

# Kinematics Tables

27Al3Hep29Si in Aluminium				27Al3Hep29Si2nd in Aluminium			
Q-value 12.34, E = 18.00, Ex = 0.00				Q-value 12.34, E = 18.00, Ex = 2.03			
deg	total energy	E - dE	dE	deg	total energy	E - dE	dE
20.9	2.9609e+01	2.9526e+01	8.2876e-02	20.9	2.7560e+01	2.7472e+01	8.8028e-02
25.9	2.9512e+01	2.9429e+01	8.3105e-02	25.9	2.7466e+01	2.7378e+01	8.8281e-02
30.9	2.9396e+01	2.9313e+01	8.3381e-02	30.9	2.7354e+01	2.7265e+01	8.8585e-02
35.9	2.9262e+01	2.9179e+01	8.3702e-02	35.9	2.7224e+01	2.7136e+01	8.8938e-02
40.9	2.9112e+01	2.9027e+01	8.4067e-02	40.9	2.7079e+01	2.6989e+01	8.9340e-02
45.9	2.8945e+01	2.8861e+01	8.4473e-02	45.9	2.6918e+01	2.6828e+01	8.9788e-02
50.9	2.8765e+01	2.8680e+01	8.4919e-02	50.9	2.6743e+01	2.6652e+01	9.0281e-02
55.9	2.8571e+01	2.8485e+01	8.5404e-02	55.9	2.6555e+01	2.6464e+01	9.0816e-02
60.9	2.8226e+01	2.8140e+01	8.6280e-02	60.9	2.6218e+01	2.6126e+01	9.1793e-02

27Al3Hep29Si1st in Aluminium				27Al3Hep29Si3rd in Aluminium			
Q-value 12.34, E = 18.00, Ex = 1.27				Q-value 12.34, E = 18.00, Ex = 2.43			
deg	total energy	E - dE	dE	deg	total energy	E - dE	dE
20.9	2.8323e+01	2.8237e+01	8.6031e-02	20.9	2.7158e+01	2.7069e+01	8.9122e-02
25.9	2.8228e+01	2.8142e+01	8.6275e-02	25.9	2.7065e+01	2.6975e+01	8.9379e-02
30.9	2.8114e+01	2.8028e+01	8.6568e-02	30.9	2.6953e+01	2.6863e+01	8.9689e-02
35.9	2.7983e+01	2.7896e+01	8.6909e-02	35.9	2.6824e+01	2.6734e+01	9.0050e-02
40.9	2.7836e+01	2.7748e+01	8.7296e-02	40.9	2.6680e+01	2.6589e+01	9.0460e-02
45.9	2.7673e+01	2.7585e+01	8.7727e-02	45.9	2.6520e+01	2.6429e+01	9.0917e-02
50.9	2.7495e+01	2.7407e+01	8.8202e-02	50.9	2.6346e+01	2.6254e+01	9.1420e-02
55.9	2.7305e+01	2.7217e+01	8.8717e-02	55.9	2.6159e+01	2.6067e+01	9.1966e-02
60.9	2.6966e+01	2.6876e+01	8.9654e-02	60.9	2.5824e+01	2.5731e+01	9.2965e-02

27Al3Hed28Si in Aluminium			
Q-value 6.09, E = 18.00, Ex = 0.00			
deg	total energy	E - dE	dE
20.9	2.3380e+01	2.3202e+01	1.7825e-01
25.9	2.3254e+01	2.3075e+01	1.7903e-01
30.9	2.3103e+01	2.2923e+01	1.7997e-01
35.9	2.2929e+01	2.2748e+01	1.8107e-01
40.9	2.2734e+01	2.2552e+01	1.8233e-01
45.9	2.2519e+01	2.2335e+01	1.8374e-01
50.9	2.2285e+01	2.2099e+01	1.8530e-01
55.9	2.2033e+01	2.1846e+01	1.8700e-01
60.9	2.1653e+01	2.1464e+01	1.8964e-01

