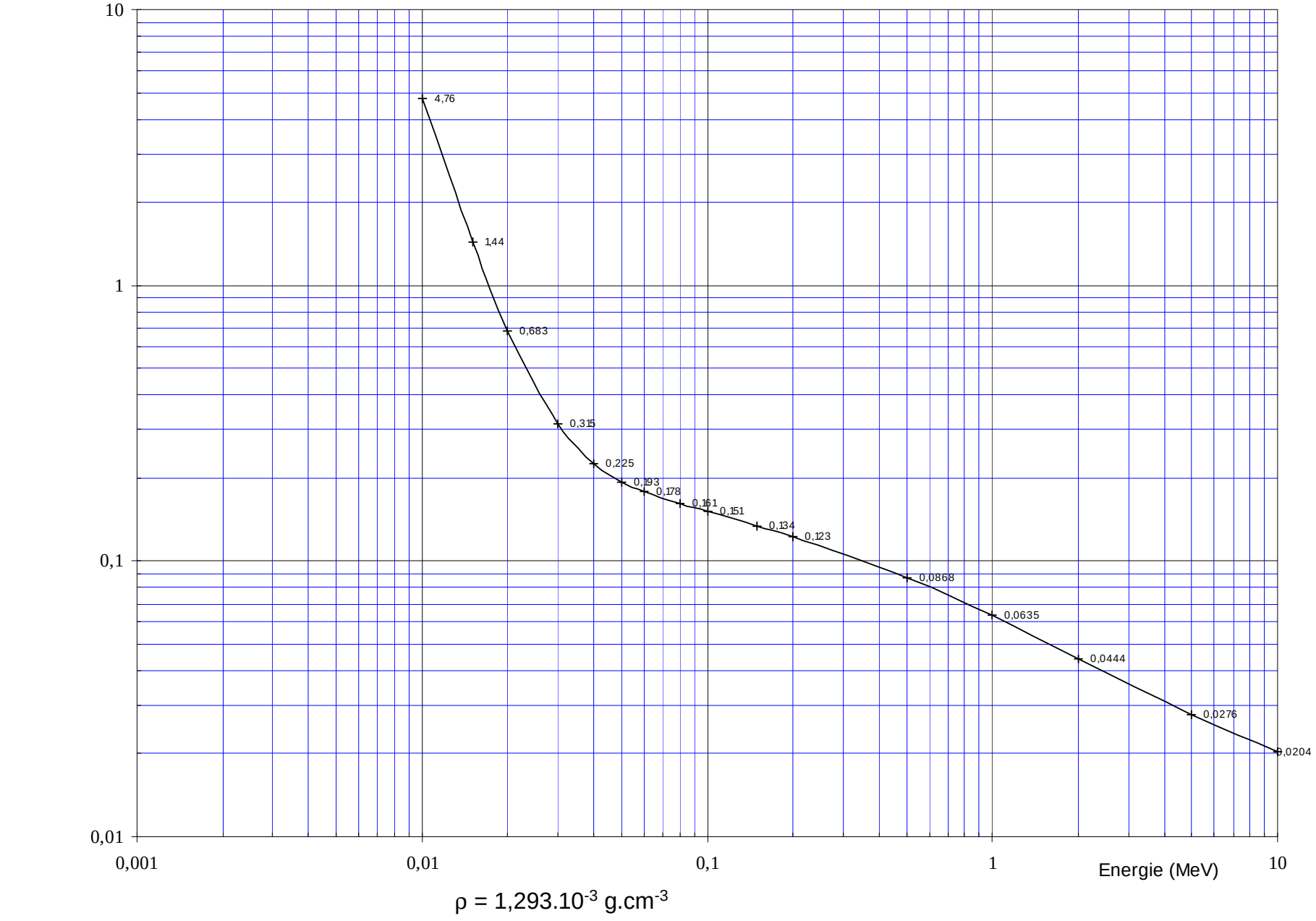
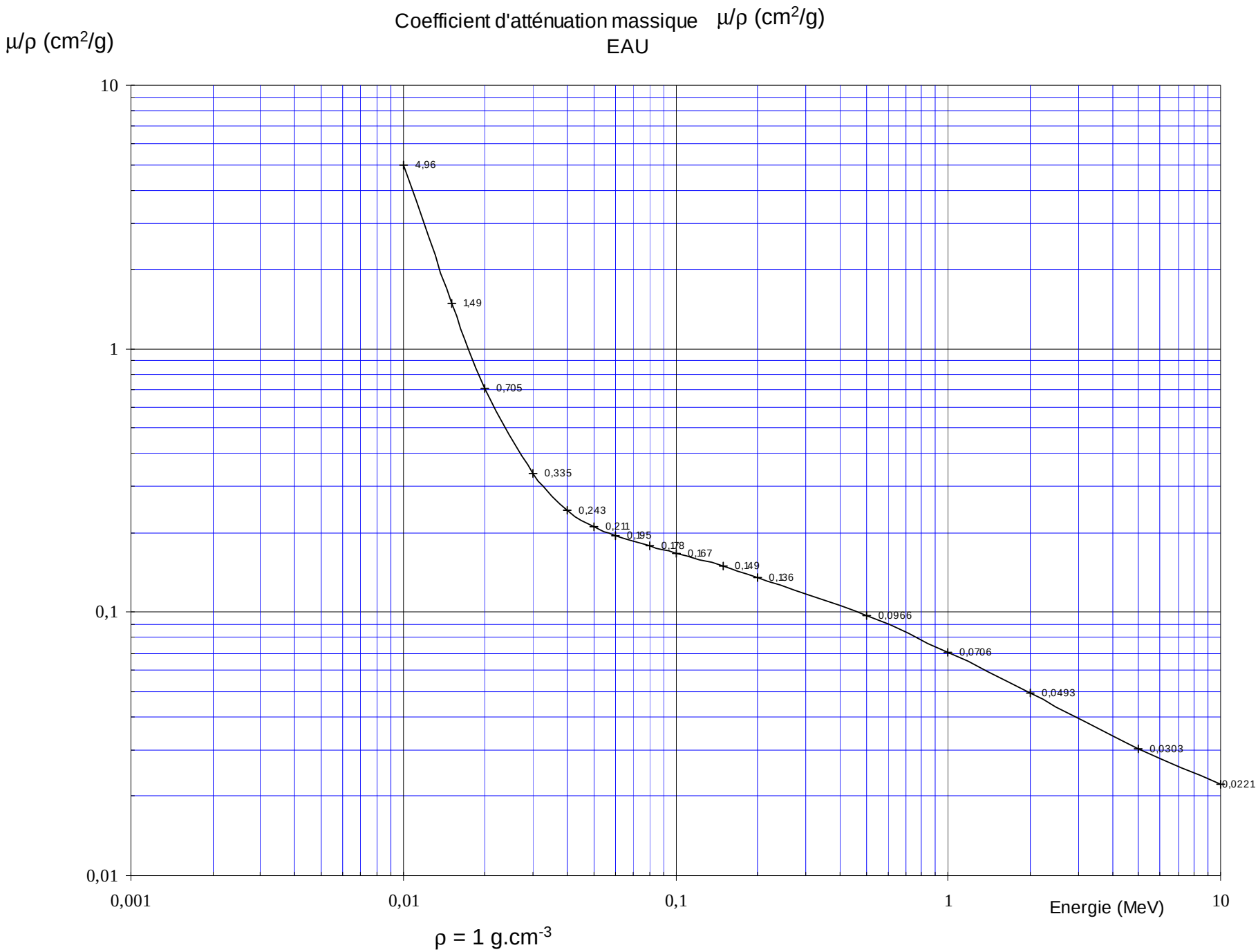
Coefficient d'atténuation massique μ/ρ (cm^2/g)

