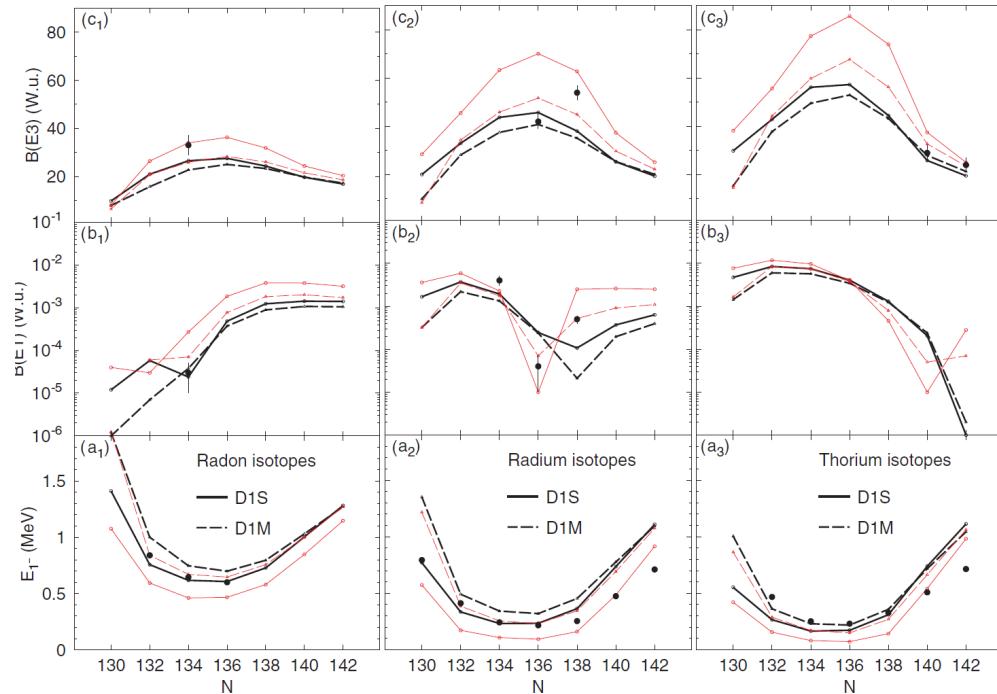


Gas Differential Doppler Shift Attenuation Method (GasDDSAM) overview

Dave O'Donnell
University of the West of Scotland

Motivation



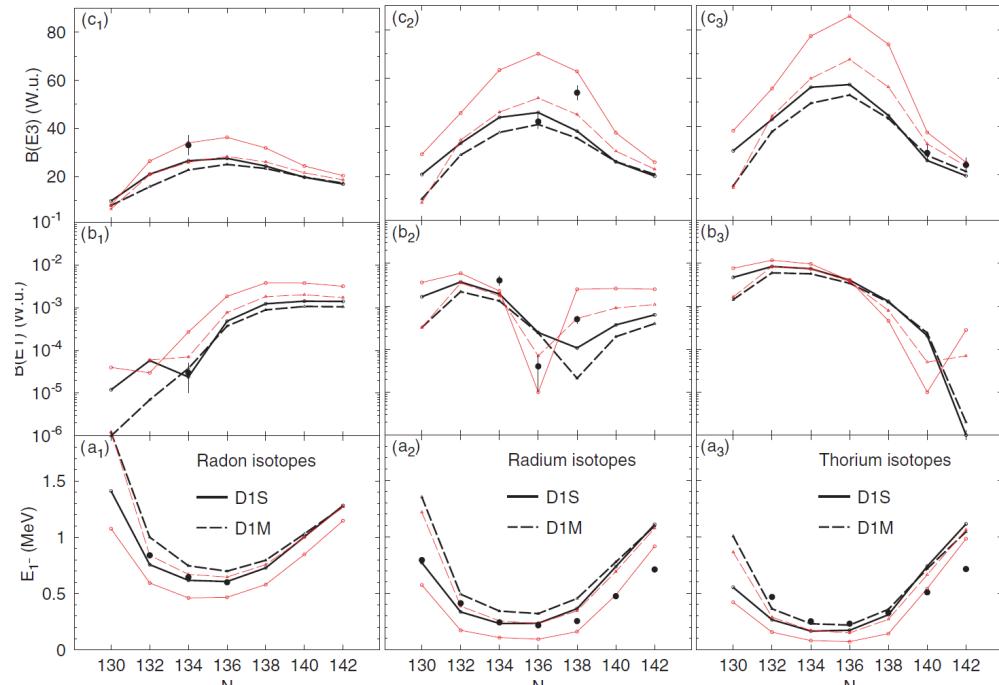
Robledo and Butler PRC **88** 051302(R) (2013)