27Al3Hed28Si2nd in Aluminium			
Q-value 6.09, E = 18.00, Ex = 4.62			
deg	total energy	E - dE	dE
20.9	1.8735e+01	1.8522e+01	2.1305e-01
25.9	1.8620e+01	1.8406e+01	2.1410e-01
30.9	1.8483e+01	1.8268e+01	2.1538e-01
35.9	1.8325e+01	1.8108e+01	2.1686e-01
40.9	1.8147e+01	1.7929e+01	2.1856e-01
45.9	1.7951e+01	1.7731e+01	2.2047e-01
50.9	1.7738e+01	1.7515e+01	2.2259e-01
55.9	1.7508e+01	1.7283e+01	2.2492e-01
60.9	1.7159e+01	1.6930e+01	2.2857e-01

27Al3Hed28Si1st in Aluminium			
Q-value 6.09, E = 18.00, Ex = 1.78			
deg	total energy	E - dE	dE
20.9	2.1596e+01	2.1406e+01	1.9005e-01
25.9	2.1474e+01	2.1283e+01	1.9092e-01
30.9	2.1328e+01	2.1136e+01	1.9197e-01
35.9	2.1160e+01	2.0967e+01	1.9320e-01
40.9	2.0971e+01	2.0777e+01	1.9460e-01
45.9	2.0763e+01	2.0567e+01	1.9617e-01
50.9	2.0537e+01	2.0339e+01	1.9790e-01
55.9	2.0294e+01	2.0094e+01	1.9981e-01
60.9	1.9925e+01	1.9722e+01	2.0278e-01

27Al3Het27Si in Aluminium			
Q-value -4.83, E = 18.00, Ex = 0.00			
deg	total energy	E - dE	dE
20.9	1.2355e+01	1.1950e+01	4.0460e-01
25.9	1.2232e+01	1.1825e+01	4.0771e-01
30.9	1.2087e+01	1.1675e+01	4.1149e-01
35.9	1.1919e+01	1.1503e+01	4.1594e-01
40.9	1.1729e+01	1.1308e+01	4.2108e-01
45.9	1.1520e+01	1.1094e+01	4.2693e-01
50.9	1.1292e+01	1.0859e+01	4.3354e-01
55.9	1.1045e+01	1.0604e+01	4.4096e-01
60.9	1.0726e+01	1.0275e+01	4.5097e-01

27Al3Het27Si1st in Aluminium			
Q-value -4.83, E = 18.00, Ex = 0.78			
deg	total energy	E - dE	dE
20.9	1.1555e+01	1.1129e+01	4.2594e-01
25.9	1.1436e+01	1.1007e+01	4.2935e-01
30.9	1.1294e+01	1.0860e+01	4.3349e-01
35.9	1.1130e+01	1.0691e+01	4.3839e-01
40.9	1.0945e+01	1.0501e+01	4.4405e-01
45.9	1.0741e+01	1.0290e+01	4.5050e-01
50.9	1.0517e+01	1.0059e+01	4.5780e-01
55.9	1.0275e+01	9.8086e+00	4.6604e-01
60.9	9.9655e+00	9.4884e+00	4.7705e-01

27Al3He3He27Al in Aluminium			
Q-value 0.00, E = 18.00, Ex = 0.00			
deg	total energy	E - dE	dE
20.9	1.6891e+01	1.5591e+01	1.2994e+00
25.9	1.6736e+01	1.5427e+01	1.3092e+00
30.9	1.6551e+01	1.5229e+01	1.3213e+00
35.9	1.6334e+01	1.4999e+01	1.3357e+00
40.9	1.6087e+01	1.4734e+01	1.3526e+00
45.9	1.5807e+01	1.4435e+01	1.3722e+00
50.9	1.5494e+01	1.4099e+01	1.3951e+00
55.9	1.5141e+01	1.3719e+01	1.4219e+00
60.9	1.4915e+01	1.3475e+01	1.4397e+00

