Gamma ray lines seen in SPI data

Here you find the list of the prominent lines of background lines in-flight and of the sources which have been used during calibration INTEGRAL/SPI. For a more complete list of in-flight background lines see Weidenspointner et al. 2003, A&A 411, L113

Source	lines [keV]	remarks	Rate [1/sec]
Background (in-flight)	23.7 25.1 53-67 86.8 ? 93.3 94.4 102.9 139.68 194.2 198.3 309.8 403.1 438.6 472.2 475.4 511 584.6 628.9 721.2 752.0 840.8 843.8 846.8 872.3 882.5 911.4 1117.3 1325.2 1346.9 1368.63 1460.8 1650.9 1764.3 1778.9 2223.3 2754.03 4122.6	71mGe(IT) 58mCo(IT) 73mGe complex 69mGe(IT) 67Ga(EC)67Zn 67Ga(EC)67Zn ? 67Ga(EC)67Zn 75mGe(IT)75Ge 67Ga(EC)67Zn 71mGe(IT) 67Ga(EC)67Zn 67Ga(EC)67Zn 69Cu(b-)69mZn 24mNa(IT) 77Ge(beta-)77As e+ (line not Gaussian) 69Ge(EC)69Ga + K 201Bi(EC)201Pb 68mCu(IT)68Cu 204mBi(IT)204Bi 54Mn(EC)54Cr+K 27Mg(beta-)27Al 56Mn(beta-)56Fe complex 69Ge(EC)69Ga blend 69 Ge(EC)69Ga + K 228Ac(beta-)228Th 69 Ge(EC)69Ge+K 201Bi(EC)201Pb 69 Ge(EC)69Ga + K 24Na(beta-)24Mg 40K(EC)40Ar 201Bi(EC)201Pb 205Bi(EC)205Pb 28Al(beta-)28Si n + H 24 Na(beta-)24Mg 24Na(beta-)24Mg	3.4 6.2 ~100 26.8 9.5 1.4 3.5 30.3 2.2 52.6 1.2 0.8 2.75 2.2 0.2 1.73 1.1 0.2 0.2 0.2 0.2 0.7 0.3 0.4 0.7 0.3 1.8 2.4 0.4 0.6 0.1 1.5 0.3 0.5 0.1 0.15 0.01

^{137}Cs	283.53 661.646 33.0	LD and 8m source also used during SVT-E and R.O.T.	
^{22}Na	1274.53 511	8m source also used during R.O.T.	
^{133}Ba	80.997 276.398 302.853 356.017 383.851 632.56	8m source	
^{241}Am	26.345 33.196 59.541	LD and 8m source	
^{109}Cd	22.163 21.990 88.035	8m source	
^{60}Co	1173.237 1332.501	LD and 8m source	
^{203}Hg	279.197	8m source	
^{54}Mn	834.848	8m source	
^{24}Na	1368.633 2754.028	LD and 8m source	
^{238}Pu	6129.2 6050.0	8m source	
^{85}Sr	129.820 151.159 231.67 238.9 514.007	8m source	
^{228}Th	84.373 131.613 166.410 215.983 238.632 2614.533	8m source	
^{88}Y	898.042 1836.063 2734.086	8m source	

This information has been provided by V. Beckmann (NASA/Goddard Space Flight Center).