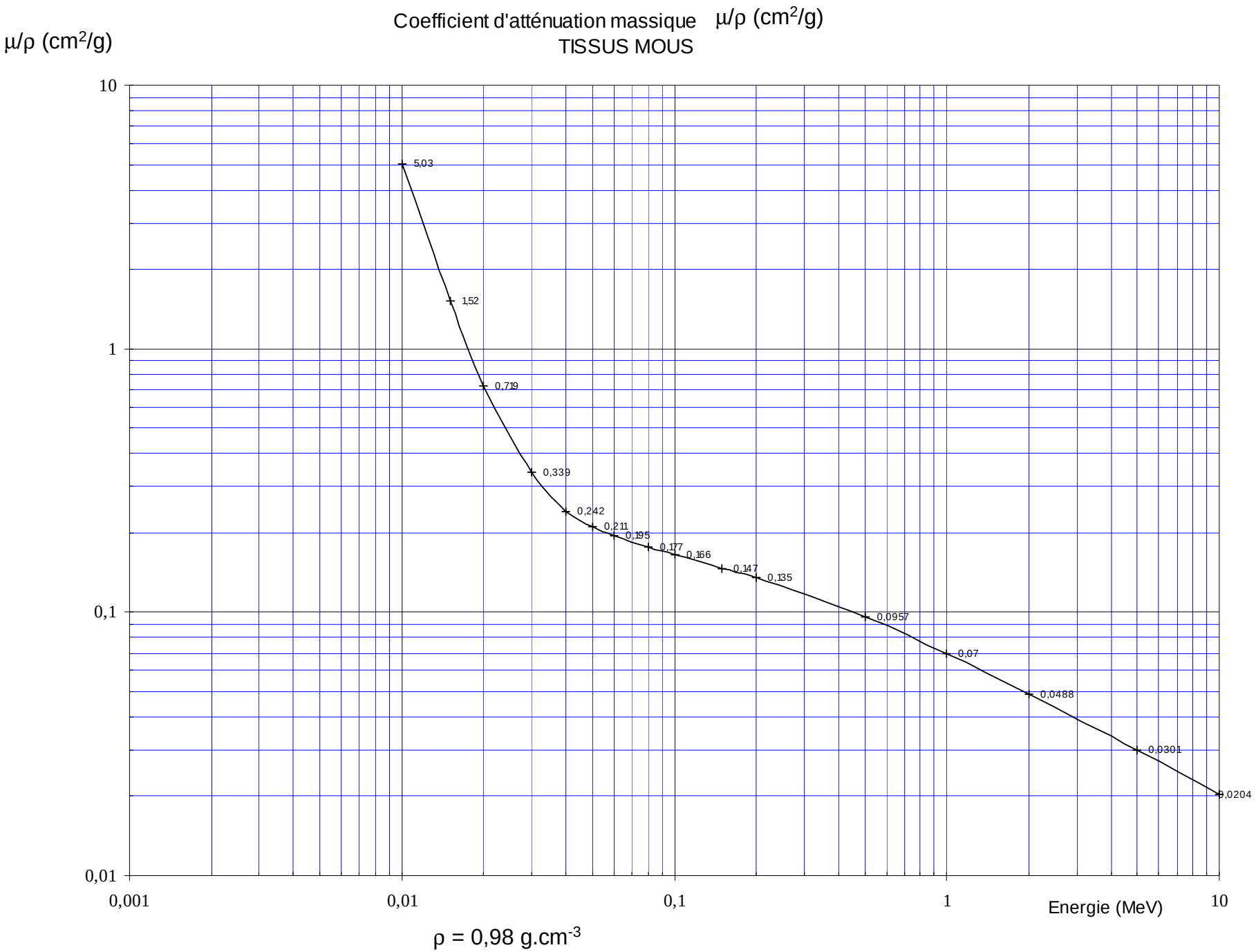
AIR



$\rho = 1{,}293.10^{-3}$ g.cm^{-3}

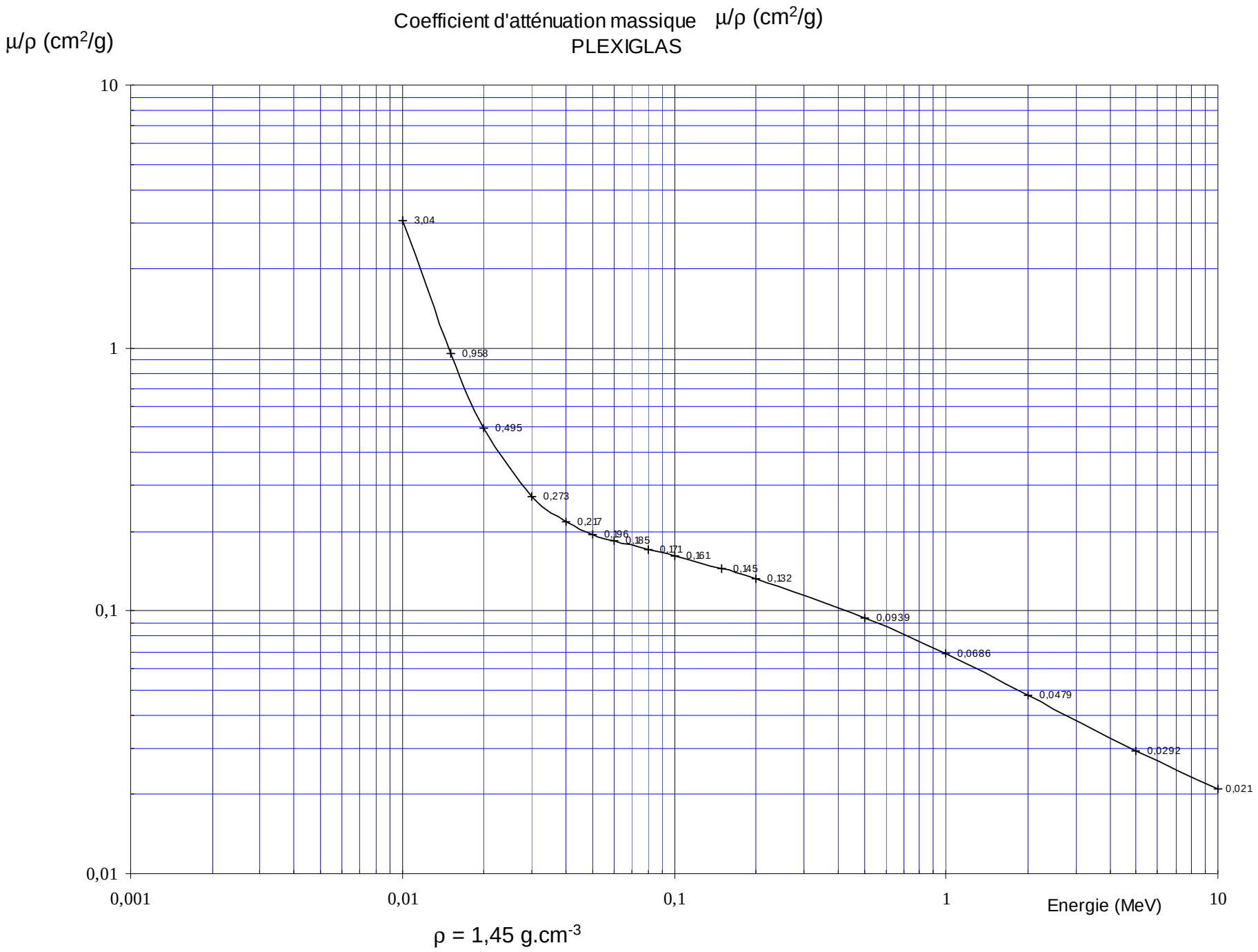

Coefficient d'atténuation massique μ/ρ (cm²/g)
EAU
μ/ρ (cm²/g)
10
1
0,1
0,01
4,96
1,49
0,705
0,335
0,243
0,211
0,195
0,178
0,167
0,149
0,136
0,0966
0,0706
0,0493
0,0303
0,0221
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 1 g.cm-3

Coefficient d'atténuation massique μ/ρ (cm^2/g)
TISSUS MOUS



ρ = 0,98 $g.cm^{-3}$

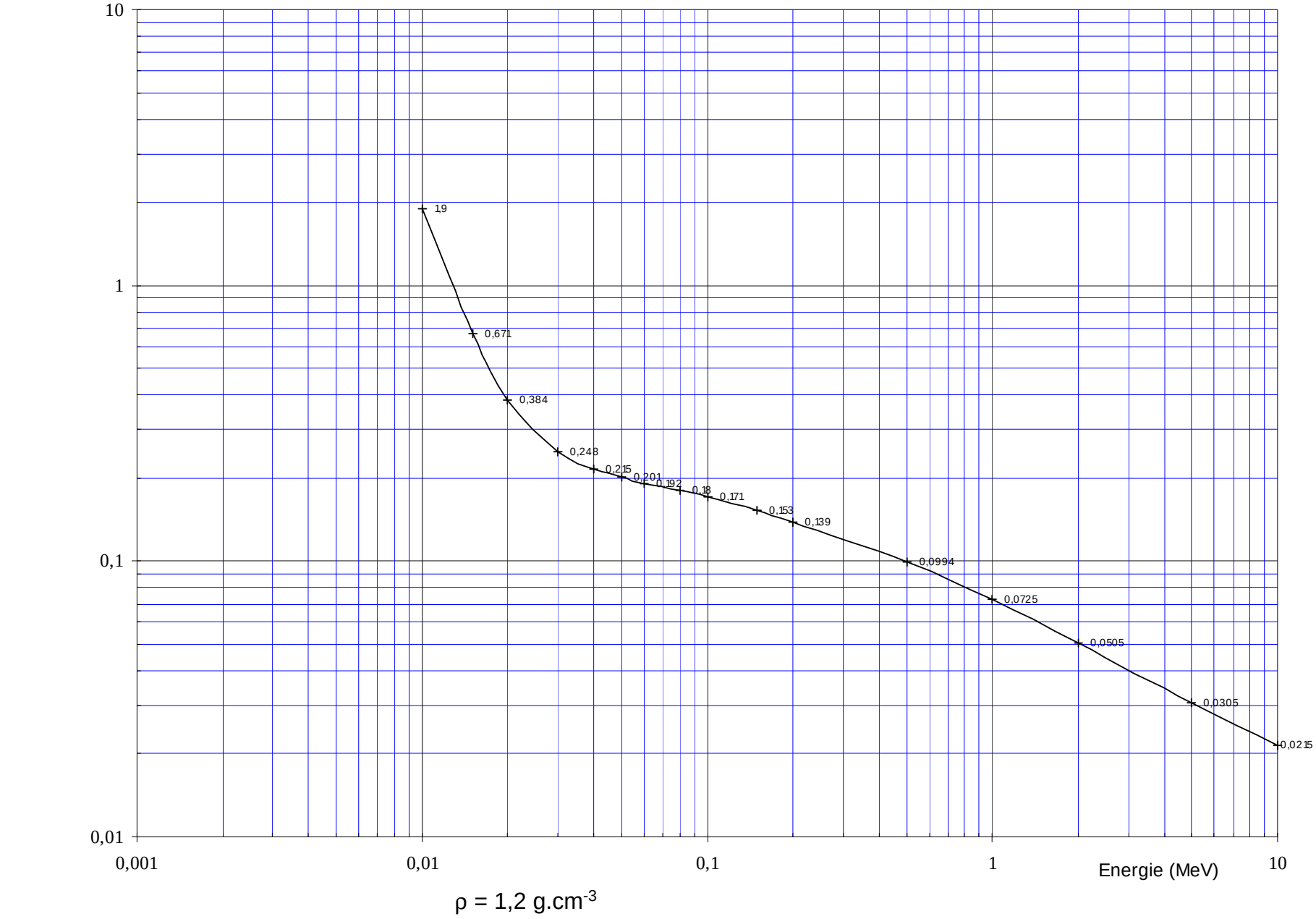
Coefficient d'atténuation massique μ/ρ (cm^2/g)
PLEXIGLAS



ρ = 1,45 $g.cm^{-3}$

Coefficient d'atténuation massique μ/ρ (cm^2/g)

