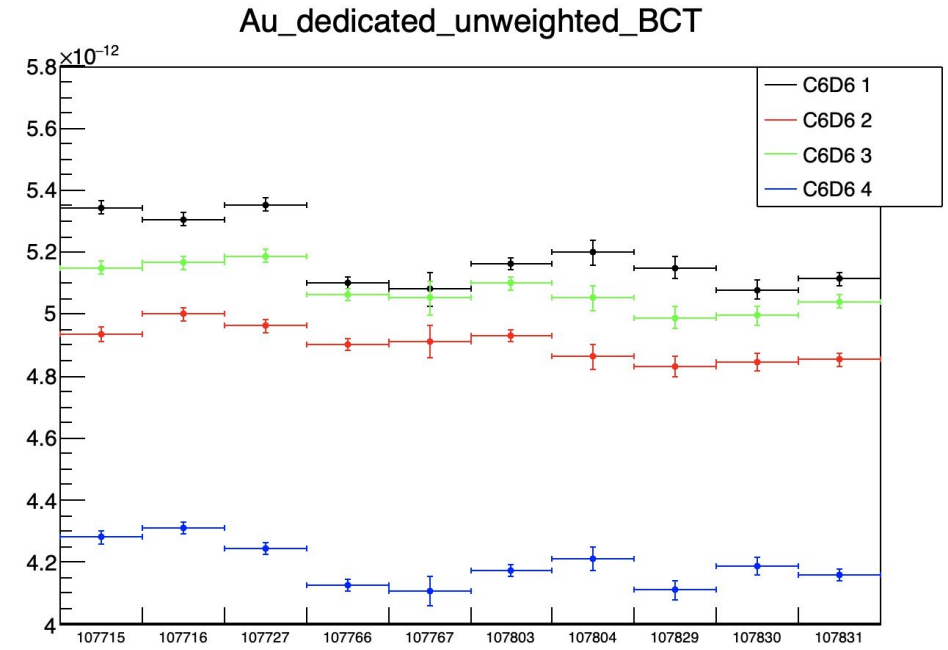
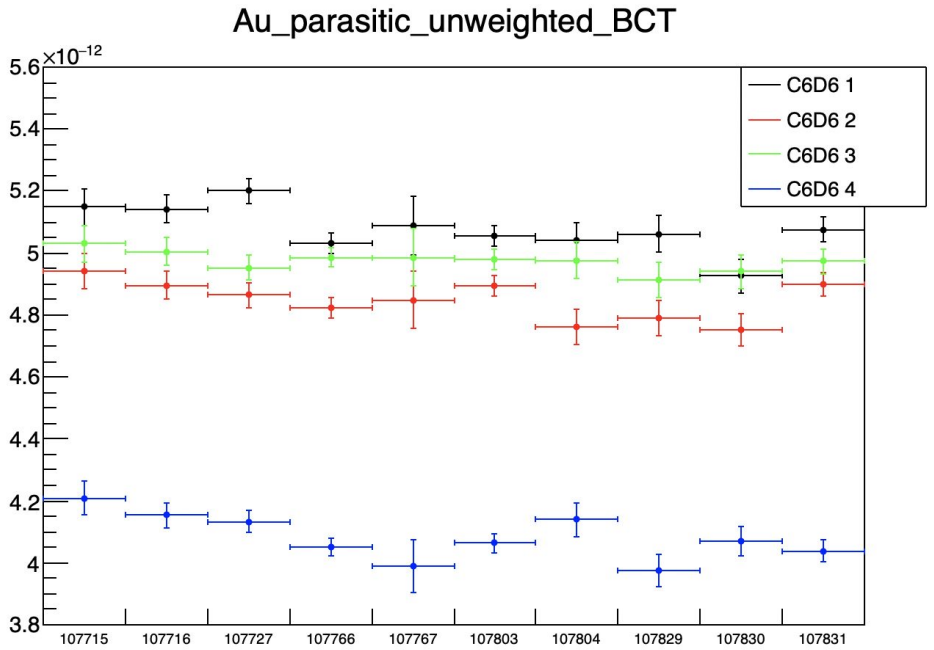
07 Sep 2020

Proton consistency test
Au, unweighted, BCT

Deadtime = 60
coincidence time = 60
htof deadtime corrected
Au resonance = 55e5 - 65e5 ns.





