Group Meeting

28th. June. 2018

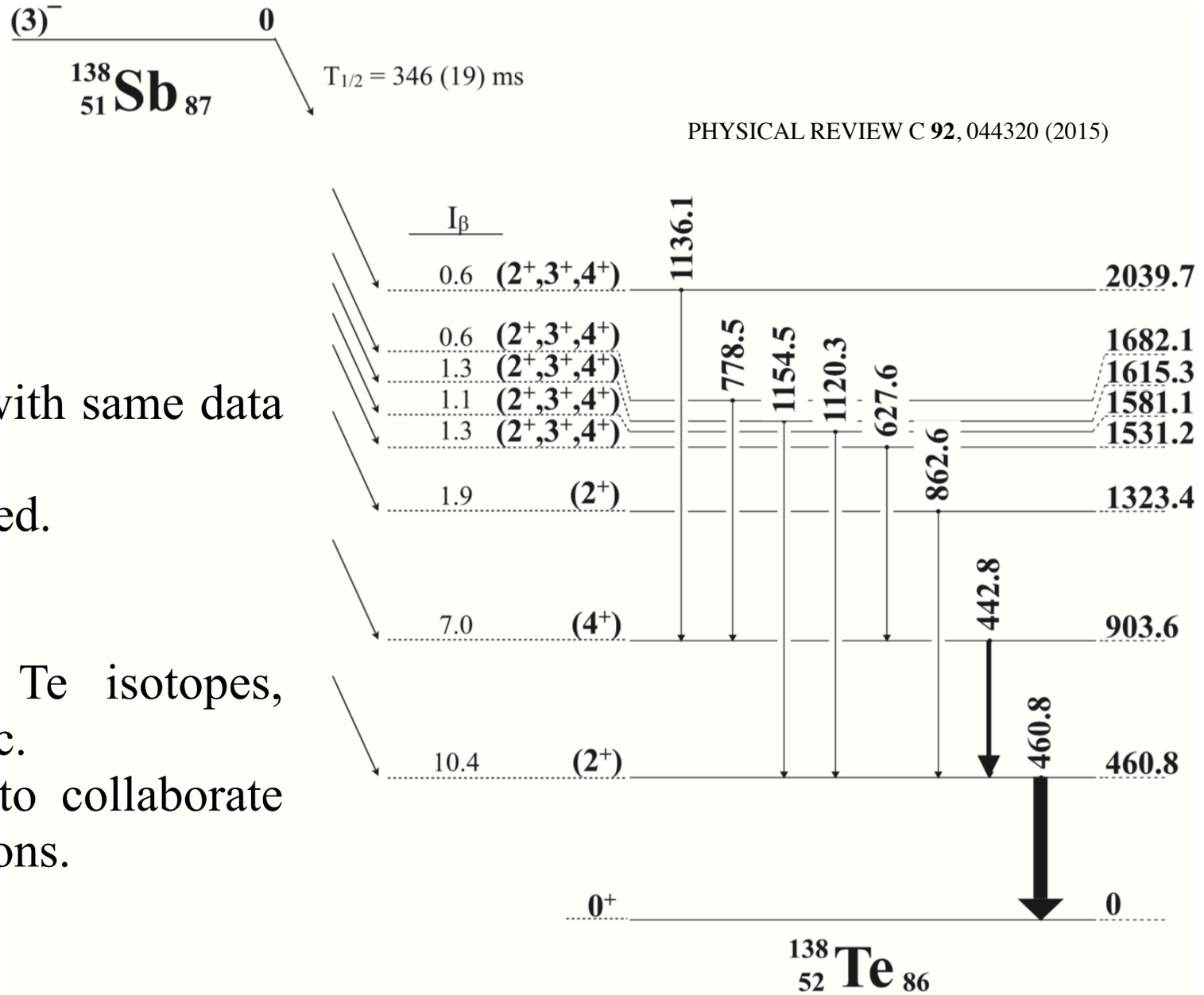
Byul Moon

Progress

1. EURICA data analysis and sorting has been finished.
2. Nuclear structures of ^{138}Te, ^{140}Te, ^{138}I, and ^{142}I are being analyzed.
3. New theorist has joined to our collaboration.
   : Dr. Nobuo Hinohara, Tsukuba University,
   QRPA calculations.

