

Origin of Neutrons from Wang et. al.

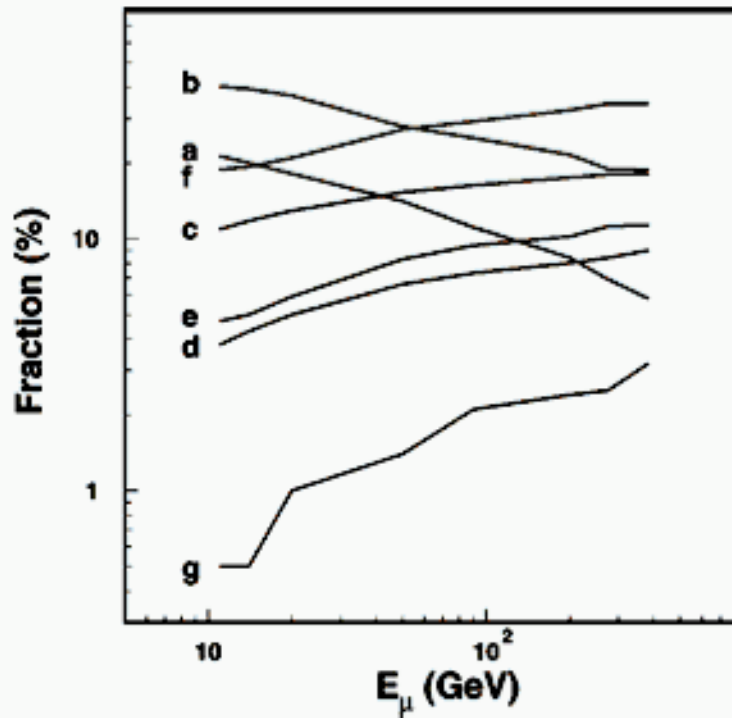


FIG. 3. Origin of neutrons: (a) direct muon spallation, (b) real photonuclear disintegration, (c) neutron spallation, (d) proton spallation, (e) π^+ spallation, (f) π^- spallation and capture, and (g) others.

In order to reproduce this result you need to look at the output of a `mgdraw.f` routine.

Parent	# n	%1	%2
gamma:	170.00	22.4	43.3
mu+:	0.00	0.0	0.0
mu-:	91.00	12.0	23.2
pi+:	13.00	1.7	3.3
pi-:	73.00	9.6	18.6
p:	14.00	1.8	3.6
n:	30.00	4.0	7.6
n(low) :	364.72	48.1	-
rest:	2.00	0.3	0.5

Results for
10.3 GeV
muons in
5m long
detector.

In units of n per muon g/cm²:

Yield from Wang et. al.: 2.5

Yield with n < 19.6MeV: 3.57 +/- 0.13

Yield without n < 19.6MeV: 1.85 +/- 0.09