

EXP_6Be - Developing #439

Developing # 430 (Открыта): Simulations

Testing simulation based on 7H experiment

02/07/2020 02:03 AM - Vratislav Chudoba

Status:	Открыта	Start date:	02/07/2020
Priority:	Нормальный	Due date:	
Assignee:	Konstantin Limarev	% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:			
Description Take a working macros for simulation for EXP1904. It may be found in expertroot/macro/EXP1904_H7/sim branch 406_exp1904_h7_sim Step by step employ following changes: 1. delete the central telescope; 2. change the thickness of veto detector (third layer of side telescopes) to 10 cm; 3. introduce the reaction ${}^6\text{Li} + p \rightarrow {}^6\text{Be} + n$ with subsequent decay ${}^6\text{Be} \rightarrow {}^4\text{He} + p + p$; ◦ the decay occurs in the point of the reaction; ◦ beam cross-section is infinitely small; ◦ beam direction coincidences with the Z-axis in laboratory system; 4. delete the beam detector (ToF system and MWPC's) 5. reconstruct the ${}^6\text{Be}$ invariant mass under conditions: ◦ only one particle per telescope was registered; ◦ beam energy and size is constant and known; 6. replace the third layer of telescopes by CsI detector; Provide results of steps mentioned above in individual comments.			

History

#1 - 02/26/2020 11:02 PM - Konstantin Limarev

- File *func.cxx* added

I have deleted central telescopes from code as you can see in screenshot

Screenshot%20from%202020-02-27%2000-05-31.png
Screenshot of sim_digi.C

#2 - 02/27/2020 12:11 AM - Konstantin Limarev

- File *deleted (func.cxx)*

#3 - 02/27/2020 12:29 AM - Konstantin Limarev

- File *QTelescopeParts3.xml* added

I changed the thickness of veto detector (third layer of side telescopes) to 10 cm as you can see from screenshots of ROOT Browser and QTelescopeParts3.xml

Screenshot%20from%202020-02-27%2000-17-44.png
Screenshot of QTelescopeParts3.xml

Screenshot%20from%202020-02-27%2000-15-45.png
Screenshot of sim_digi.root opened with ROOT Browser

Files

QTelescopeParts3.xml	2.12 KB	02/27/2020	Konstantin Limarev
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