  |       |                  |                       |         |                       |         |                  |                       |                  |         |                  |                                 |                     |  | 27.98830 | ±0.01524 |       |      |  |  |

IC Factor<sup>1</sup>: H1/CDD intercalibration

**Constants used**

**Atmospheric argon ratios**

|  |            |             |
|--|------------|-------------|
| ( <sup>40</sup> Ar/ <sup>36</sup> Ar) <sub>A</sub> | 295.5 ±0.5 | Nier (1950) |
| ( <sup>40</sup> Ar/ <sup>36</sup> Ar) <sub>A</sub> | 295.5 ±0.5 | Nier (1950) |
| ( <sup>40</sup> Ar/ <sup>38</sup> Ar) <sub>A</sub> | 0.188 ±0.5 | Nier (1950) |
| ( <sup>40</sup> Ar/ <sup>38</sup> Ar) <sub>A</sub> | 0.188 ±0.5 | Nier (1950) |

**Interferring isotope production ratios**

|   |            |             |
|---|------------|-------------|
| ( <sup>40</sup> Ar/ <sup>39</sup> Ar) <sub>K</sub>  | 295.5 ±0.5 | Nier (1950) |
| ( <sup>38</sup> Ar/ <sup>39</sup> Ar) <sub>K</sub>  | 0.188 ±0.5 | Nier (1950) |
| ( <sup>37</sup> Ar/ <sup>39</sup> Ar) <sub>K</sub>  | 0.188 ±0.5 | Nier (1950) |
| ( <sup>39</sup> Ar/ <sup>37</sup> Ar) <sub>Ca</sub> | 295.5 ±0.5 | Nier (1950) |
| ( <sup>38</sup> Ar/ <sup>37</sup> Ar) <sub>Ca</sub> | 0.188 ±0.5 | Nier (1950) |
| ( <sup>36</sup> Ar/ <sup>37</sup> Ar) <sub>Ca</sub> | 0.188 ±0.5 | Nier (1950) |

**Decay constants**

|                                |                      |            |
|--------------------------------|----------------------|------------|
| <sup>40</sup> K λ <sub>ε</sub> | 1 ±0 a <sup>-1</sup> | Foo (1990) |
| <sup>40</sup> K λ <sub>β</sub> | 1 ±0 a <sup>-1</sup> | Foo (1990) |
| <sup>39</sup> Ar               | 1 ±0 a <sup>-1</sup> | Foo (1990) |
| <sup>37</sup> Ar               | 1 ±0 a <sup>-1</sup> | Foo (1990) |