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 ^{10}Be is 71%

The amount of ^{9}Li in the beam is 8.6%

The amount of ^{12}B 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