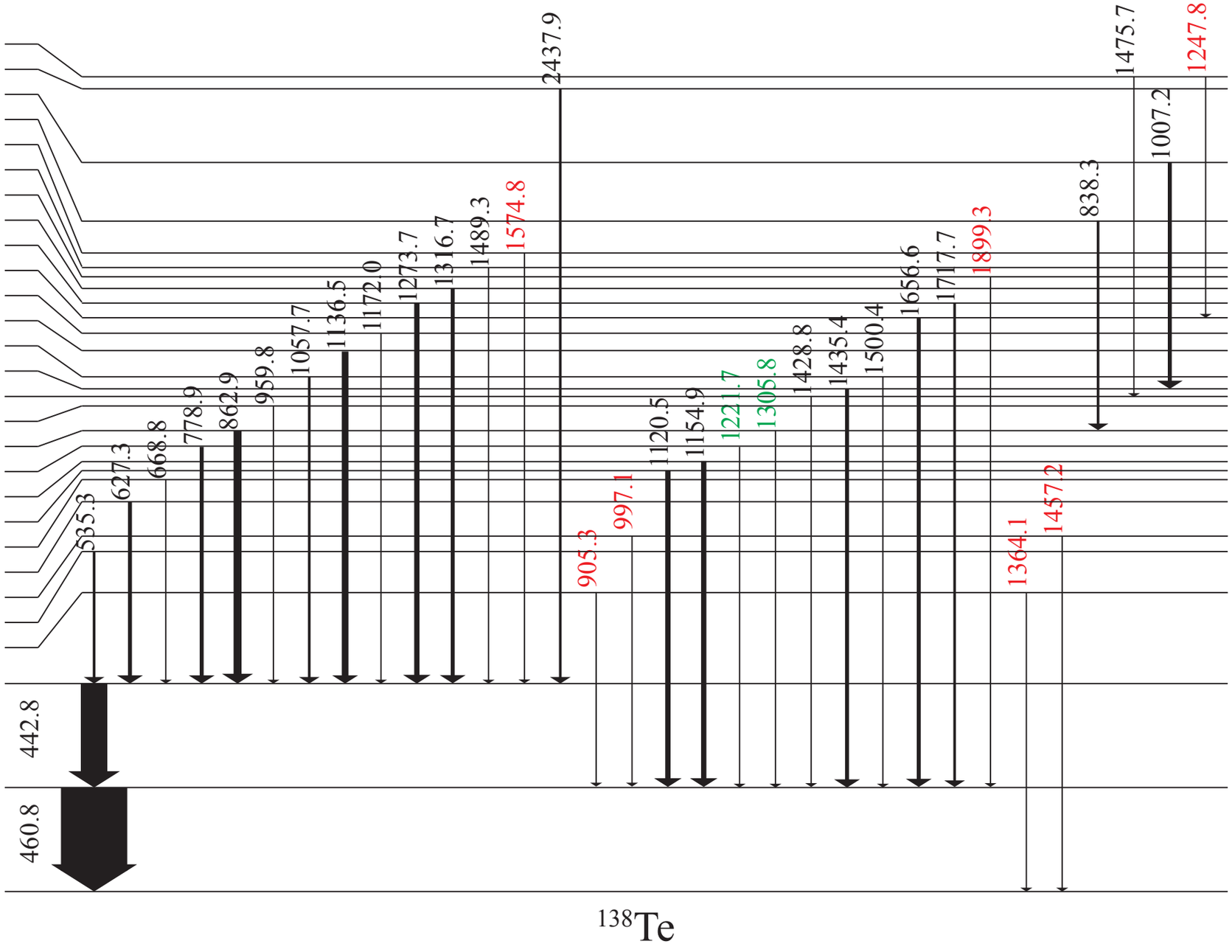
^{138}Te Structure

1. Previous result by P. Lee with same data set.
2. More transitions are assigned.
3. Half-life changed.
4. Find new physics.
   e.g. shape evolution in Te isotopes, neutron dominant effect, etc.
5. Looking for any theorist to collaborate with us for QRPA calculations.