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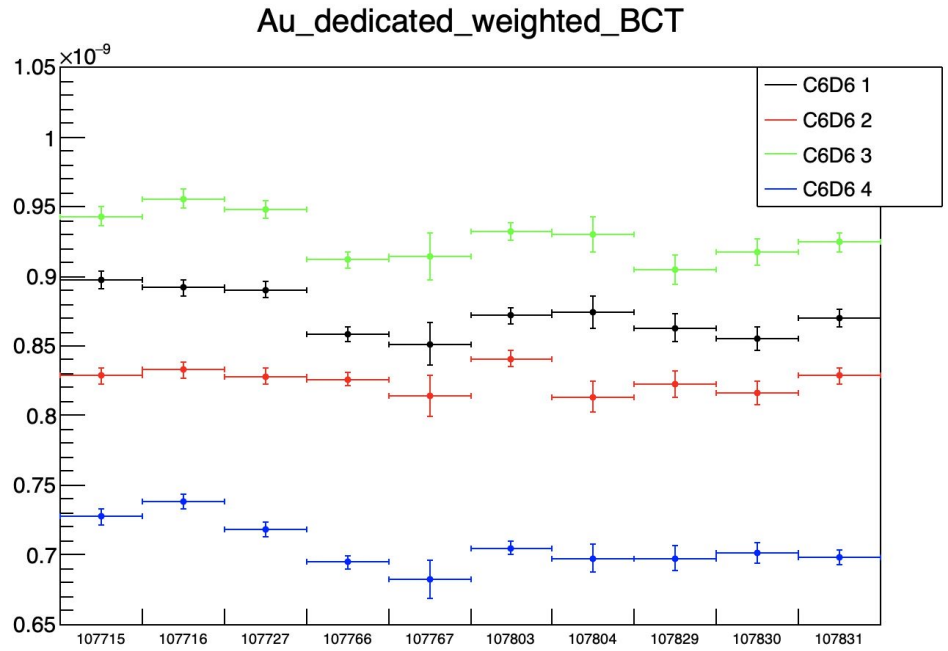
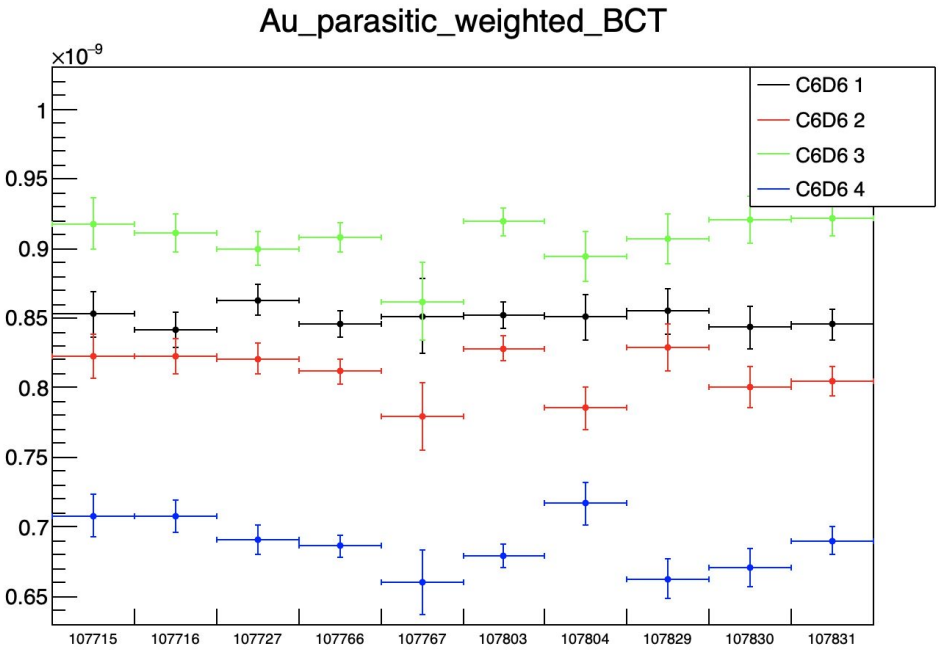
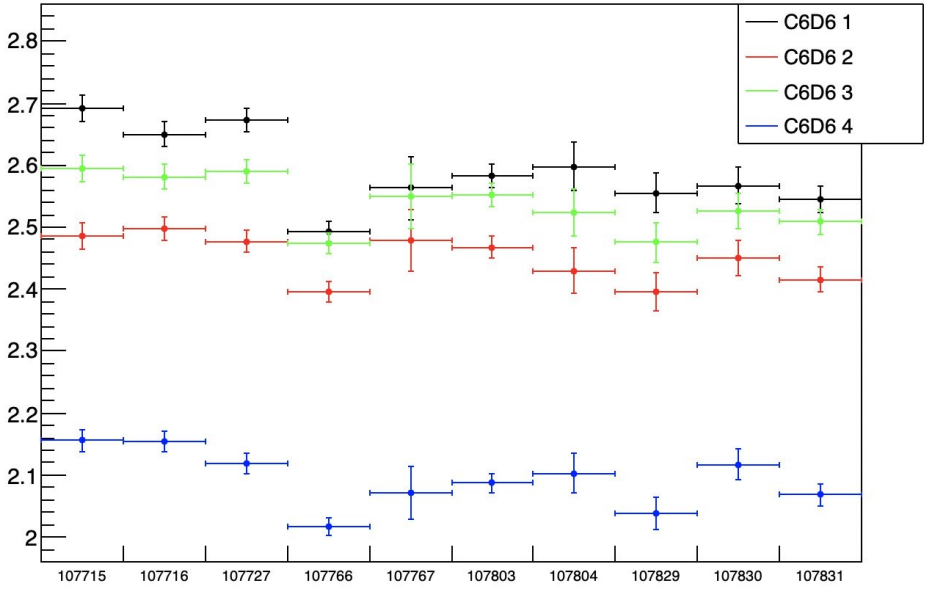




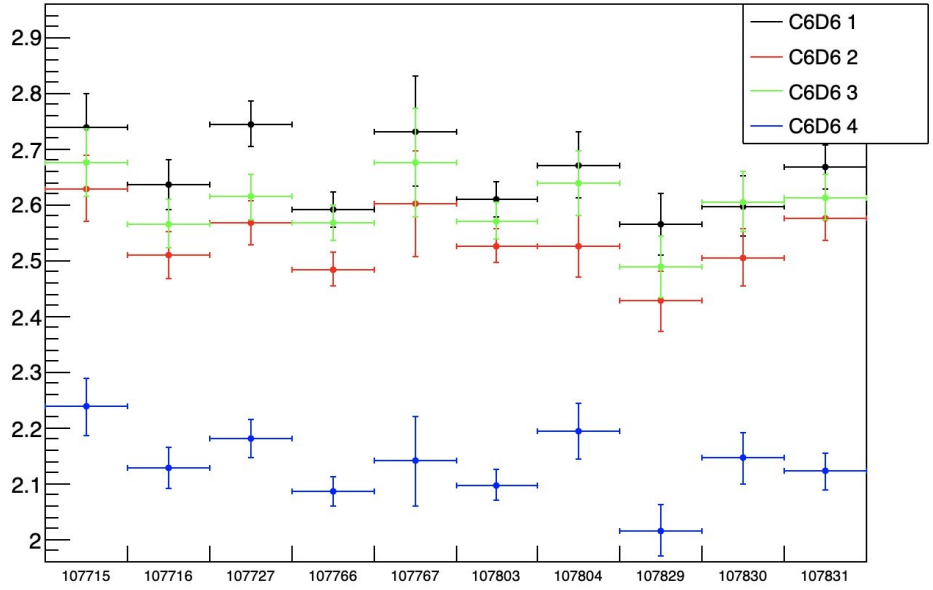
Proton consistency test
Au, unweighted, SiMon

Deadtime = 60
coincidence time = 60
htof deadtime corrected
Au resonance = 55e5 - 65e5 ns
Sili(1,2,4) triton peak = 28e3 - 42e3 area
Sili3 triton peak = 28e3 - 46e3
Sili prior cut = tof-tflash>133715 && tof-tflash<42284300 (0.1ev - 10keV)

