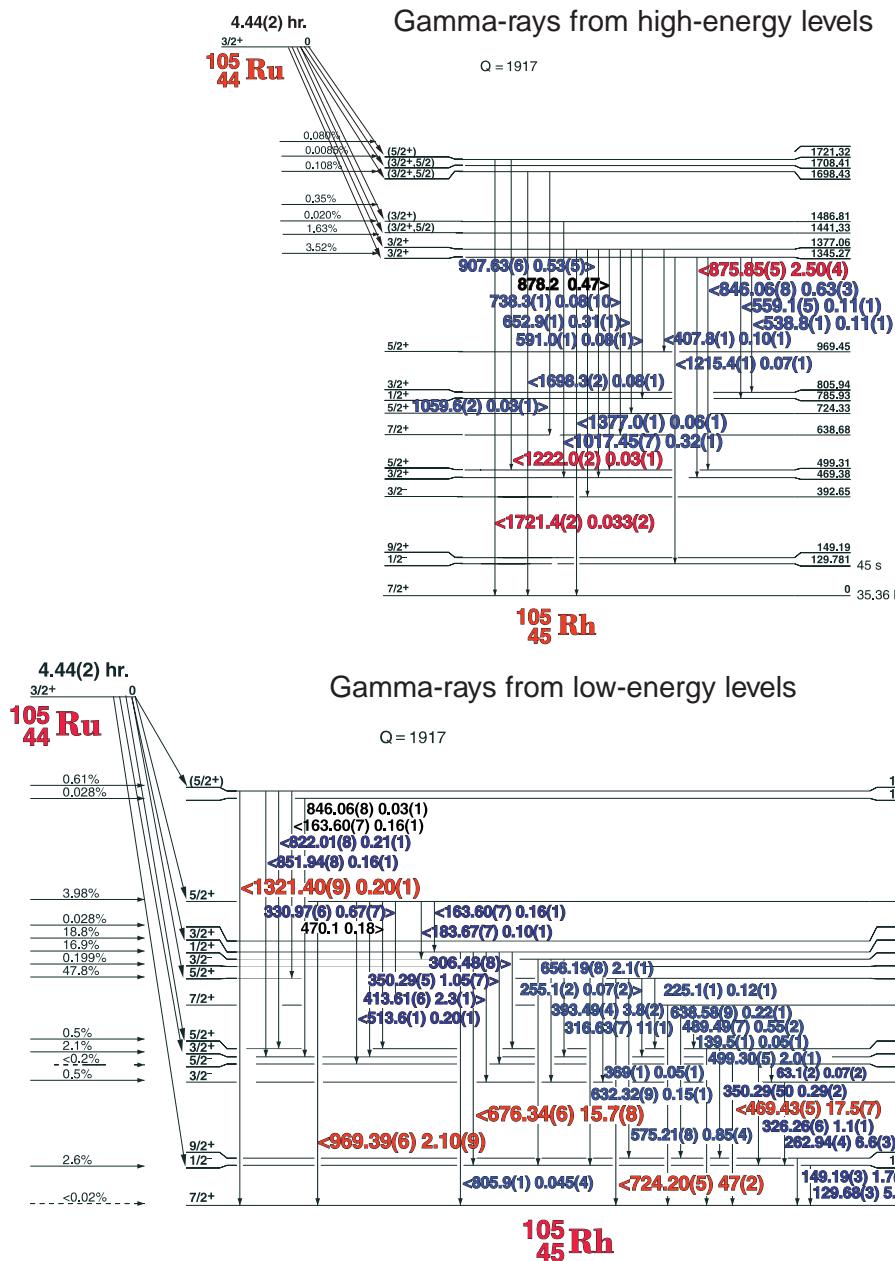


## 4.44(2) hr. $^{105}\text{Ru}$ Decay Scheme



44-105-1

### GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide       $^{75}\text{Ge}$       Half Life      82.78(4) min.  
Detector      3" x 3" -2 NaI      Method of Production:  $\text{Ge}^{74}(n,\gamma)$

$E_{\gamma}$ (KeV)[S]	$\Delta E_{\gamma}$	$I_{\gamma}$ (rel)	$I_{\gamma}(\%)$ [E]	$\Delta I_{\gamma}$	S
63.15	$\pm 0.10$		0.07	$\pm 0.02$	4
87.64	$\pm 0.20$	0.010		$\pm 0.005$	4
103.42	$\pm 0.07$	0.13		$\pm 0.01$	4
<b>129.68</b>	<b><math>\pm 0.03</math></b>	<b>11.1</b>	<b>5.7</b>	<b><math>\pm 0.2</math></b>	<b>2</b>
139.50	$\pm 0.10$	0.030	0.05	$\pm 0.01$	4
149.19	$\pm 0.03$	3.4	1.7	$\pm 0.1$	3
163.60	$\pm 0.07$	0.37	0.16	$\pm 0.01$	4
183.67	$\pm 0.07$	0.25	0.20	$\pm 0.01$	4
225.15	$\pm 0.10$	0.41	0.12	$\pm 0.01$	4
255.14	$\pm 0.20$	0.17	0.12	$\pm 0.01$	4