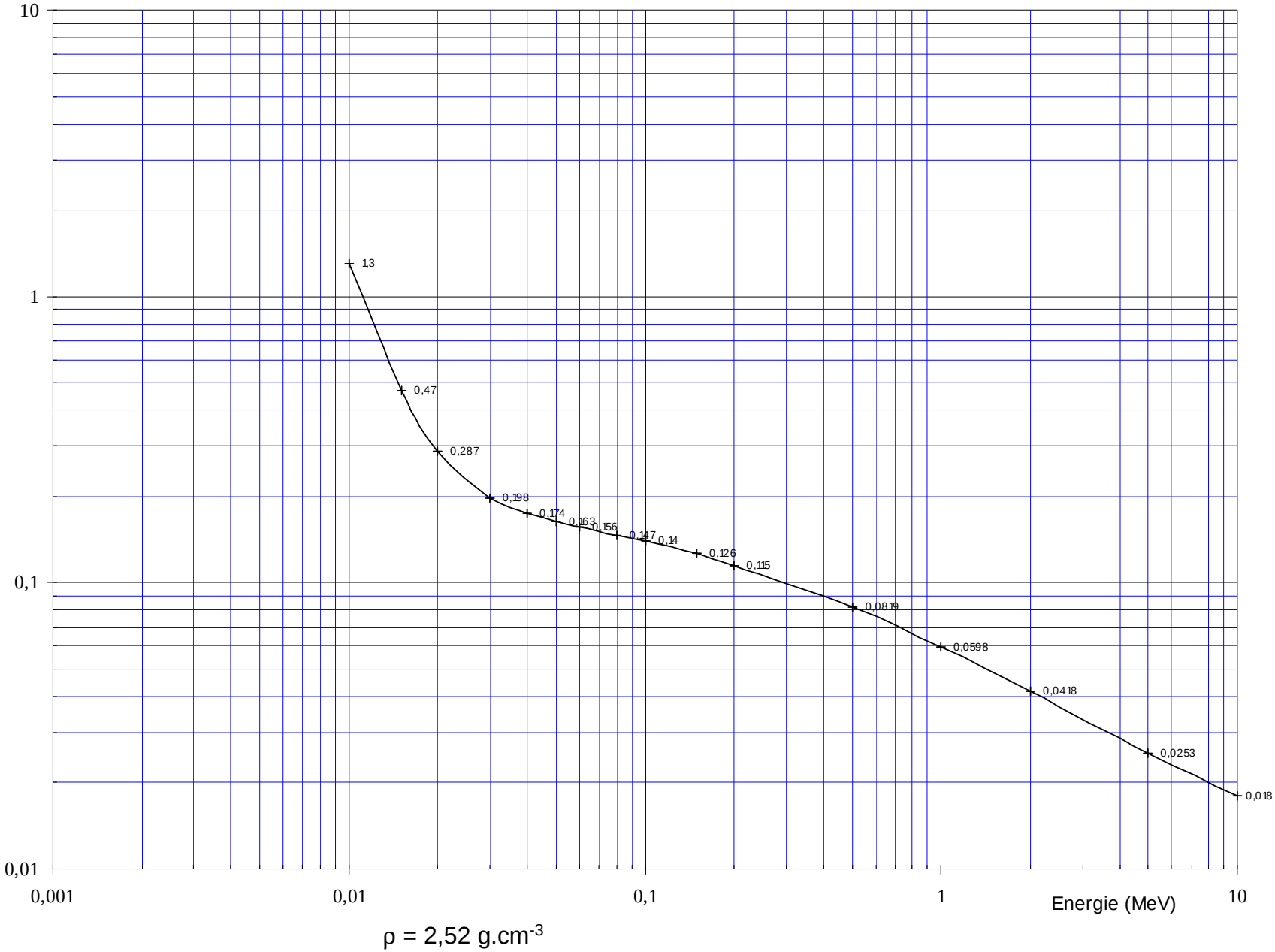
POLYETHYLENE



ρ = 1,2 $g.cm^{-3}$

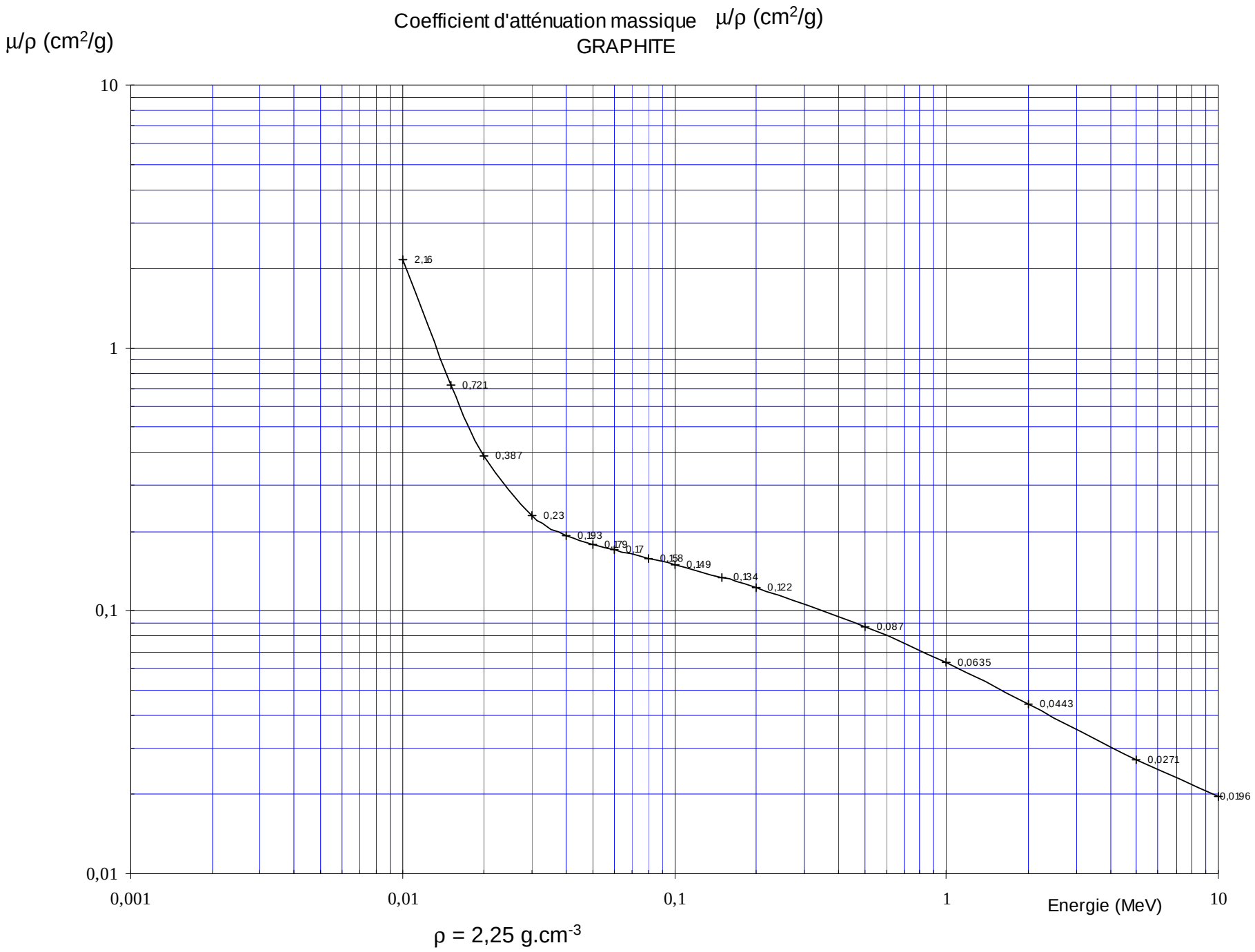
Coefficient d'atténuation massique μ/ρ (cm^2/g)