Au_dedicated_unweighted_SiMon



Au_parasitic_unweighted_SiMon



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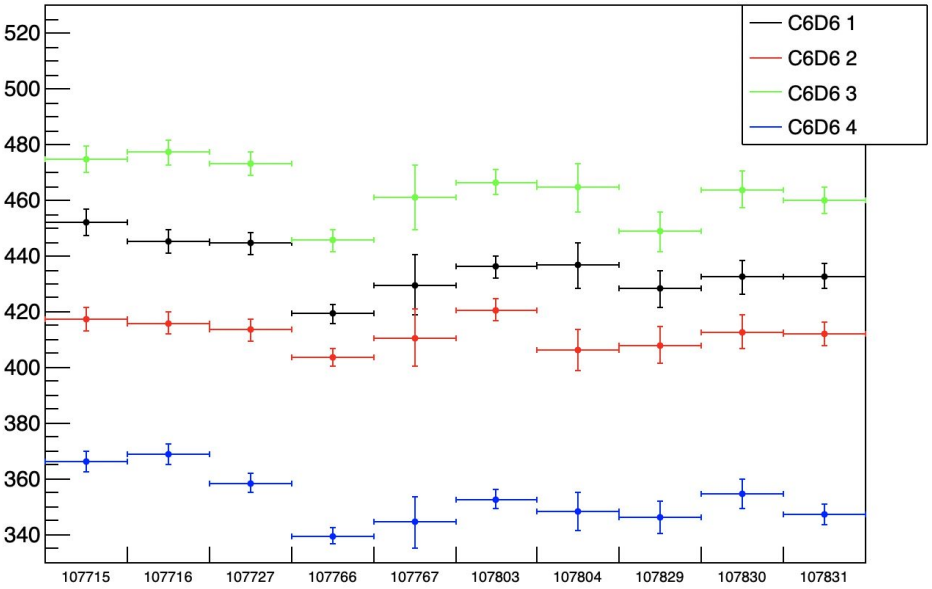

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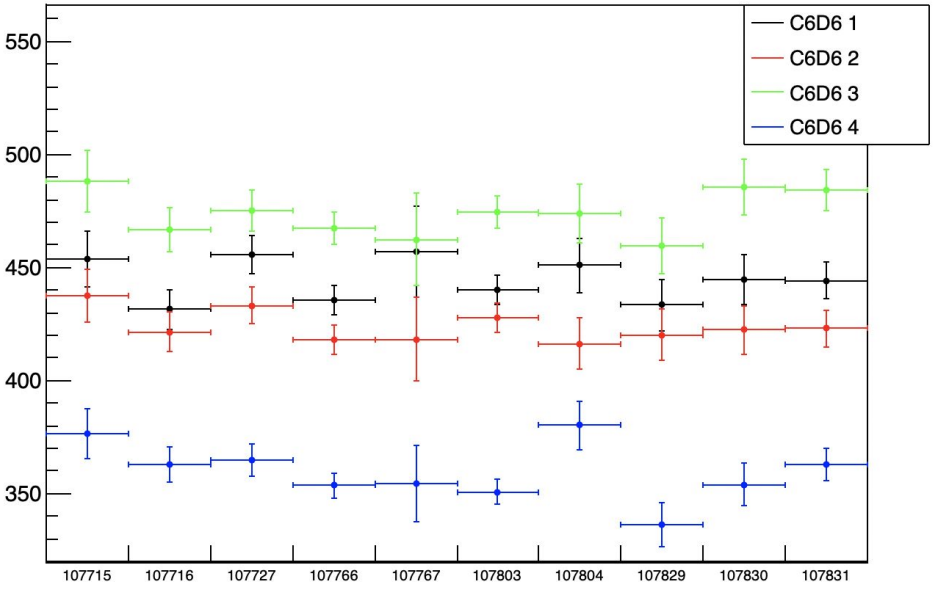
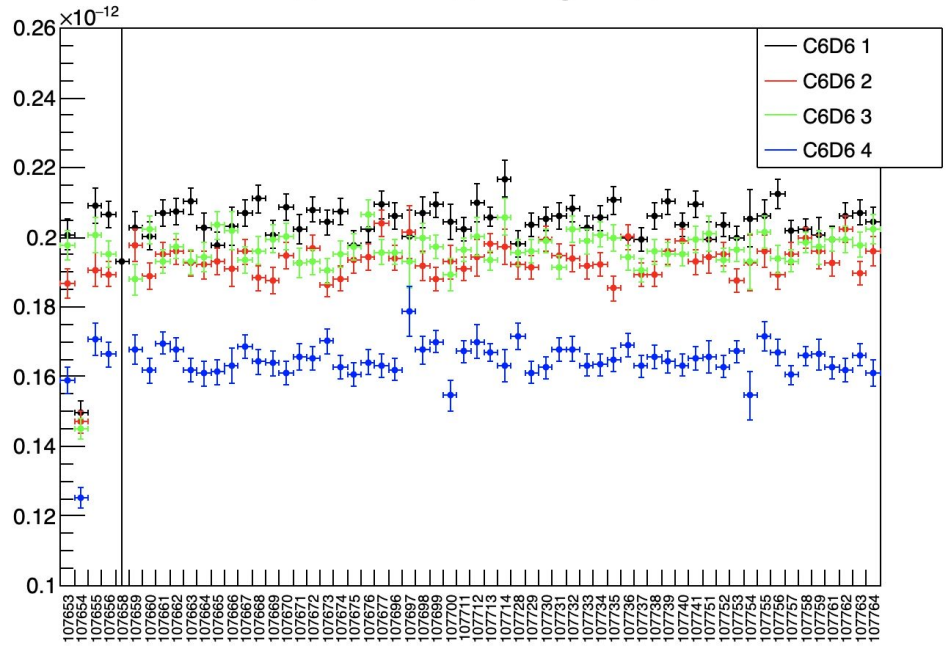


Proton consistency test
Se78, unweighted, BCT

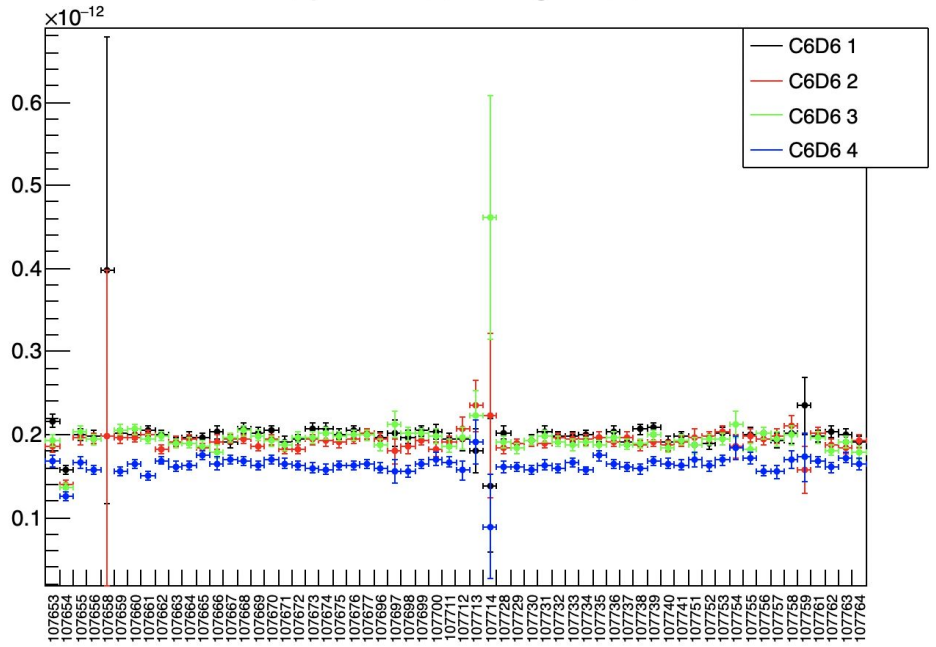
Deadtime = 40
coincidence time = 40
htof deadtime corrected
resonance = 63e4 - 70e4 ns.