Decay Data

## GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide      **<sup>105</sup>Ru**      Half Life      4.44(2) hr.  
 Detector      3" x 3" -2 NaI      Method of Production: <sup>104</sup>Ru(n,γ)

	E <sub>γ</sub> (KeV)[S]	ΔE <sub>γ</sub>	I <sub>γ</sub> (rel)	I <sub>γ</sub> (%)[E]	ΔI <sub>γ</sub>	S
<sup>105</sup> Rh	<b>262.94</b>	<b>± 0.04</b>	<b>14.4</b>	<b>8.6</b>	<b>± 0.3</b>	<b>2</b>
	306.48	± 0.05				
<sup>105</sup> Rh	<b>316.63</b>	<b>± 0.07</b>	<b>25.0</b>	<b>11</b>	<b>± 1.0</b>	<b>2</b>
	319.27	± 0.07				
	326.26	± 0.06	2.7	1.1	± 0.1	3
	330.97	± 0.06	1.6	0.67	± 0.7	4
	350.29	± 0.05	2.9	1.05	± 0.07	3
	369.0	± 1.0	w	0.05	± 0.01	4
	393.49	± 0.04	8.1	3.8	± 0.2	3
	407.76	± 0.10	0.37	0.10	± 0.01	4
	413.61	± 0.05	4.8	2.3	± 0.1	3
	<b>469.43</b>	<b>± 0.05</b>	<b>37.0</b>	<b>17.5</b>	<b>± 0.7</b>	<b>1</b>
	489.49	± 0.07	1.3	0.55	± 0.02	4
	499.30	± 0.05	5.1	2.0	± 0.1	3
	513.59	± 0.10	0.60	0.30	± 0.01	4
	538.81	± 0.10	1.5	0.61	± 0.01	4
	559.0	± 0.5	0.63	0.25	± 0.01	4
	575.21	± 0.08	2.40	1.1	± 0.1	3
	591.0	± 0.1	0.54	0.20	± 0.01	4
	620.8	± 0.2	0.20		± 0.03	4
	632.32	± 0.09	0.43	0.15	± 0.03	4
	638.58	± 0.09	0.60	0.30	± 0.02	4
	652.9	± 0.1	0.7	0.31	± 0.01	4
	<b>656.19</b>	<b>± 0.08</b>	<b>4.9</b>	<b>2.1</b>	<b>± 0.1</b>	<b>2</b>
	<b>676.34</b>	<b>± 0.06</b>	<b>33.1</b>	<b>15.7</b>	<b>± 0.8</b>	<b>1</b>
	<b>724.20</b>	<b>± 0.05</b>	<b>100</b>	<b>47</b>	<b>± 2.0</b>	<b>1</b>
	738.29	± 0.10	0.28	0.09	± 0.01	4
	785.77	± 0.08	0.46		± 0.03	3
	805.94	± 0.10	0.16	0.65	± 0.06	4
	822.01	± 0.08	0.51	0.21	± 0.01	3
	<b>846.06</b>	<b>± 0.08</b>	<b>1.9</b>	<b>0.8</b>	<b>± 0.1</b>	<b>2</b>
	851.94	± 0.08	0.39	0.16	± 0.01	3
	<b>875.85</b>	<b>± 0.05</b>	<b>6.4</b>	<b>2.50</b>	<b>± 0.09</b>	<b>1</b>
	<b>907.63</b>	<b>± 0.06</b>	<b>1.17</b>	<b>0.53</b>	<b>± 0.05</b>	<b>1</b>
	953.0	± 0.5	0.08	0.04	± 0.01	4
	<b>969.39</b>	<b>± 0.06</b>	<b>4.6</b>	<b>2.10</b>	<b>± 0.09</b>	<b>1</b>
	<b>1017.45</b>	<b>± 0.07</b>	<b>0.70</b>	<b>0.32</b>	<b>± 0.02</b>	<b>2</b>
	1059.65	± 0.20	0.06	0.03	± 0.01	4
	1215.37	± 0.10	0.15	0.07	± 0.01	3
	1221.99	± 0.20	0.06	0.03	± 0.01	3
	<b>1321.40</b>	<b>± 0.09</b>	<b>0.45</b>	<b>0.20</b>	<b>± 0.01</b>	<b>1</b>
	<b>1376.99</b>	<b>± 0.15</b>	<b>0.12</b>	<b>0.06</b>	<b>± 0.01</b>	<b>2</b>
	<b>1698.3</b>	<b>± 0.2</b>	<b>0.17</b>	<b>0.08</b>	<b>± 0.01</b>	<b>1</b>
	<b>1721.4</b>	<b>± 0.2</b>	<b>0.07</b>	<b>0.033</b>	<b>± 0.01</b>	<b>1</b>