27Al3Het27Si2nd in Aluminium			
Q-value -4.83, E = 18.00, Ex = 0.96			
deg	total energy	E - dE	dE
20.9	1.1374e+01	1.0943e+01	4.3114e-01
25.9	1.1255e+01	1.0821e+01	4.3462e-01
30.9	1.1114e+01	1.0675e+01	4.3886e-01
35.9	1.0951e+01	1.0507e+01	4.4386e-01
40.9	1.0767e+01	1.0317e+01	4.4965e-01
45.9	1.0564e+01	1.0107e+01	4.5626e-01
50.9	1.0342e+01	9.8778e+00	4.6374e-01
55.9	1.0100e+01	9.6278e+00	4.7219e-01
60.9	9.7932e+00	9.3098e+00	4.8344e-01

27Al3He3He27Al1st in Aluminium			
Q-value 0.00, E = 18.00, Ex = 0.85			
deg	total energy	E - dE	dE
20.9	1.6030e+01	1.4673e+01	1.3565e+00
25.9	1.5877e+01	1.4510e+01	1.3672e+00
30.9	1.5694e+01	1.4314e+01	1.3804e+00
35.9	1.5480e+01	1.4084e+01	1.3961e+00
40.9	1.5235e+01	1.3821e+01	1.4146e+00
45.9	1.4958e+01	1.3522e+01	1.4362e+00
50.9	1.4647e+01	1.3186e+01	1.4615e+00
55.9	1.4295e+01	1.2804e+01	1.4913e+00
60.9	1.4084e+01	1.2574e+01	1.5098e+00

27Al3He3He27Al2nd in Aluminium				27Al3He3He27Al4th in Aluminium			
Q-value 0.00, E = 18.00, Ex = 1.01				Q-value 0.00, E = 18.00, Ex = 2.73			
deg	total energy	E - dE	dE	deg	total energy	E - dE	dE
20.9	1.5860e+01	1.4491e+01	1.3685e+00	20.9	1.4097e+01	1.2588e+01	1.5087e+00
25.9	1.5708e+01	1.4328e+01	1.3794e+00	25.9	1.3949e+01	1.2427e+01	1.5220e+00
30.9	1.5525e+01	1.4132e+01	1.3928e+00	30.9	1.3771e+01	1.2233e+01	1.5383e+00
35.9	1.5312e+01	1.3903e+01	1.4088e+00	35.9	1.3563e+01	1.2005e+01	1.5581e+00
40.9	1.5067e+01	1.3640e+01	1.4277e+00	40.9	1.3323e+01	1.1742e+01	1.5814e+00
45.9	1.4791e+01	1.3341e+01	1.4497e+00	45.9	1.3051e+01	1.1442e+01	1.6090e+00
50.9	1.4480e+01	1.3004e+01	1.4755e+00	50.9	1.2744e+01	1.1102e+01	1.6416e+00
55.9	1.4128e+01	1.2622e+01	1.5059e+00	55.9	1.2393e+01	1.0712e+01	1.6806e+00
60.9	1.3920e+01	1.2395e+01	1.5246e+00	60.9	1.2219e+01	1.0518e+01	1.7008e+00