107654: uncertain sample position, low stat in tof spectrum
107658: low stat (4 events)

Se78_dedicated_unweighted_BCT



Se78_parasitic_unweighted_BCT



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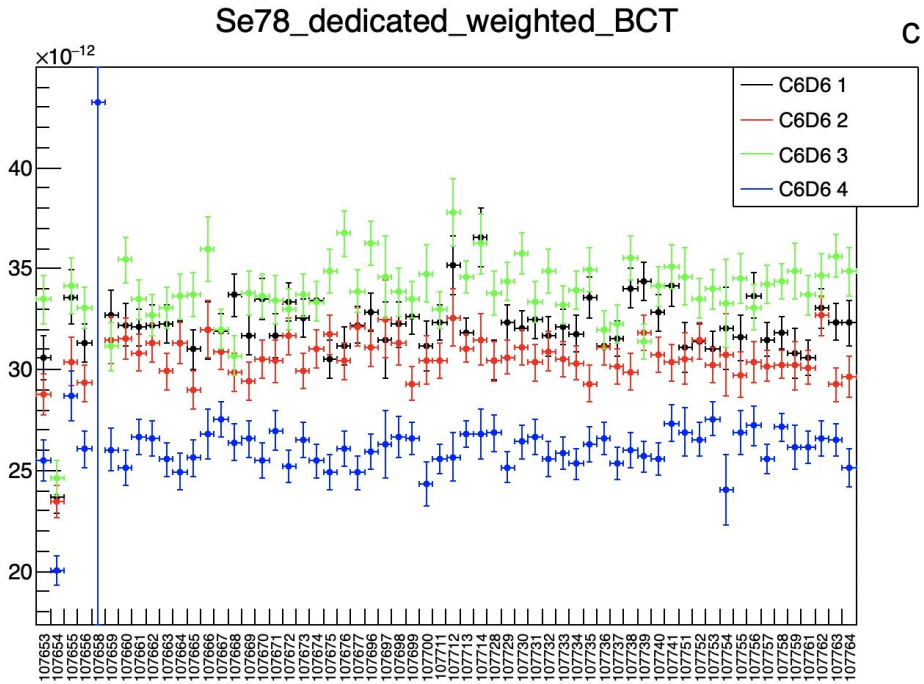
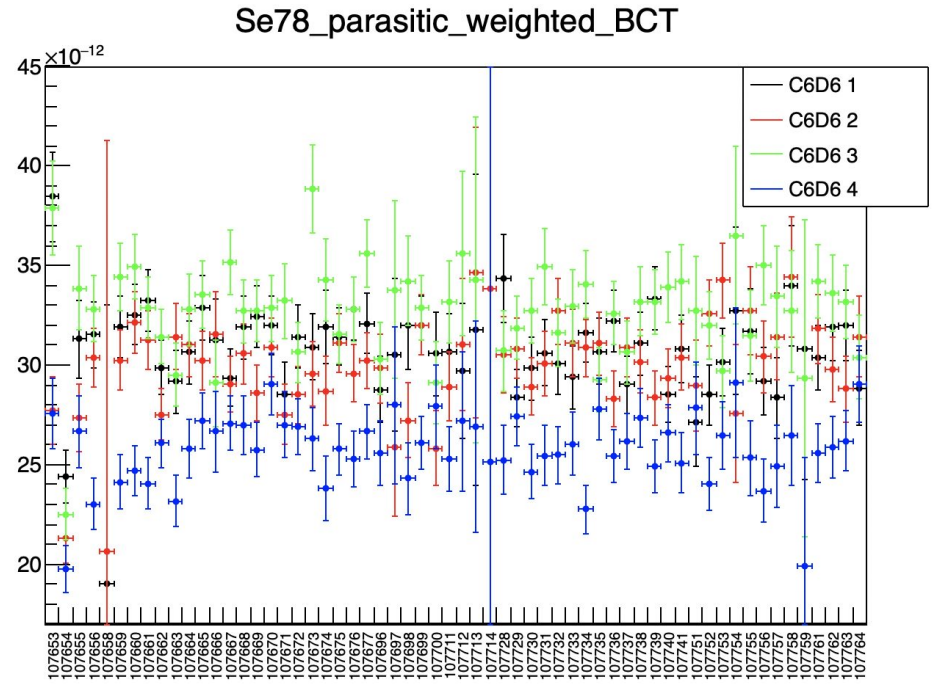