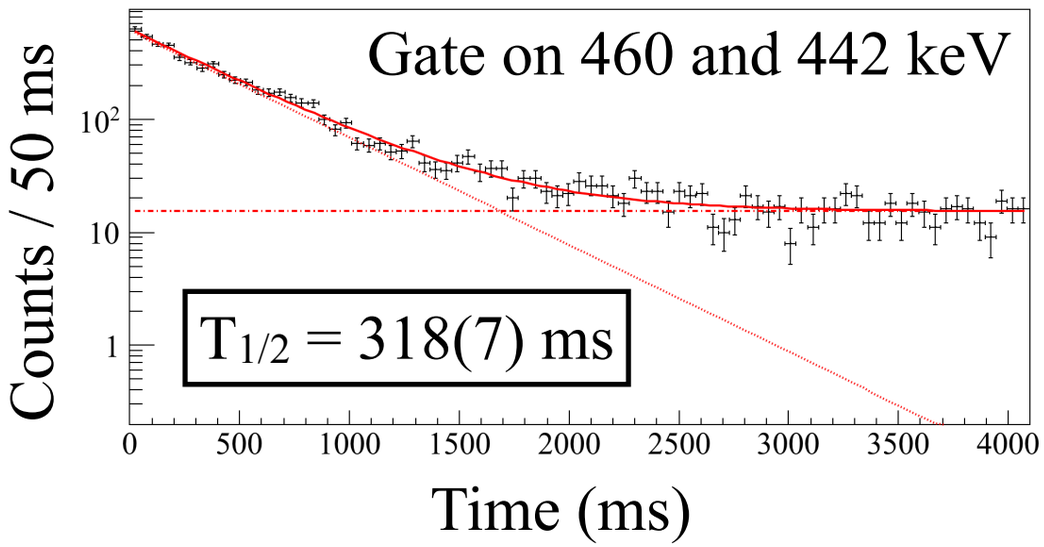
^{138}Te Structure

I_{β^-}(%)	log *ft*		
1.45	6.53		***3365.3***
1.57	6.50		***3341.5***
1.04	6.79		***2903.4***
0.366	7.31		***2604.8***
0.457	7.24		***2478.4***
0.538	7.19		***2392.9***
0.523	7.21		***2360.1***
1.03	6.95		***2220.3***
2.66	6.54		***2177.9***
2.02	6.68		***2117.4***
0.407	6.73		***2075.6***
1.87	7.34		***2040.1***
1.51	6.84		***1961.3***
1.36	6.90		***1896.2***
0.546	7.29		***1889.6***
0.284	7.59, 9.91*	5^+	***1863.4***
2.55	6.66	2^+	***1766.5***
2.48	6.68	2^+	***1682.5***
1.50	6.91	$3^+, 4^+$	***1615.7***
1.71	6.86		***1581.3***
0.384	7.52		***1572.4***
2.53	6.71		***1530.9***
0.638	7.31	2^+	***1457.6***
		6^+	***1438.9***
0.384	7.56	2^+	***1365.1***
4.70	6.56	4^+	***903.6***
16.2	6.10	2^+	***460.8***
		0^+	***0***

