

<sup>42</sup>Ca(<sup>16</sup>O,<sup>14</sup>C)    [1976Ei02](#)

| Type            | Author                    | Citation         | Literature Cutoff Date |
|-----------------|---------------------------|------------------|------------------------|
| Full Evaluation | Jun Chen and Balraj Singh | NDS 190,1 (2023) | 20-Jun-2023            |

[1976Ei02](#): E=56 MeV <sup>16</sup>O beam produced at Argonne National Laboratory. Targets of 150-200 μg/cm<sup>2</sup> enriched <sup>42</sup>Ca. A ΔE-E time-of-flight telescope. Measured σ(θ). Deduced levels, J<sup>π</sup>, L, spectroscopic factors from DWBA analysis.

<sup>44</sup>Ti Levels

| E(level) | J <sup>π</sup>                 | L   | S <sup>†</sup> | Comments                              |
|----------|--------------------------------|-----|----------------|---------------------------------------|
| 0        | 0 <sup>+</sup>                 | 0   | 1              |                                       |
| 1080 50  | 2 <sup>+</sup>                 | 2   | 0.39 5         |                                       |
| 2500 50  | 2 <sup>+</sup> &4 <sup>+</sup> | 2+4 |                | E(level): doublet, fitted with L=2,4. |
| 3360 50  | 4 <sup>+</sup>                 | 4   |                |                                       |
| 3980 50  |                                | 4+6 |                |                                       |

<sup>†</sup> Relative to 1 for ground state ([1976Ei02](#)).