Stopped beam rate in pps (Ultimate FRIB yields)

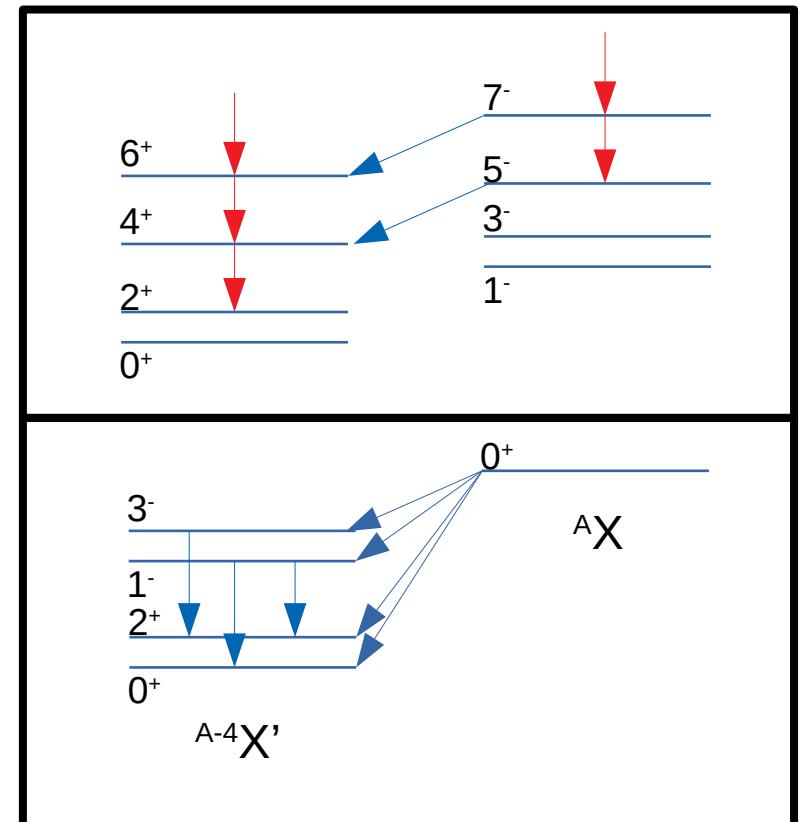
Z	132	134	136	138	140		
92	^{225}U 8.73E8	^{226}U 5.64E8	^{227}U 8.73E8	^{228}U 1.09E9	^{229}U 1.32E9	^{230}U 1.56E9	^{231}U 1.82E9
	^{224}Pa 1.17E9	^{225}Pa 1.04E9	^{226}Pa 1.17E9	^{227}Pa 1.23E9	^{228}Pa 1.24E9	^{229}Pa 1.23E9	^{230}Pa 1.18E9
	^{223}Th 6.81E8	^{224}Th 6.78E8	^{225}Th 6.64E8	^{226}Th 6.02E8	^{227}Th 5.29E8	^{228}Th 4.49E8	^{229}Th 3.68E8
	^{221}Ac 1.51E8	^{222}Ac 3.57E8	^{223}Ac 3.08E8	^{224}Ac 2.54E8	^{225}Ac 2.03E8	^{226}Ac 1.55E8	^{227}Ac 1.14E8
	^{220}Ra 9.47E6	^{221}Ra 1.37E8	^{222}Ra 1.05E8	^{223}Ra 7.73E7	^{224}Ra 5.44E7	^{225}Ra 3.65E7	^{226}Ra 2.33E7
						^{227}Ra 1.40E7	^{228}Ra 7.88E6
							^{229}Ac 5.29E7