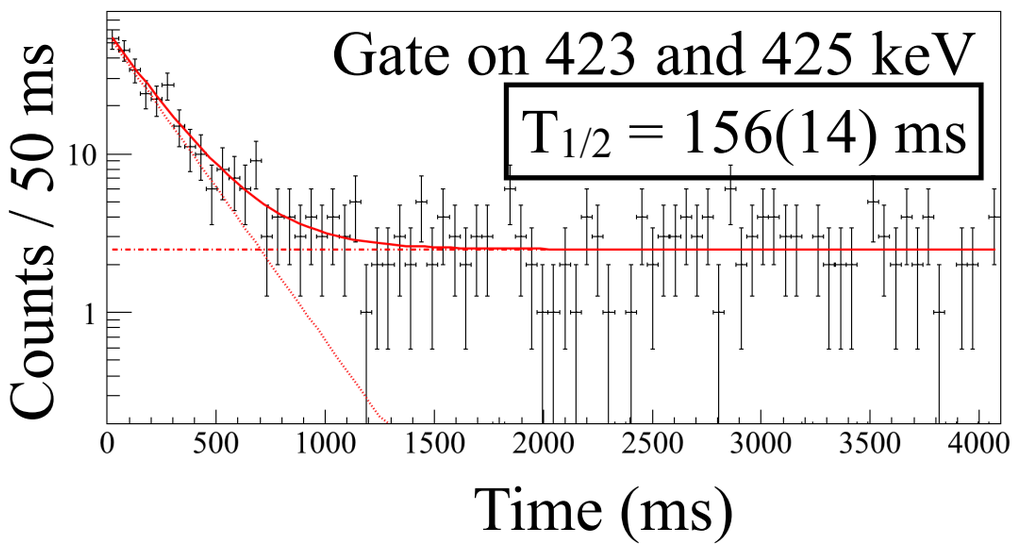


Half-life Measurements

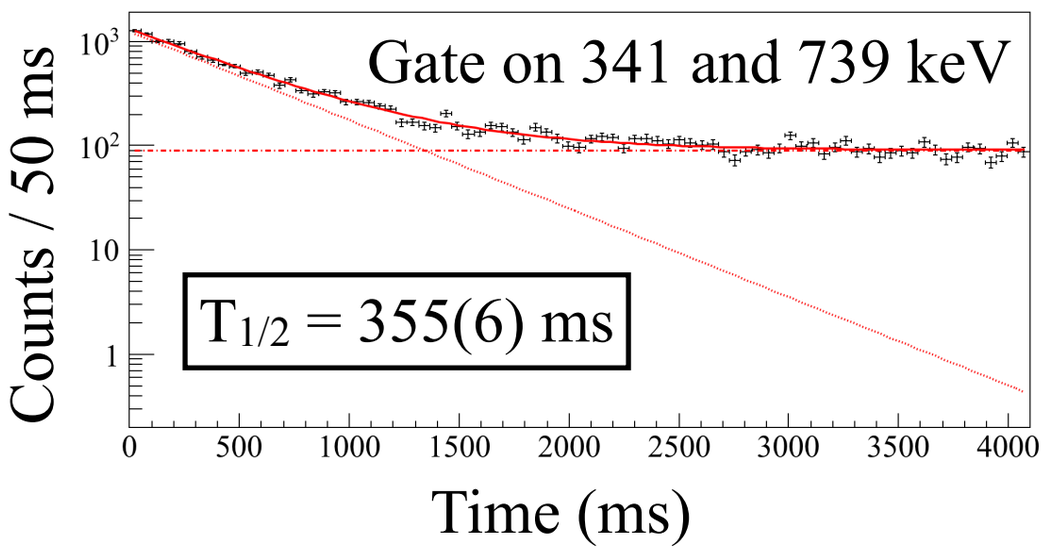
^{138}Sb



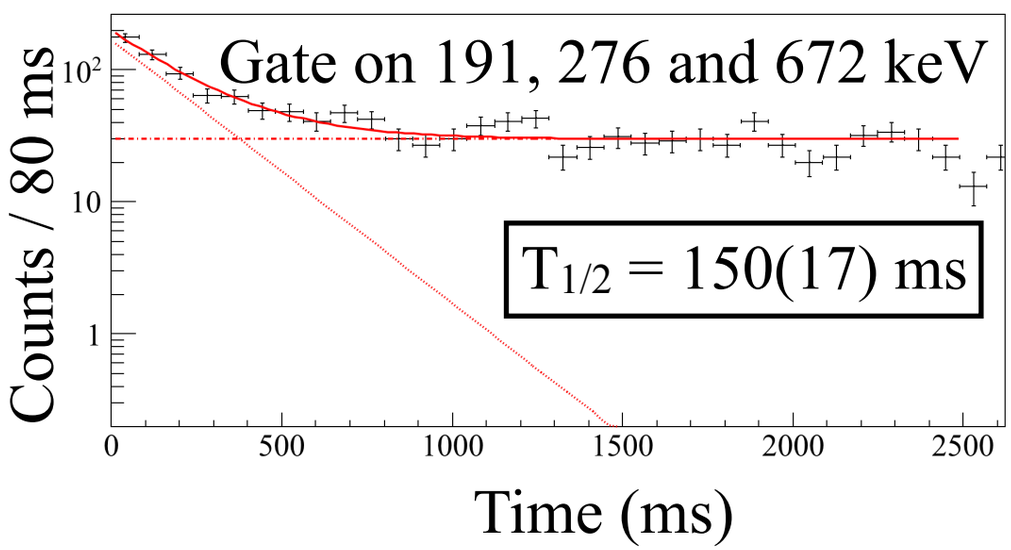
^{140}Sb



^{140}Te



^{142}Te



Future Plan

1. Finish reconstructing level schemes for ^{138}Te, ^{138}I, and ^{142}I.
2. Request theoretical calculations.
   Shell model & QRPA calculations.