B4C

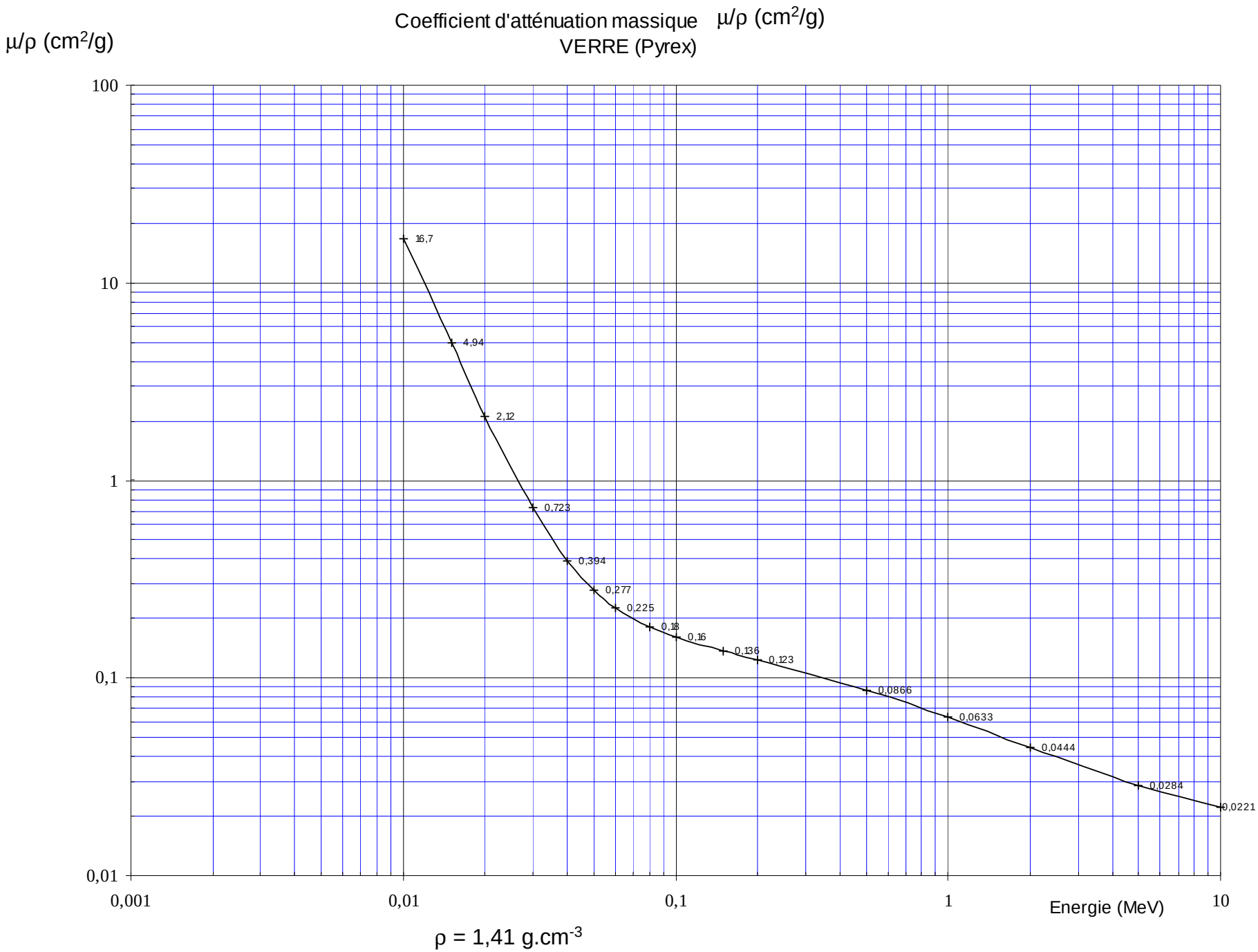


ρ = 2,52 $g.cm^{-3}$

Coefficient d'atténuation massique μ/ρ (cm^2/g)
GRAPHITE

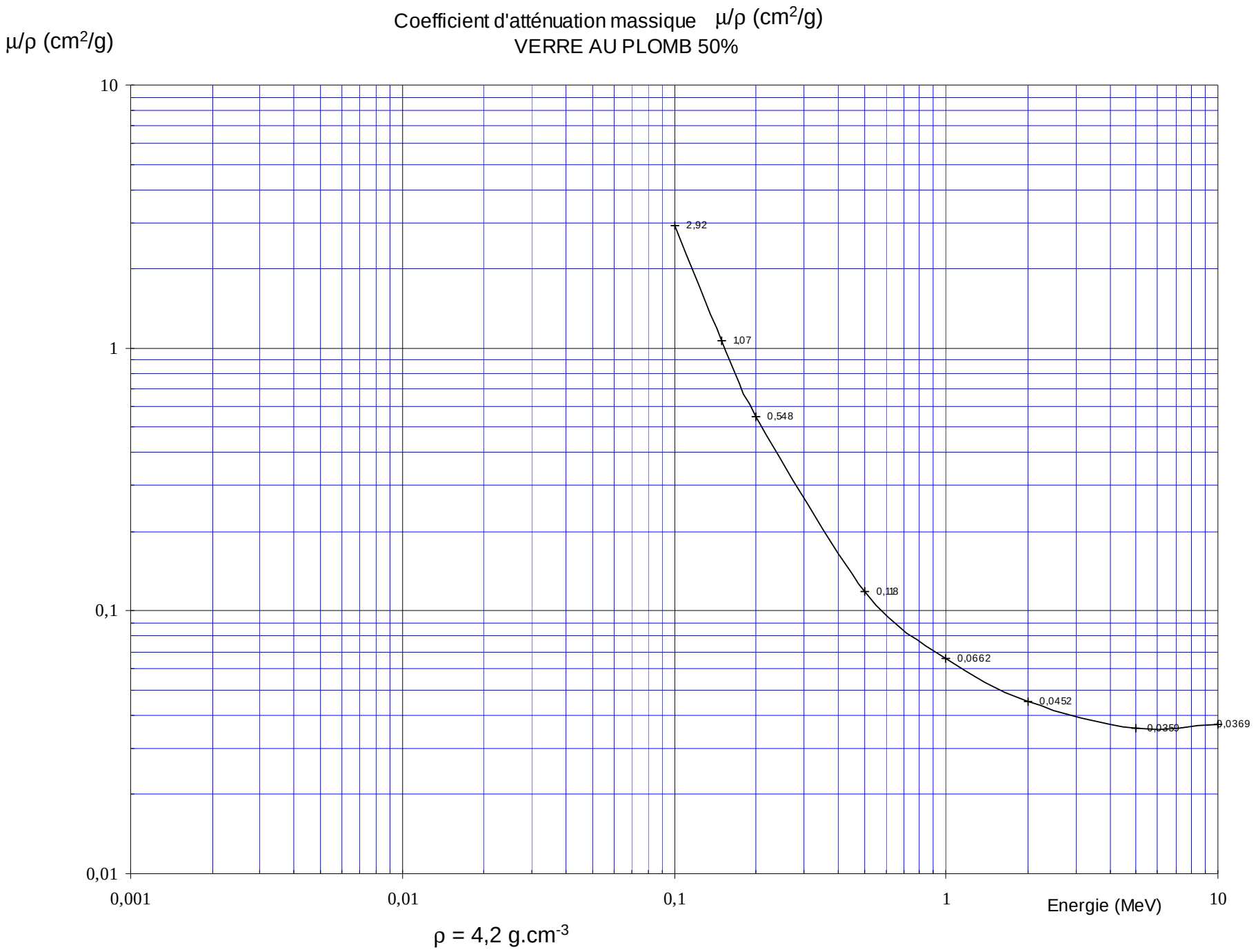


ρ = 2,25 $g.cm^{-3}$


Coefficient d'atténuation massique μ/ρ (cm²/g)
VERRE (Pyrex)
μ/ρ (cm²/g)
100
10
1
0,1
0,01
16,7
4,94
2,12
0,723
0,394
0,277
0,225
0,18
0,16
0,136
0,123
0,0866
0,0633
0,0444
0,0284
0,0221
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 1,41 g.cm-3

Coefficient d'atténuation massique μ/ρ (cm^2/g)