c



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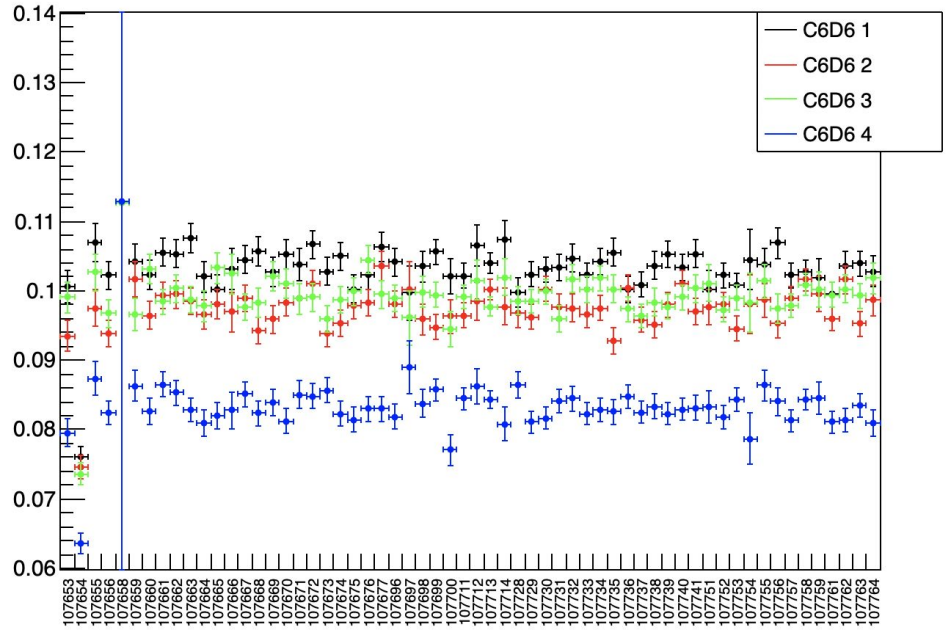
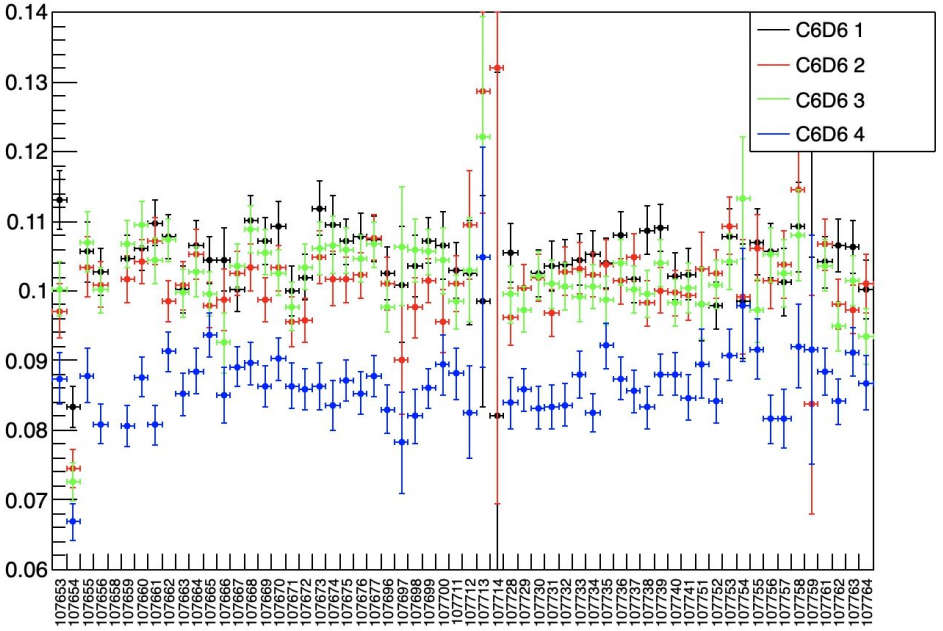
Se78_dedicated_unweighted_SiMon



Se78_parasitic_unweighted_SiMon



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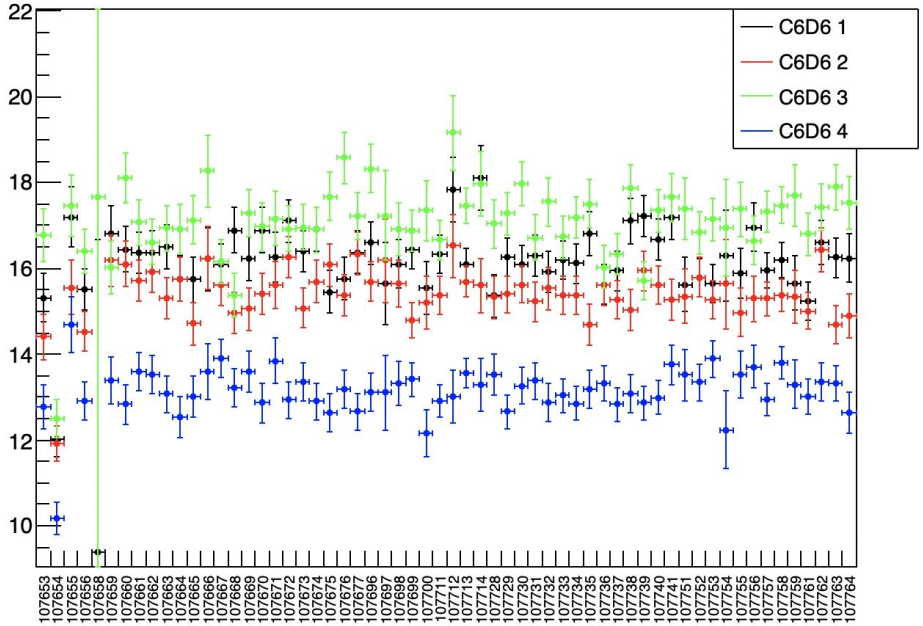
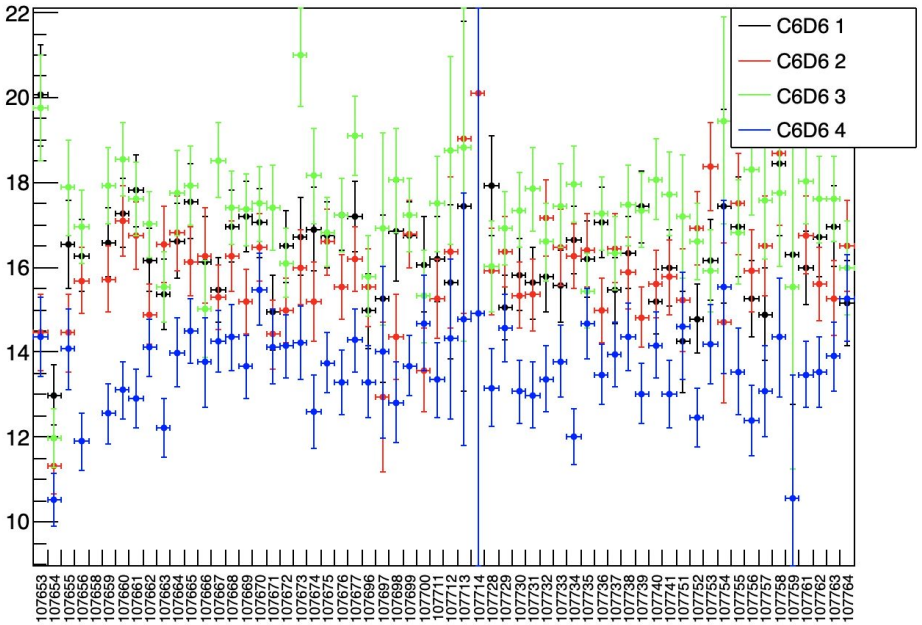
Se78_dedicated_weighted_SiMon

