

$^{58}\text{Ni}(\text{p},\alpha),(\text{pol p},\alpha)$  1974Go01,1974Go31

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

**1974Go01:** E=12-16 MeV; enriched (99.9%) targets (carbon backings); analyzed momentum of products with 100-cm broad-range magnetic spectrograph and nuclear track plates; measured  $\sigma(\text{E}; \text{E}\alpha, \theta)$ .

**1974Go31:** recalculated excitation energies in  $^{55}\text{Co}$ , and eliminated a systematic error in **1974Go01**.

**1979Sm03:** E=30 MeV; enriched (>98%) self-supporting targets;  $\Delta\text{E-E}$  counter telescopes (FWHM: 45 keV); measured  $\sigma(\theta)$ ; zero-range DWBA analyses.

**1980Ta06:** E=22 MeV; polarized (85%) beam; enriched (98%) targets (self-supporting); Enge split-pole spectrograph with 5-cm-long Si position-sensitive detectors, FWHM=50-60 keV; measured analyzing powers and  $\sigma(\text{E}(\text{p}); \text{E}\alpha, \theta)$ ; zero-range DWBA analyses.

See also **1962Sh29**, **1963Ku13**, **1964Ve02**, **1976JoZO**, and **1978Jo08**.

 $^{55}\text{Co}$  Levels

$\Delta\text{E}$ : Systematic uncertainty has been eliminated by authors.

E(level) <sup>†</sup>	J <sup>π</sup> #	E(level) <sup>†</sup>	E(level) <sup>†</sup>	E(level) <sup>†</sup>
0.0		4514.0 <i>15</i>	5291.0 <i>16</i>	6062.6 <i>17</i>
2164.6 <i>9</i>		4537.0 <i>14</i>	5309.5 <i>18</i>	6073.7 <i>18</i>
2564.5 <i>11</i>		4547.3 <i>14</i>	5349.8 <i>17</i>	6093.5 <i>17</i>
2658.3 <i>10</i>		4586.1 <i>14</i>	5365.0 <i>17</i>	6126.6 <i>19</i>
2918.9 <i>11</i>		4627.2 <i>14</i>	5426.6 <i>18</i>	6144.5 <i>19</i>
2925 <sup>@</sup> <i>10</i>	1/2 <sup>+</sup>	4685.7 <i>15</i>	5459.3 <i>15</i>	6167.1 <i>18</i>
2937.8 <i>12</i>		4715.4 <i>15</i>	5483.8 <i>17</i>	6203.7 <i>18</i>
2978 <sup>&amp;</sup> <i>4</i>	(9/2 <sup>-</sup> )	4723.8 <i>17</i>	5526.1 <i>16</i>	6217.7 <i>21</i>
3301.8 <i>11</i>		4747.1 <i>15</i>	5541.1 <i>17</i>	6250.1 <i>19</i>
3562.8 <i>11</i>	3/2 <sup>+</sup>	4851.2 <i>14</i>	5556.8 <i>16</i>	6263.1 <i>21</i>
3641.5 <i>12</i>		4869.4 <i>15</i>	5641.9 <i>17</i>	6325.5 <i>19</i>
3724.4 <i>13</i>		4882.5 <i>15</i>	5672.7 <i>16</i>	6340.9 <i>20</i>
3735.9 <i>13</i>		4903.5 <sup>a</sup> <i>15</i>	5697.2 <i>17</i>	6361.3 <i>20</i>
3773.2 <i>12</i>		4961.9 <i>15</i>	5713.4 <i>16</i>	6376.7 <i>24</i>
3857.8 <i>12</i>		4987.6 <i>15</i>	5743.0 <i>16</i>	6404.7 <i>20</i>
3940.8 <i>13</i>		5064.8 <i>15</i>	5763.8 <i>17</i>	6426.3 <i>20</i>
4163.9 <i>13</i>		5081.0 <i>16</i>	5781.5 <i>16</i>	6446.6 <sup>c</sup> <i>19</i>
4176.6 <i>13</i>		5098.3 <i>15</i>	5860 <sup>b</sup>	6508.2 <sup>d</sup> <i>19</i>
4262.8 <i>13</i>		5120.0 <i>15</i>	5933.3 <i>17</i>	6541.1 <i>21</i>
4325.3 <i>13</i>		5172.0 <i>15</i>	5959.7 <i>17</i>	6576.3 <i>20</i>
4339.3 <i>13</i>		5188.8 <i>15</i>	5985.8 <i>17</i>	6603.4 <sup>e</sup> <i>19</i>
4471.5 <i>13</i>		5256.8 <i>21</i>	6007.4 <i>17</i>	6652.2 <i>19</i>
4490.6 <i>13</i>		5267.9 <i>16</i>	6035.4 <i>17</i>	

<sup>†</sup> From **1974Go31**, except as noted.

<sup>‡</sup> Systematic uncertainty has been eliminated by authors.

# From **1980Ta06** based on  $\sigma(\theta)$  and analyzing power.

@ From **1980Ta06**.

& Average of 2974 in **1974Go31** and 2982 in **1980Ta06**.

<sup>a</sup> Possible doublet; the other: 4920.

<sup>b</sup> Possible triplet; the others: 5850 and 5872.

<sup>c</sup> Possible doublet; the other: 6486.

<sup>d</sup> Possible doublet; the other: 6531.

<sup>e</sup> Possible doublet; the other: 6627.