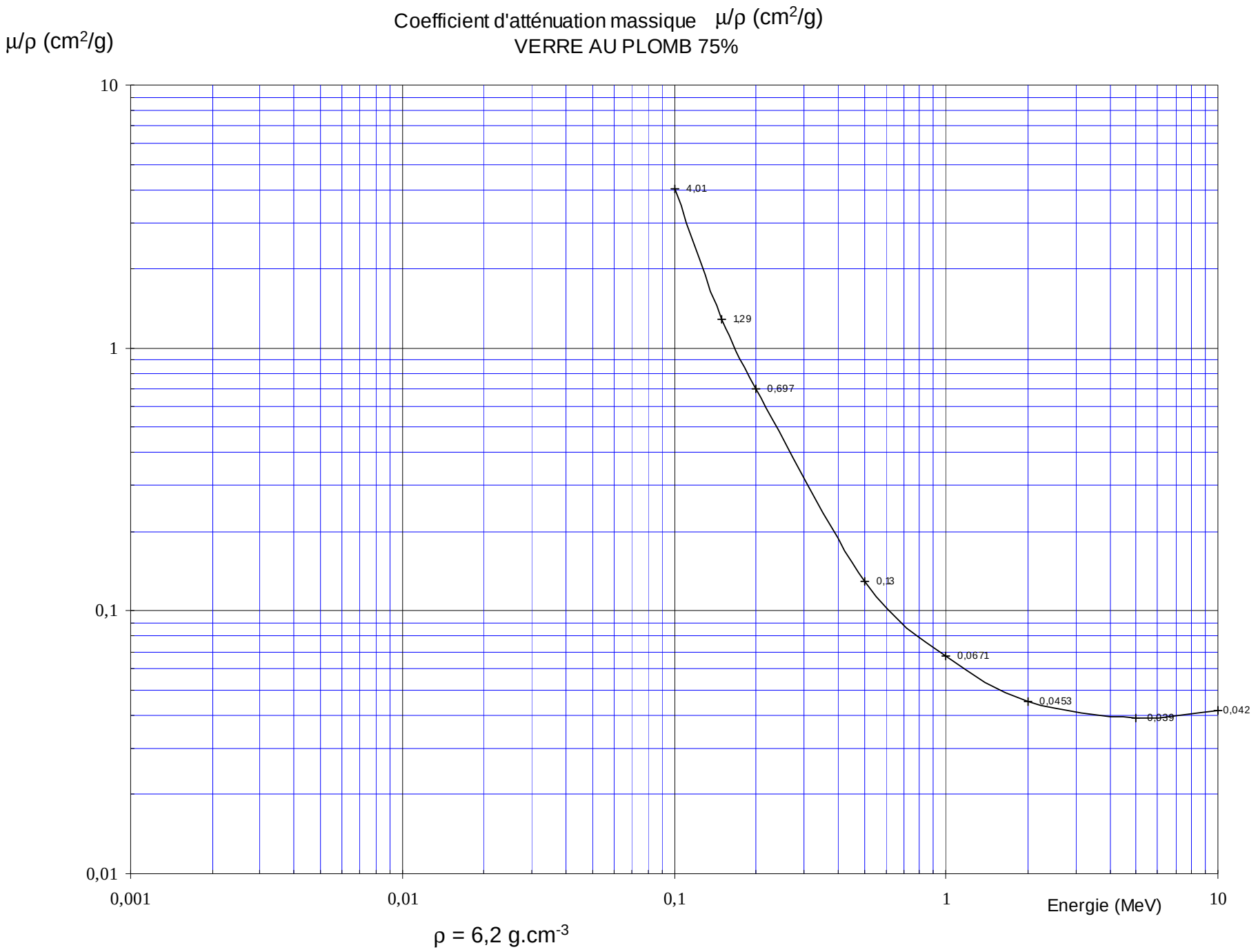
VERRE AU PLOMB 50%



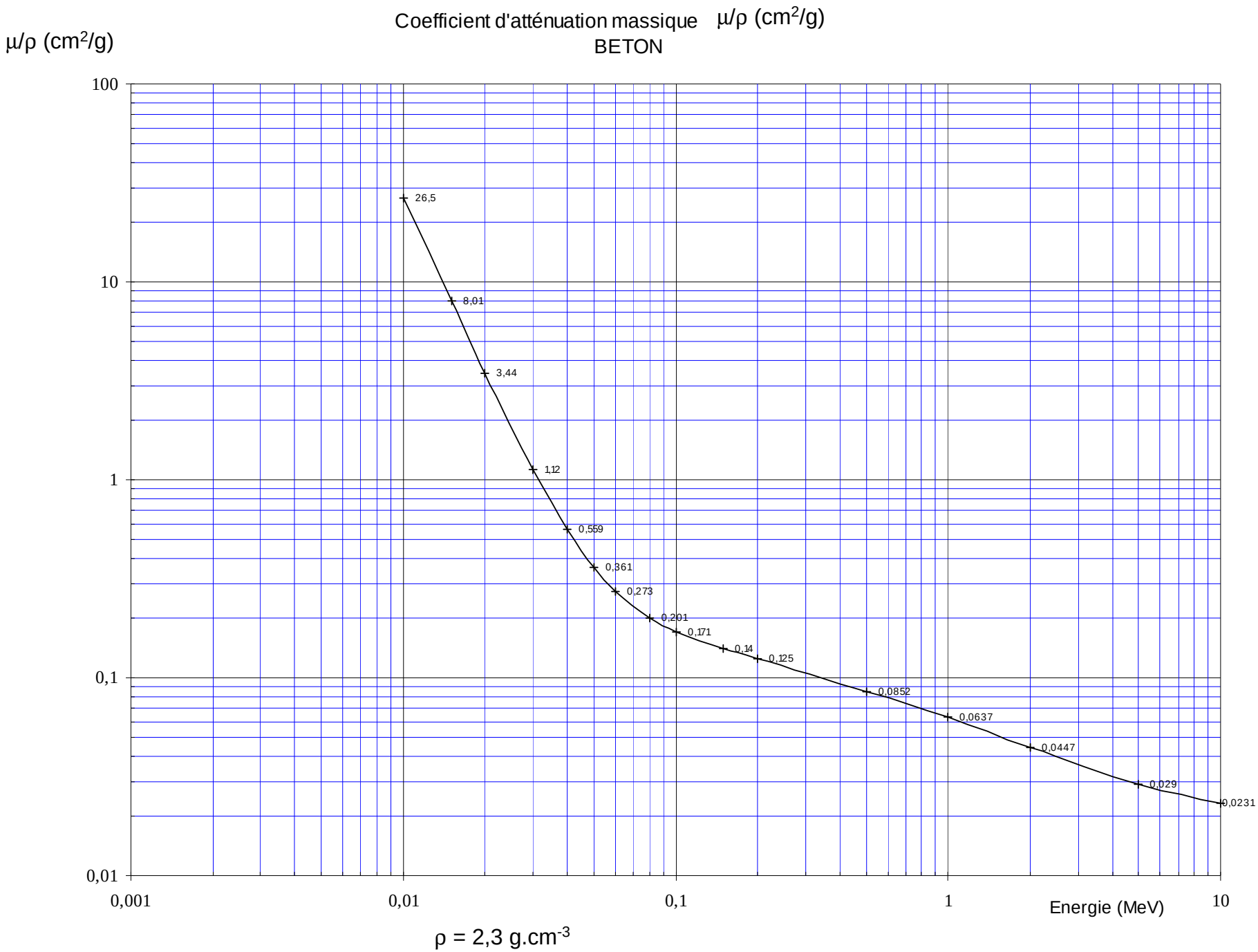
$\rho = 4,2\ g.cm^{-3}$

Coefficient d'atténuation massique μ/ρ (cm^2/g)

VERRE AU PLOMB 75%

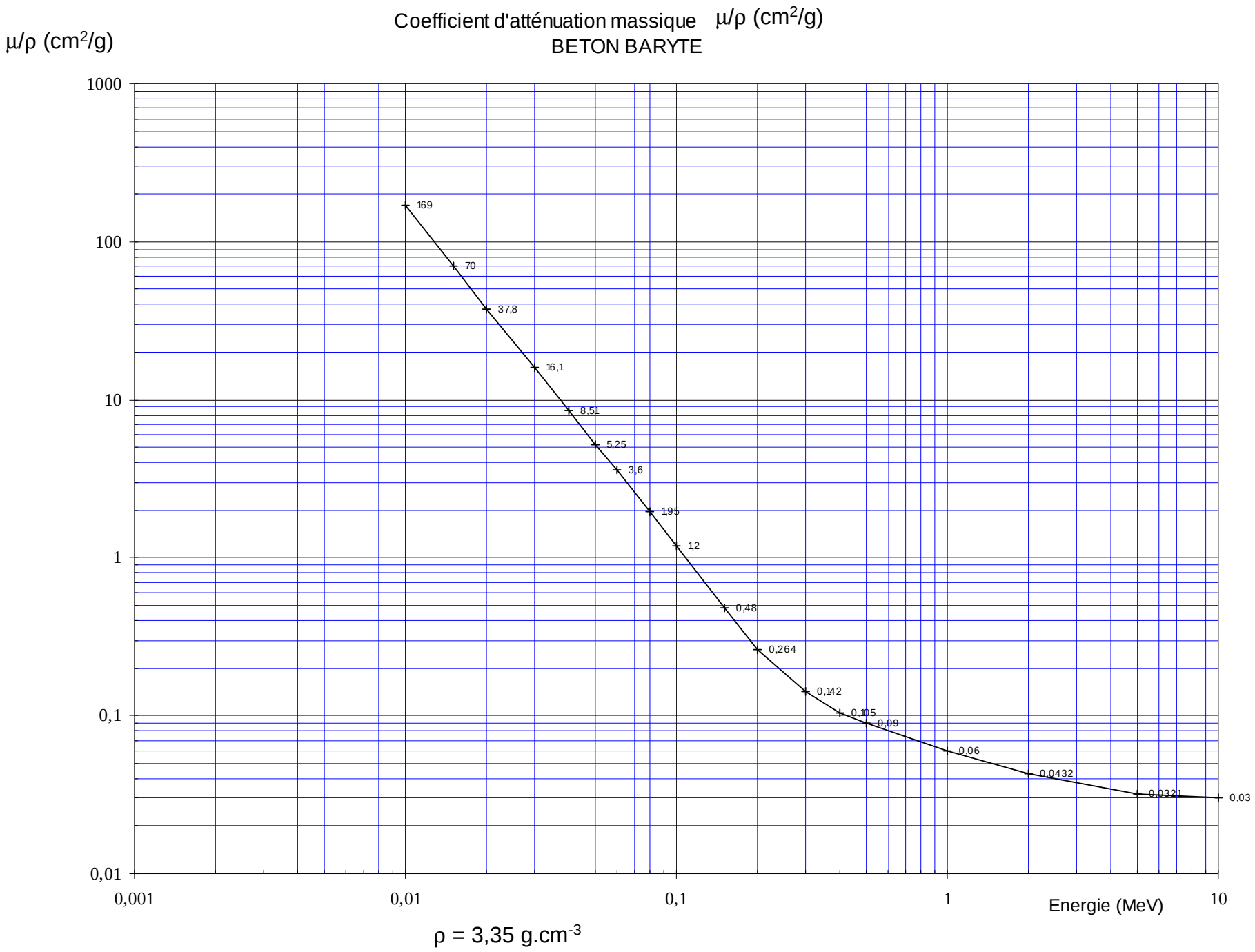


$\rho = 6,2\ g.cm^{-3}$


Coefficient d'atténuation massique μ/ρ (cm²/g)
BETON
μ/ρ (cm²/g)
100
10
1
0,1
0,01
26,5
8,01
3,44
1,12
0,559
0,361
0,273
0,201
0,171
0,14
0,125
0,0852
0,0637
0,0447
0,029
0,0231
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 2,3 g.cm-3

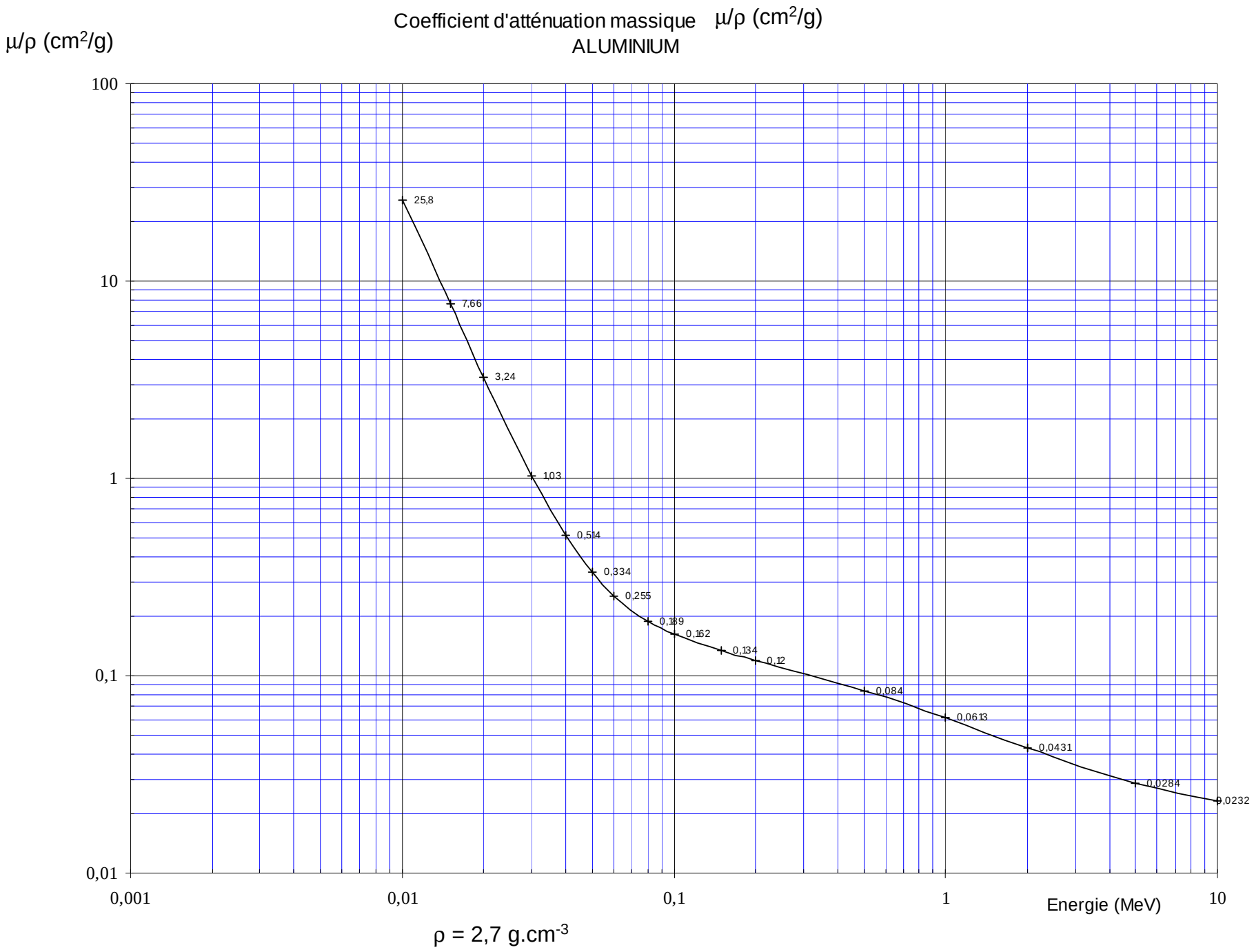
Coefficient d'atténuation massique μ/ρ (cm^2/g)