27Al3He3He27Al3rd in Aluminium				27Al3He3He27Al5th in Aluminium			
Q-value 0.00, E = 18.00, Ex = 2.21				Q-value 0.00, E = 18.00, Ex = 2.98			
deg	total energy	E - dE	dE	deg	total energy	E - dE	dE
20.9	1.4636e+01	1.3173e+01	1.4624e+00	20.9	1.3842e+01	1.2310e+01	1.5318e+00
25.9	1.4487e+01	1.3012e+01	1.4749e+00	25.9	1.3695e+01	1.2150e+01	1.5455e+00
30.9	1.4307e+01	1.2817e+01	1.4902e+00	30.9	1.3518e+01	1.1955e+01	1.5624e+00
35.9	1.4097e+01	1.2589e+01	1.5087e+00	35.9	1.3310e+01	1.1727e+01	1.5828e+00
40.9	1.3856e+01	1.2326e+01	1.5305e+00	40.9	1.3071e+01	1.1464e+01	1.6070e+00
45.9	1.3583e+01	1.2027e+01	1.5561e+00	45.9	1.2800e+01	1.1164e+01	1.6355e+00
50.9	1.3275e+01	1.1688e+01	1.5863e+00	50.9	1.2492e+01	1.0823e+01	1.6693e+00
55.9	1.2924e+01	1.1302e+01	1.6223e+00	55.9	1.2141e+01	1.0431e+01	1.7100e+00
60.9	1.2739e+01	1.1097e+01	1.6421e+00	60.9	1.1973e+01	1.0243e+01	1.7304e+00

27Al3Healpha26Al in Aluminium Q-value 7.52, E = 18.00, Ex = 0.00			
deg	total energy	E - dE	dE
20.9	2.4061e+01	2.2843e+01	1.2179e+00
25.9	2.3859e+01	2.2633e+01	1.2262e+00
30.9	2.3617e+01	2.2380e+01	1.2364e+00
35.9	2.3335e+01	2.2087e+01	1.2484e+00
40.9	2.3016e+01	2.1754e+01	1.2623e+00
45.9	2.2659e+01	2.1380e+01	1.2784e+00
50.9	2.2262e+01	2.0965e+01	1.2967e+00
55.9	2.1823e+01	2.0505e+01	1.3177e+00
60.9	2.1492e+01	2.0158e+01	1.3341e+00

27Al3Healpha26Al2nd in Aluminium Q-value 7.52, E = 18.00, Ex = 0.42			
deg	total energy	E - dE	dE
20.9	2.3657e+01	2.2423e+01	1.2346e+00
25.9	2.3457e+01	2.2213e+01	1.2432e+00
30.9	2.3216e+01	2.1962e+01	1.2536e+00
35.9	2.2936e+01	2.1670e+01	1.2659e+00
40.9	2.2618e+01	2.1338e+01	1.2802e+00
45.9	2.2262e+01	2.0965e+01	1.2967e+00
50.9	2.1867e+01	2.0552e+01	1.3156e+00
55.9	2.1429e+01	2.0092e+01	1.3373e+00
60.9	2.1103e+01	1.9750e+01	1.3539e+00

27Al3Healpha26Al3rd in Aluminium Q-value 7.52, E = 18.00, Ex = 1.06			
deg	total energy	E - dE	dE
20.9	2.3036e+01	2.1775e+01	1.2614e+00
25.9	2.2837e+01	2.1567e+01	1.2703e+00
30.9	2.2598e+01	2.1317e+01	1.2811e+00
35.9	2.2320e+01	2.1026e+01	1.2940e+00
40.9	2.2005e+01	2.0696e+01	1.3089e+00
45.9	2.1651e+01	2.0325e+01	1.3261e+00
50.9	2.1259e+01	1.9913e+01	1.3459e+00
55.9	2.0823e+01	1.9454e+01	1.3686e+00
60.9	2.0506e+01	1.9120e+01	1.3857e+00

27Al3Healpha26Al1st in Aluminium Q-value 7.52, E = 18.00, Ex = 0.23			
deg	total energy	E - dE	dE
20.9	2.3840e+01	2.2613e+01	1.2270e+00
25.9	2.3639e+01	2.2403e+01	1.2354e+00
30.9	2.3397e+01	2.2151e+01	1.2457e+00
35.9	2.3117e+01	2.1859e+01	1.2579e+00
40.9	2.2798e+01	2.1526e+01	1.2720e+00
45.9	2.2442e+01	2.1153e+01	1.2883e+00
50.9	2.2046e+01	2.0739e+01	1.3070e+00
55.9	2.1607e+01	2.0279e+01	1.3283e+00
60.9	2.1279e+01	1.9934e+01	1.3449e+00