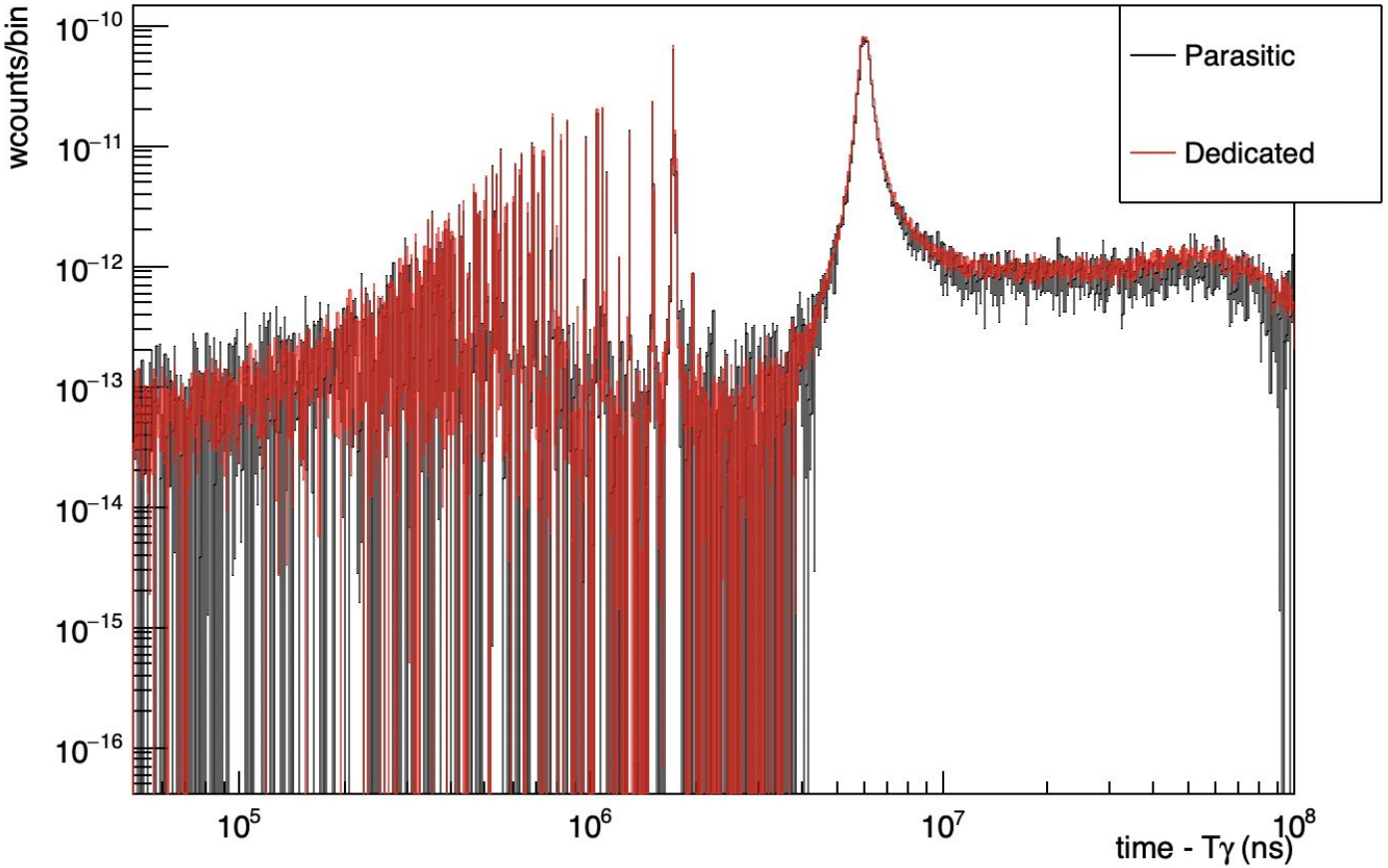


Se78_parasitic_weighted_SiMon



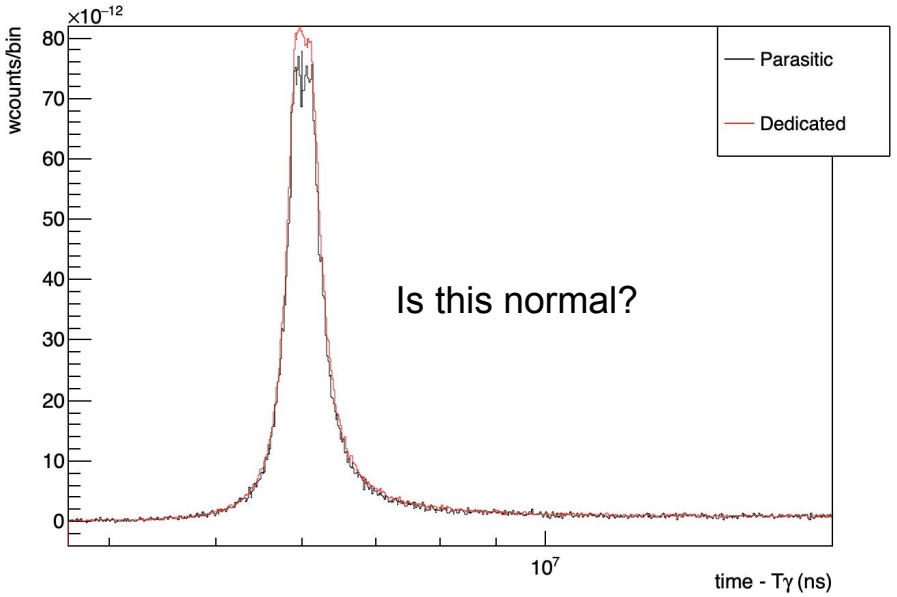
Background subtraction
(Au cal1 - summed detectors) Rebin 10