BETON BARYTE

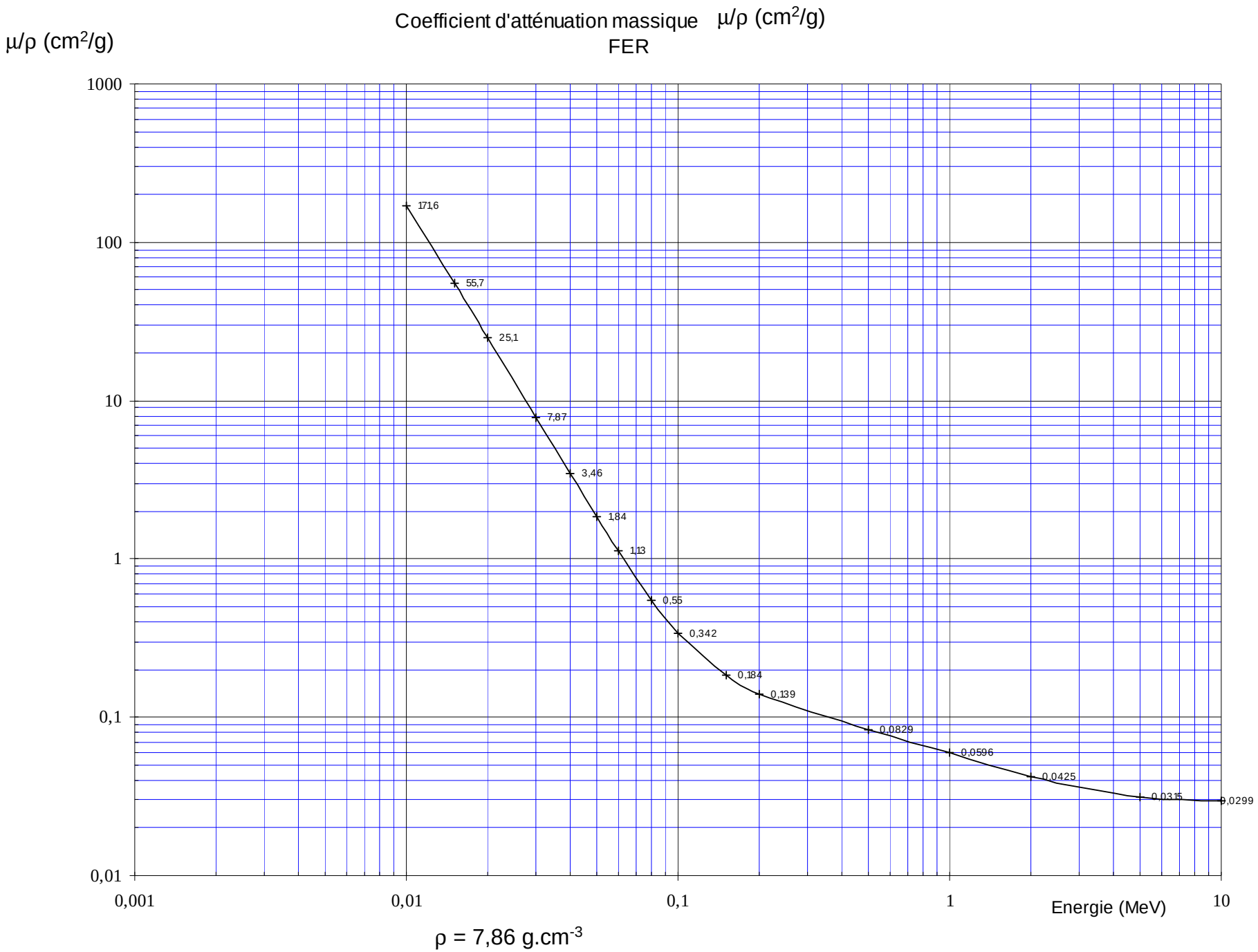


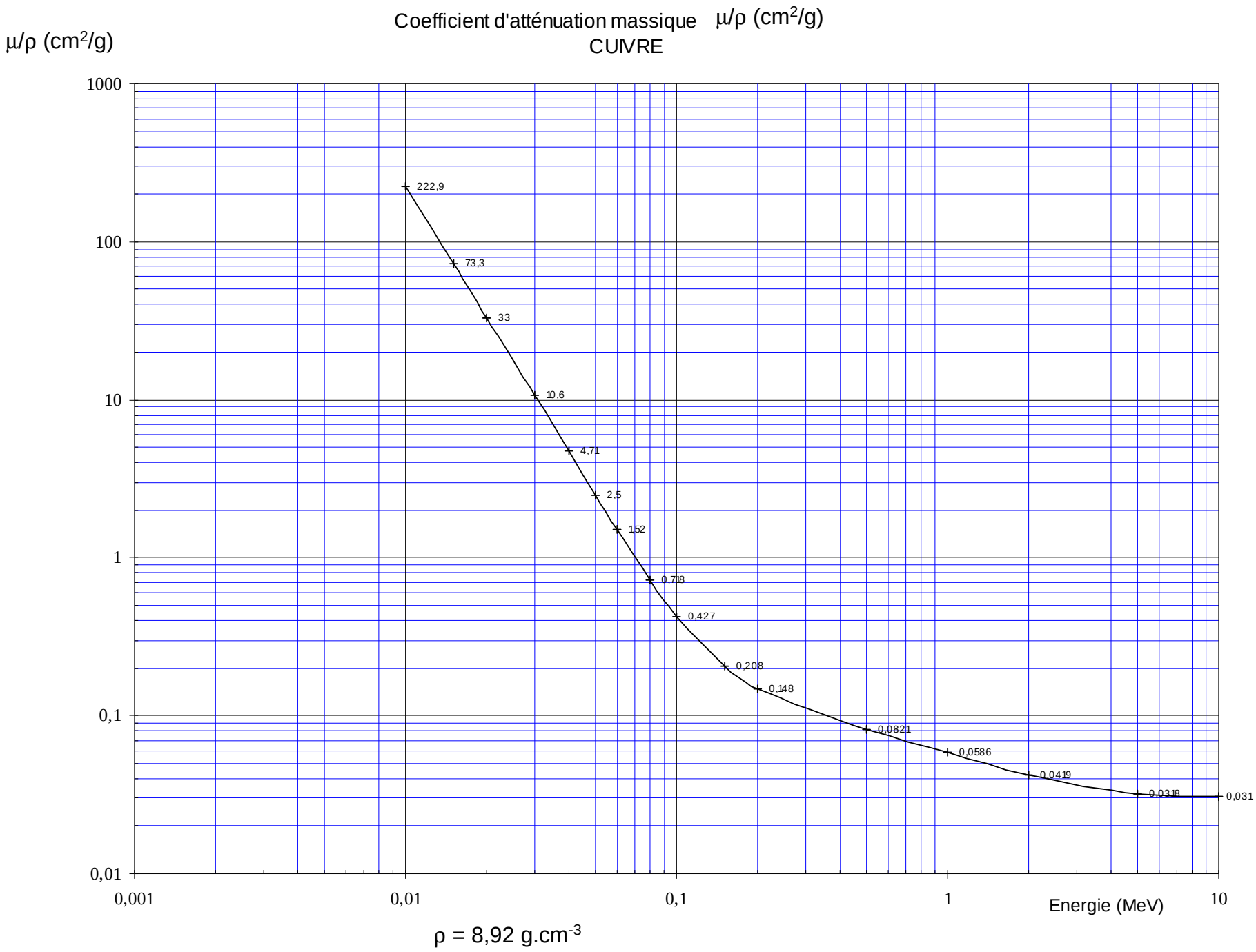
$\rho = 3{,}35\ g.cm^{-3}$

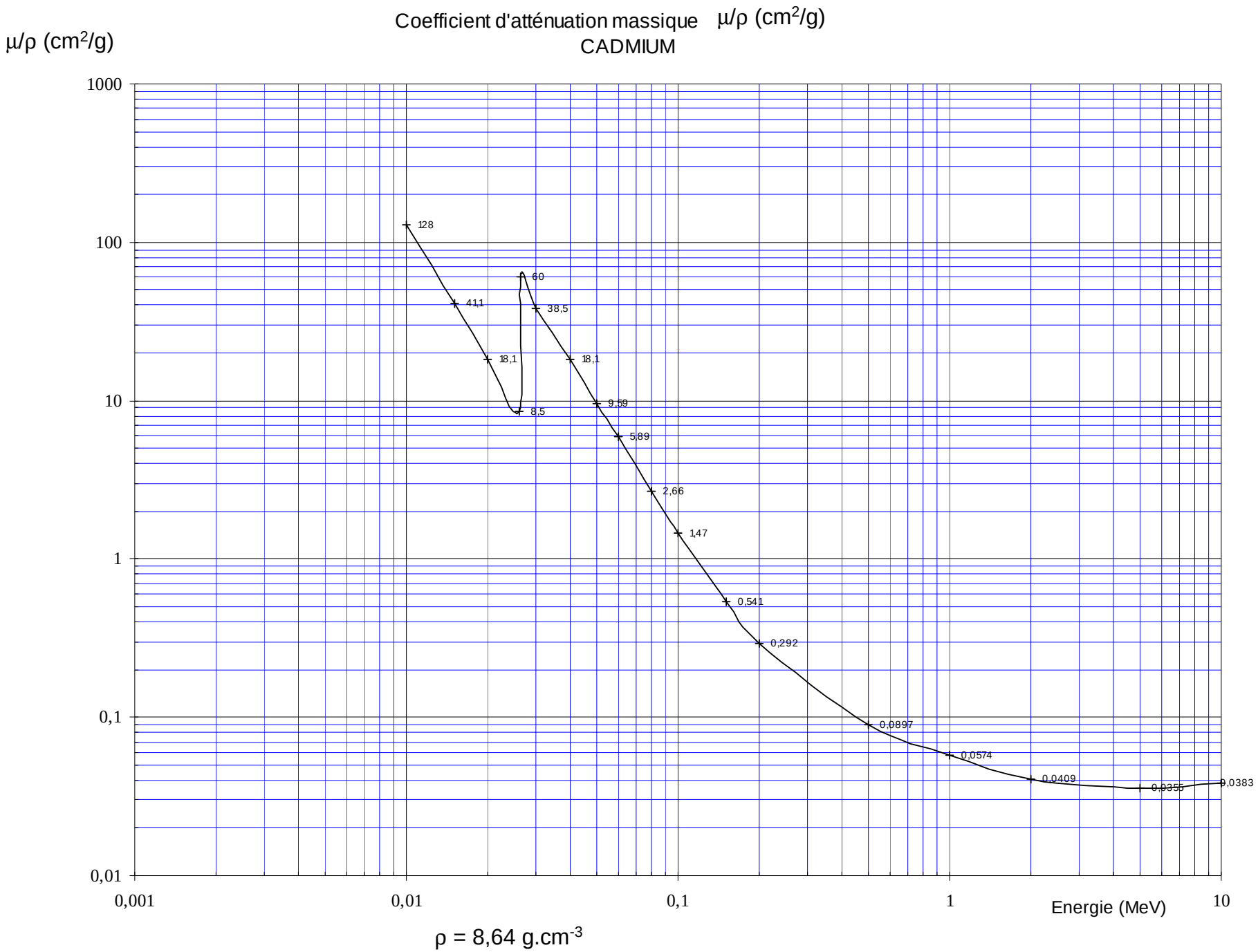
Coefficient d'atténuation massique μ/ρ (cm^2/g)
ALUMINIUM