<https://groups.nscl.msu.edu/frib/rates/fribrates.html>

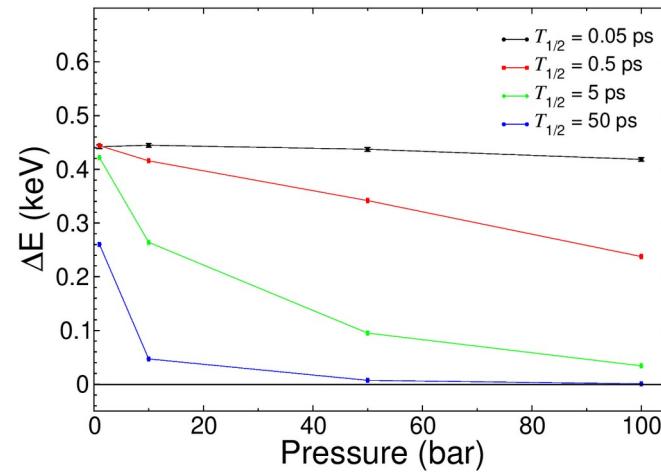
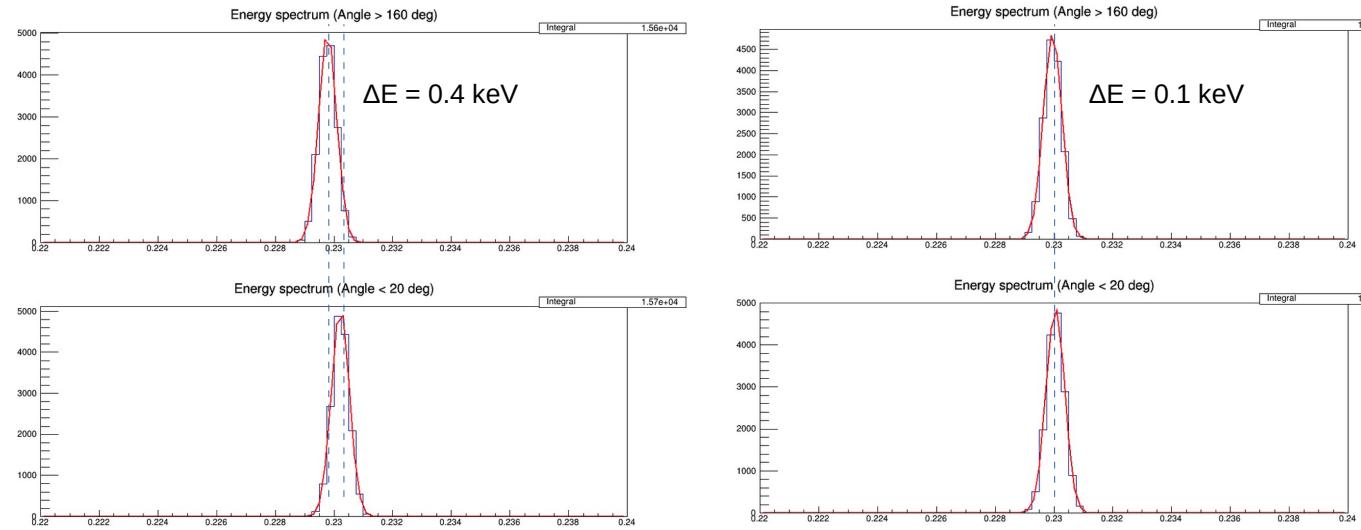
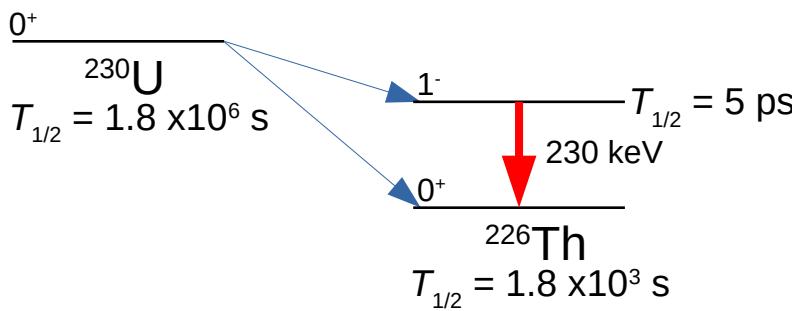
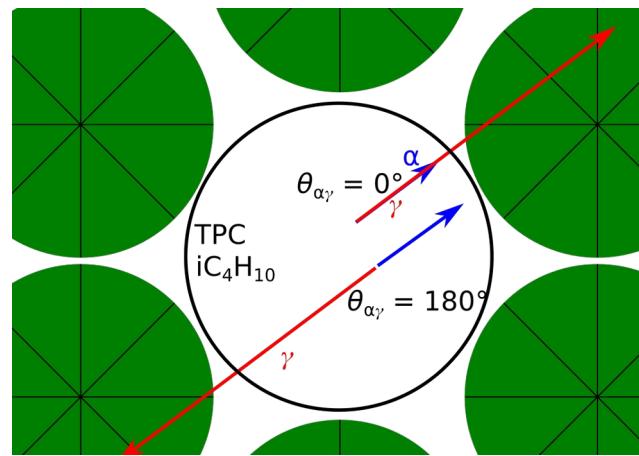
Motivation