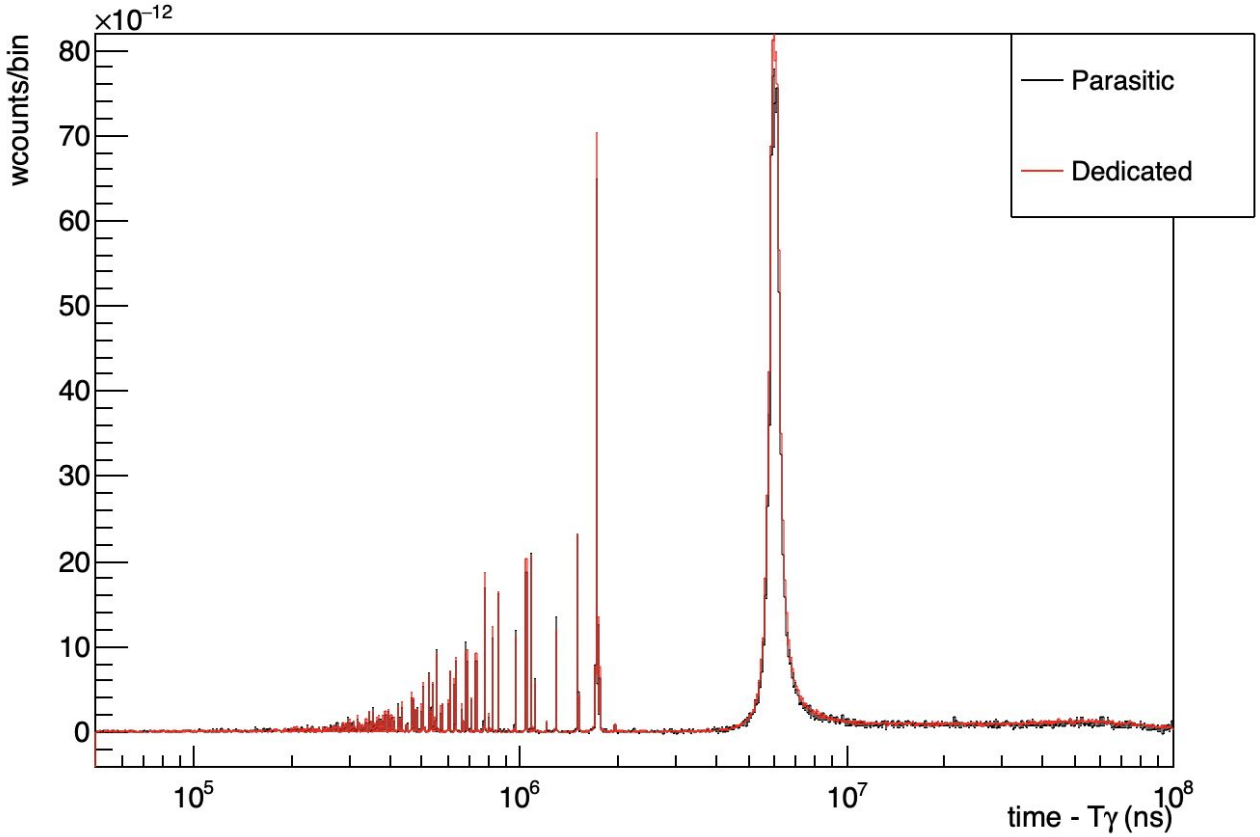
1. Deadtime correction on sample, empty frame, and amb BG.
2. Scale empty frame histogram by protonsSample/protonsEmp.
3. Scale ambient background histogram by bunchesSample/bunchesAmb
4. Subtract scaled ambBG from sample hist and from emptyFrame hist.
5. Subtract emptyFrame hist from sample hist.



Background subtraction (Au cal1 - summed detectors)

