

EXP1904: Reference reaction - Analyzing #394

Analyzing # 436 (Открыта): Reference reaction: Data analysis

Analyzing # 459 (Открыта): Beam of 10Be

Particle identification from ToF

11/14/2019 01:59 PM - Vratislav Chudoba

Status:	Открыта	Start date:	11/14/2019
Priority:	Нормальный	Due date:	
Assignee:	Ivan Muzalevsky	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
Provide 2D particle identification plot based on information from ToF detectors.			
Identify all particles observed in the plot.			
Provide the ratio (in percents) of the ¹⁰ Be. If relevant provide also ratio of other significant admixtures present in the radioactive beam.			

History

#1 - 11/14/2019 02:01 PM - Vratislav Chudoba

- Tracker changed from Documenting to Analyzing

#2 - 11/15/2019 11:06 AM - Ivan Muzalevsky

Untitled%201-1.png

To calculate the beam purity, cuts described in the [issue 356](#) were used. On the following picture, the implementation of that cut is presented:

It was found that the purity of ¹⁰Be is 71%

The amount of ⁹Li in the beam is 8.6%

The amount of ¹³B in the beam is 14%

For the dE-ToF 10Be identification, we used two graphical cuts, corresponded to amp(F3) vs ToF and amp(F5) vs ToF respectively. At the following plots, both of them are shown (Left pic: ampF5 vs timeF5-timeF3, Right pic: ampF3 vs timeF5-timeF3)

ToF_cut.png

#3 - 11/15/2019 11:31 AM - Ivan Muzalevsky

- % Done changed from 0 to 100

#4 - 04/23/2020 12:45 AM - Vratislav Chudoba

- Subject changed from Particle identification to Particle identification from ToF

- Parent task changed from #393 to #459

#5 - 04/23/2020 01:06 AM - Vratislav Chudoba

- Project changed from EXP1904 to EXP1904: Reference reaction