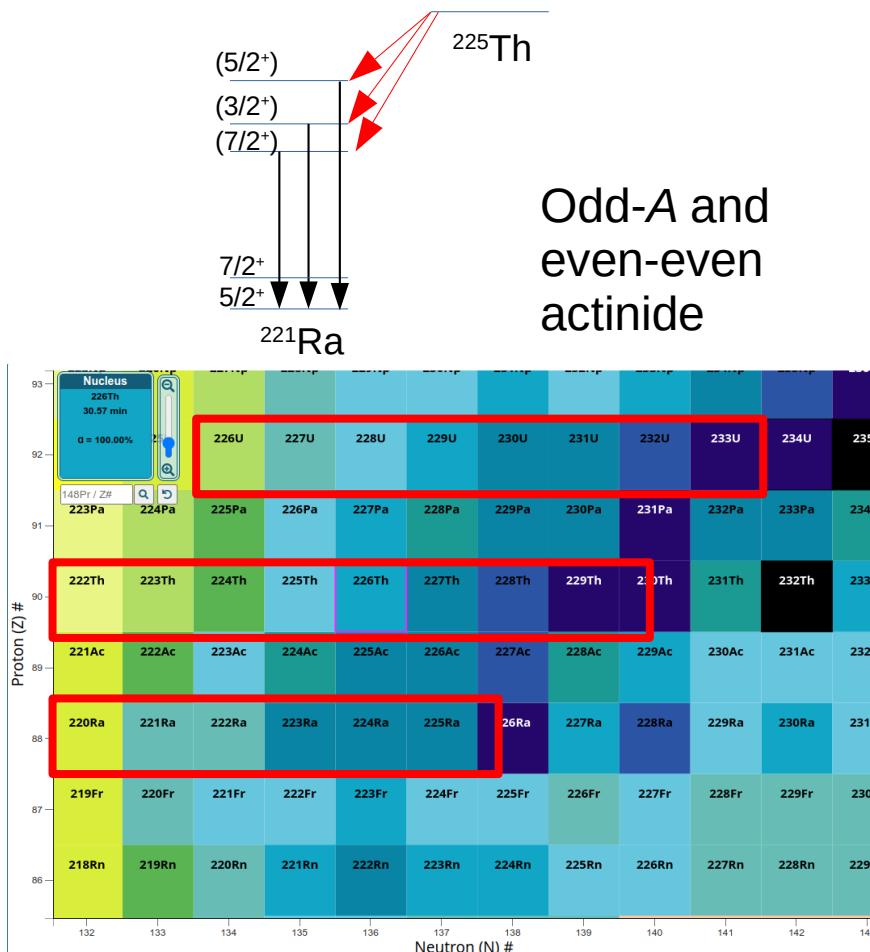
Robledo and Butler PRC **88** 051302(R) (2013)



Technique



Physics cases



Quadrupole deformation near $Z = 82$ and $N = 126$ shell closures