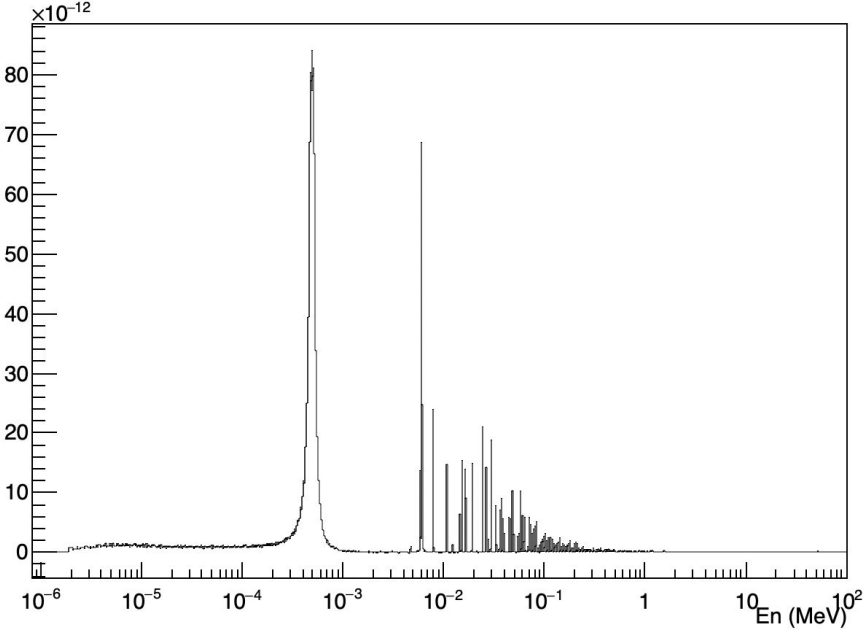
Rebin 10

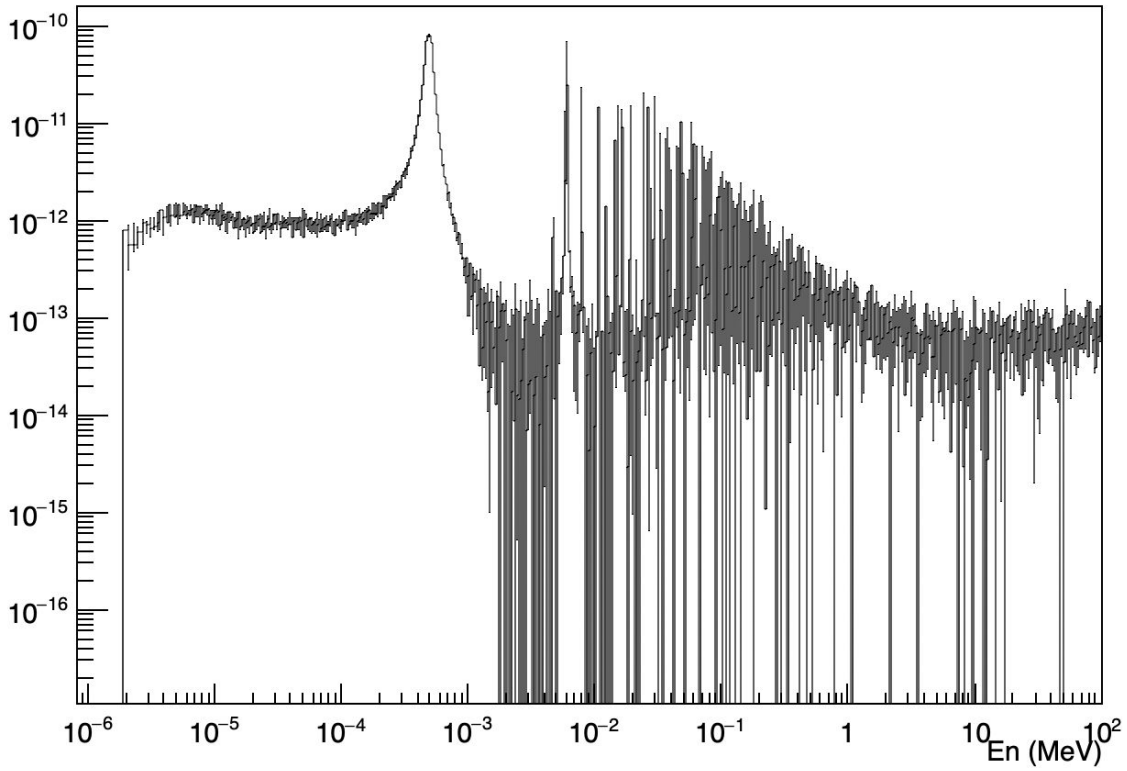




TOF to En
(Au cal1 - summed detectors)

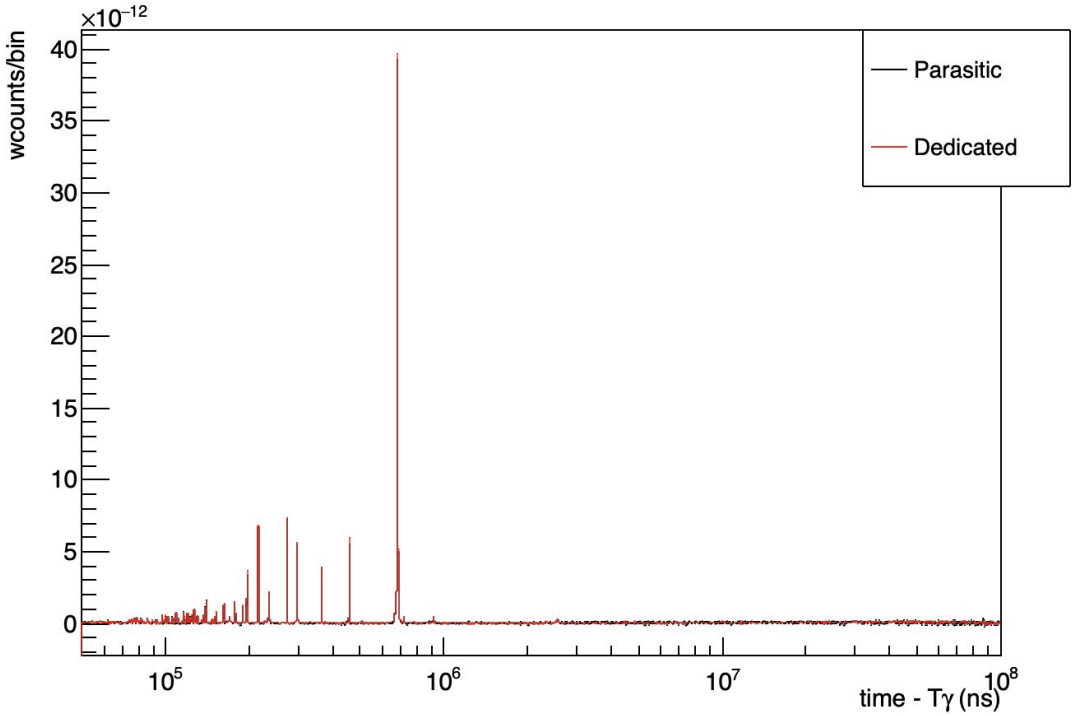
Dedicated, rebin 10, BG subtracted, 185m path

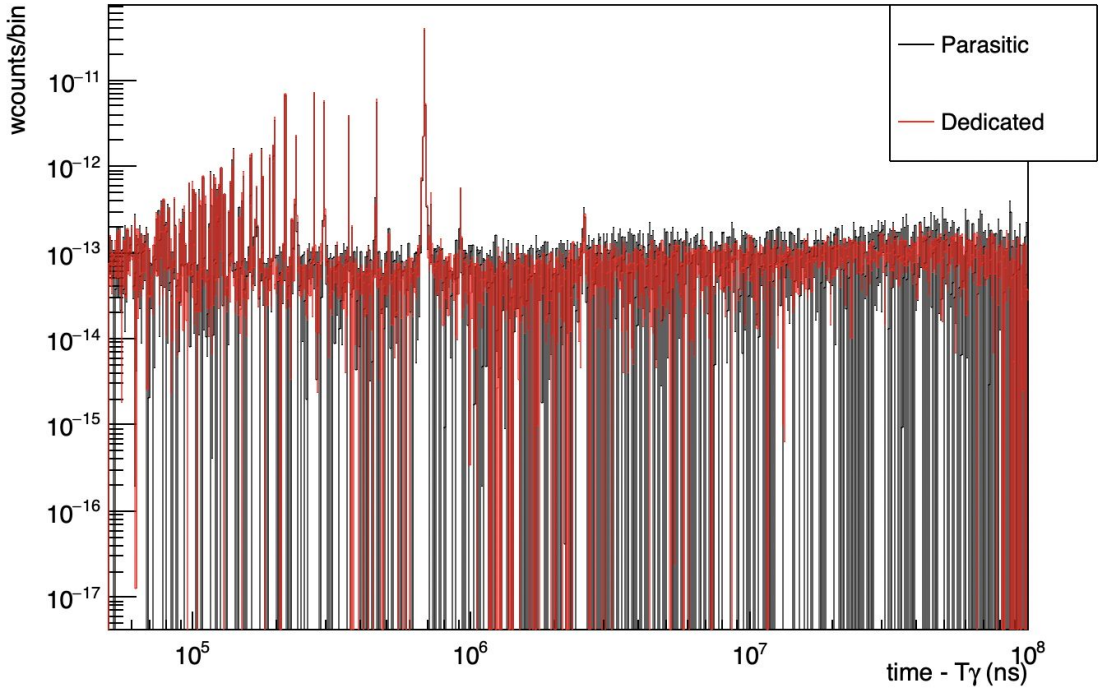




Background subtraction (Se78: summed detectors)

Rebin 10





Background subtraction
(Se78 - summed detectors) Rebin 10