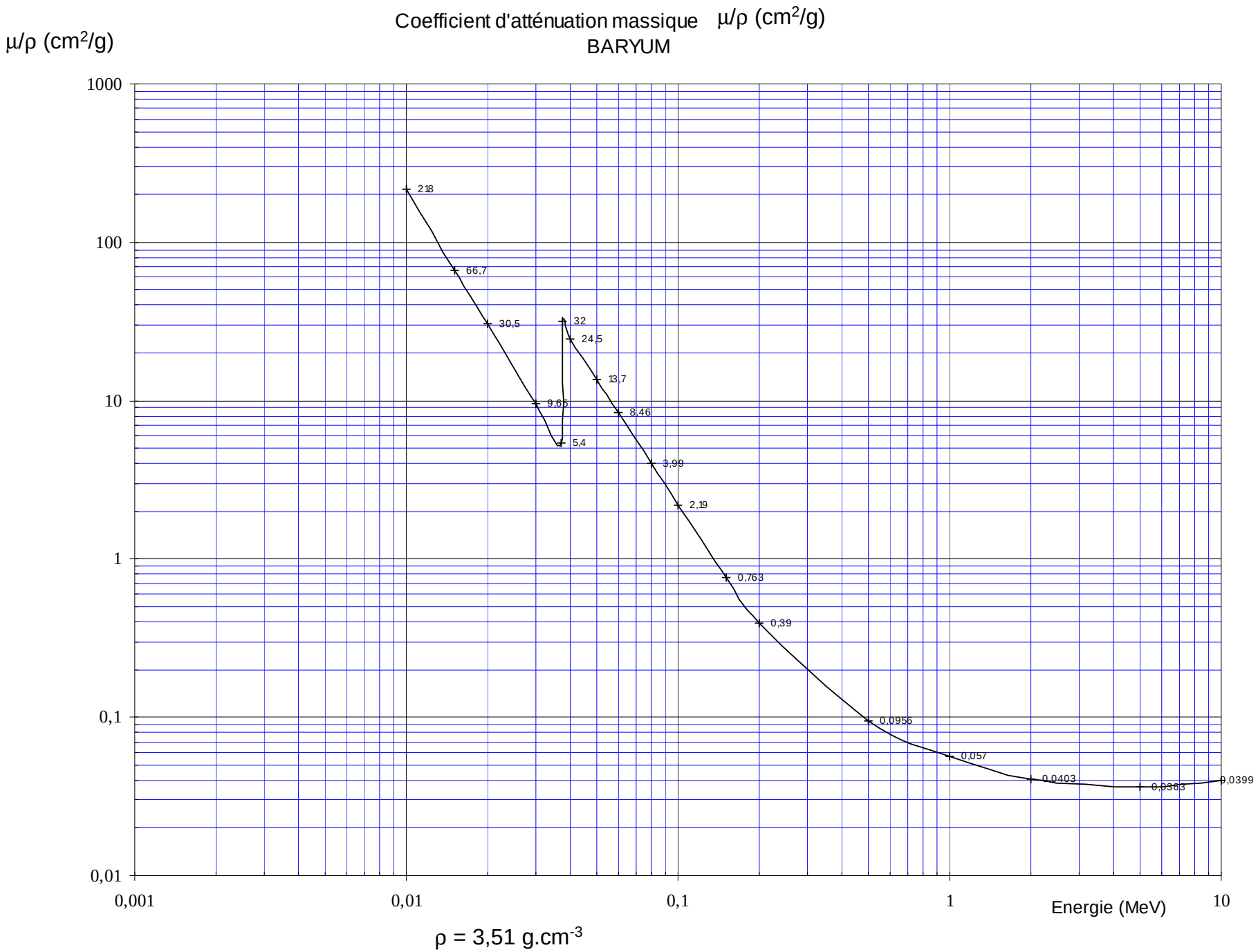


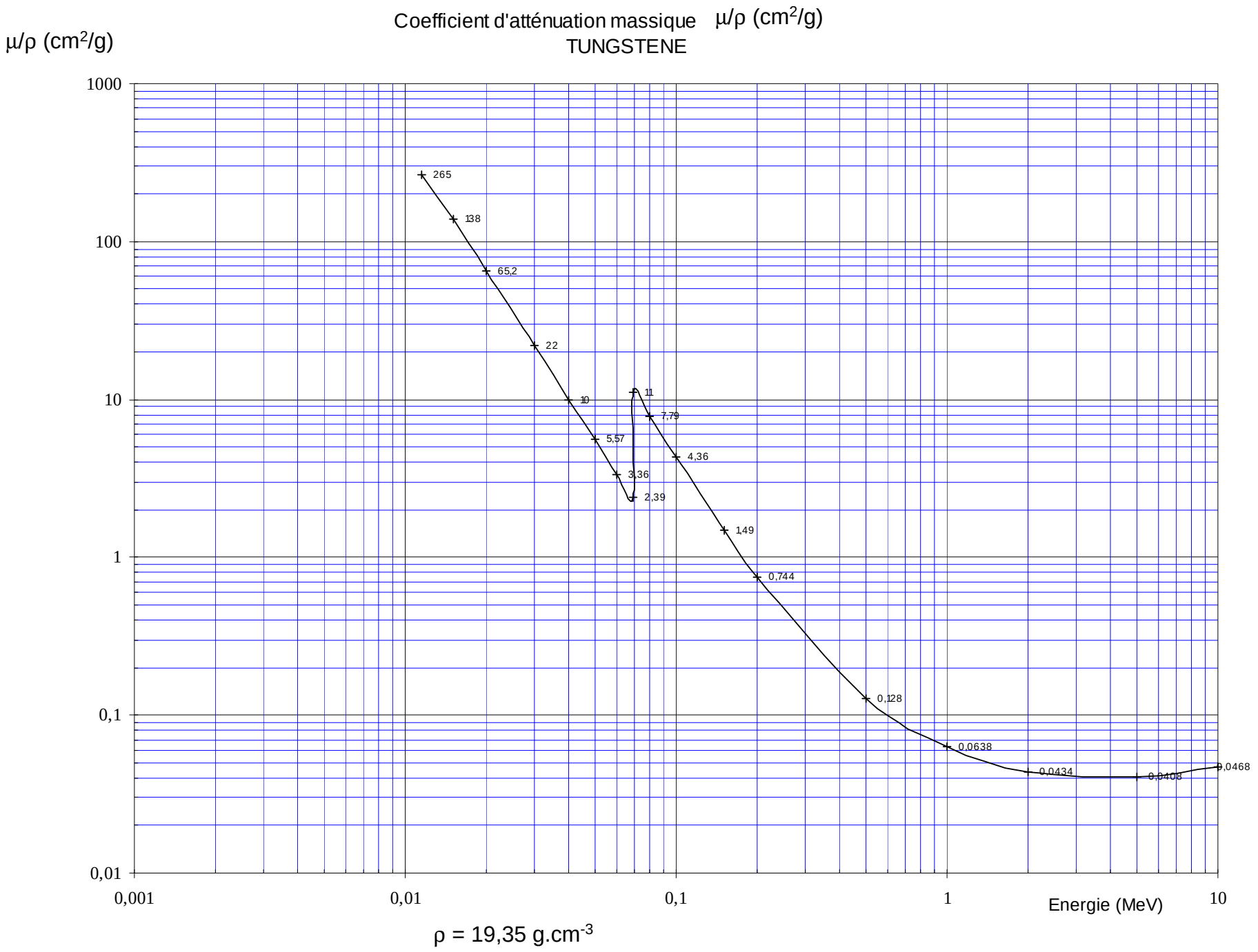
$\rho = 2,7\ g.cm^{-3}$

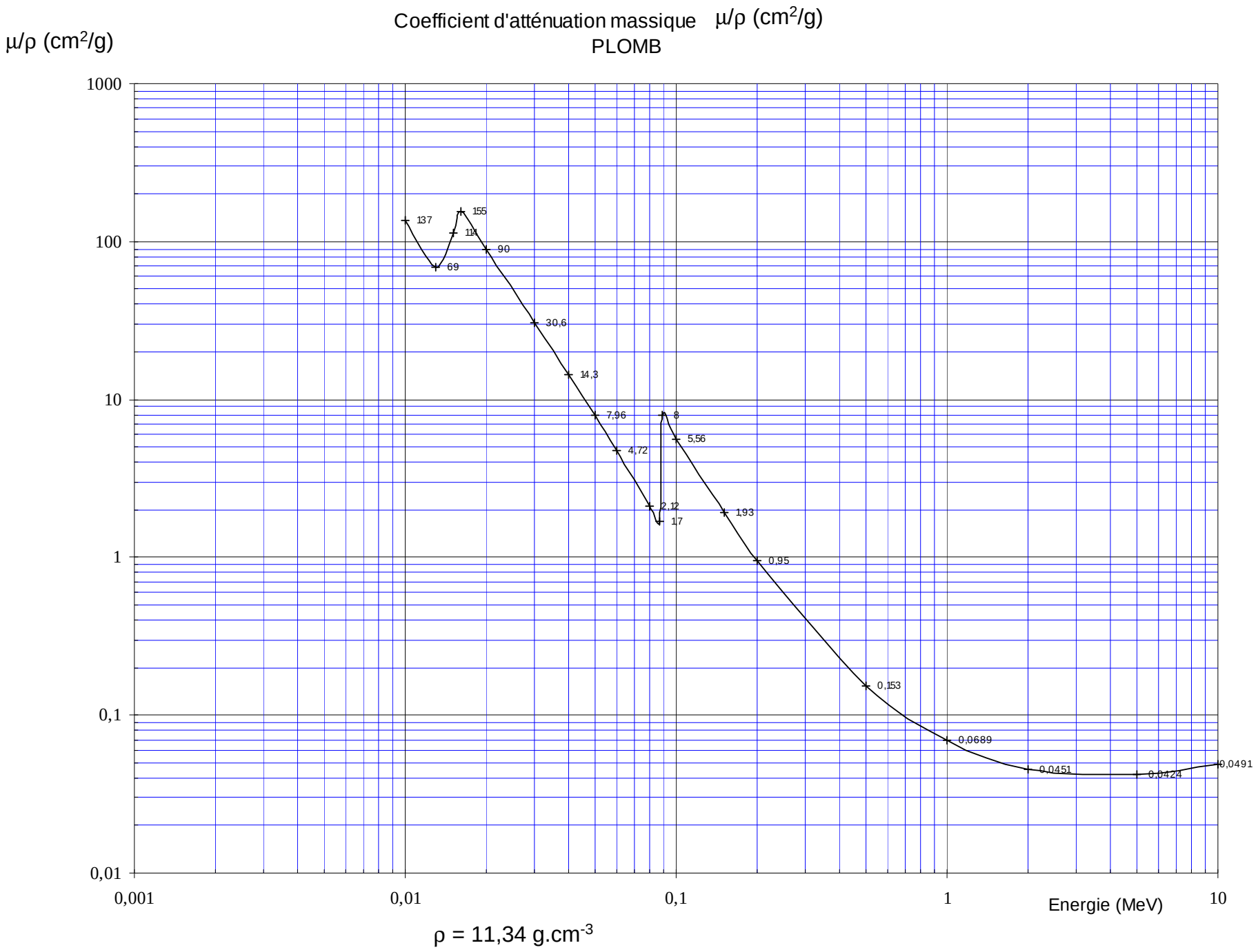

Coefficient d'atténuation massique μ/ρ (cm²/g)
FER
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
171,6
55,7
25,1
7,87
3,46
1,84
1,13
0,55
0,342
0,184
0,139
0,0829
0,0596
0,0425
0,0315
0,0299
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 7,86 g.cm-3

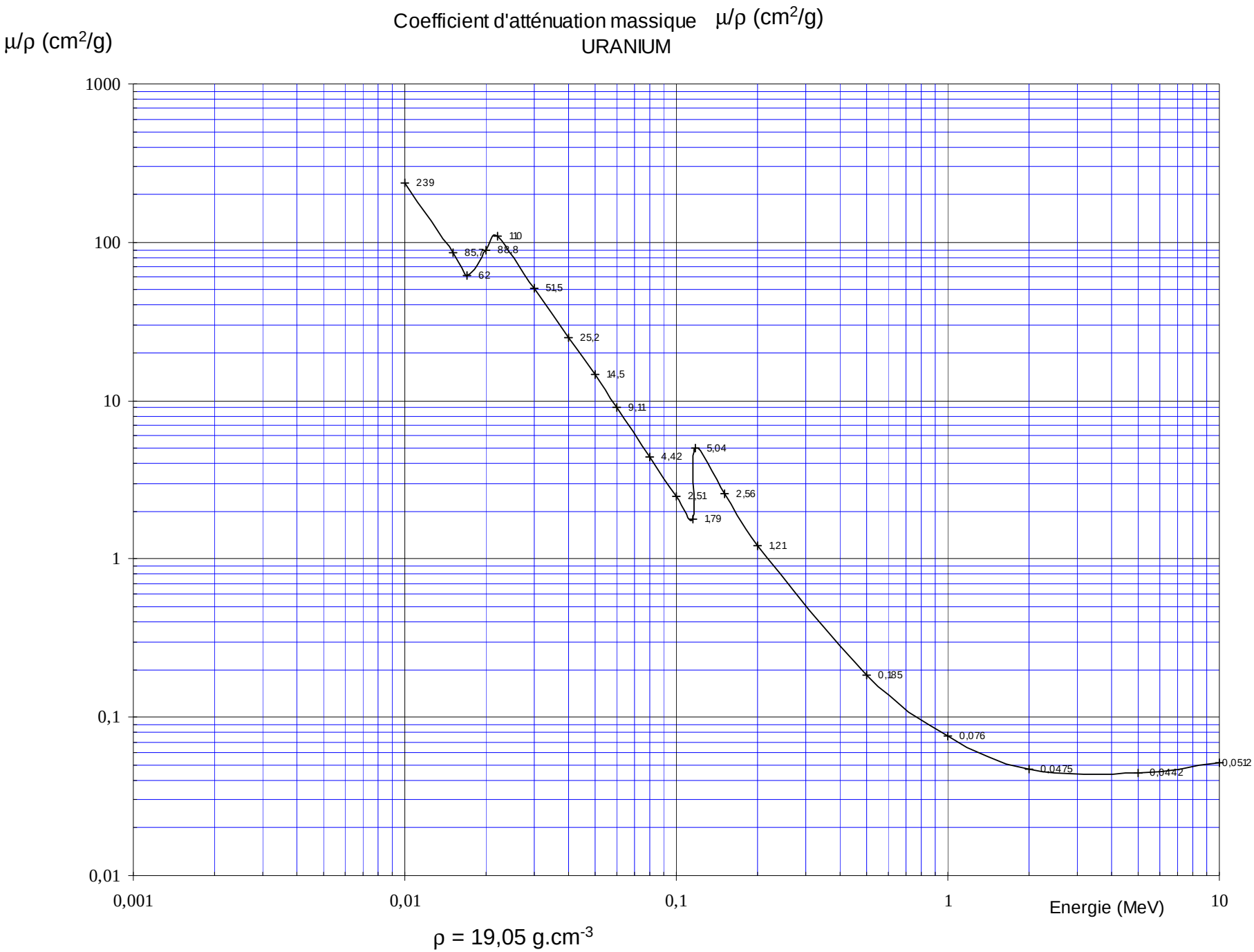

Coefficient d'atténuation massique μ/ρ (cm²/g)
CUIVRE
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
222,9
73,3
33
10,6
4,71
2,5
1,52
0,718
0,427
0,208
0,148
0,0821
0,0586
0,0419
0,0318
0,031
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 8,92 g.cm-3


Coefficient d'atténuation massique μ/ρ (cm²/g)
CADMIUM
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
0,001
0,01
0,1
1
10
Energie (MeV)
128
60
41,1
38,5
18,1
18,1
8,5
9,59
5,89
2,66
1,47
0,541
0,292
0,0897
0,0574
0,0409
0,0355
0,0383
ρ = 8,64 g.cm-3


Coefficient d'atténuation massique μ/ρ (cm²/g)
BARYUM
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
0,001
0,01
0,1
1
10
Energie (MeV)
218
66,7
30,5
32
24,5
13,7
9,65
8,46
5,4
3,99
2,19
0,763
0,39
0,0956
0,057
0,0403
0,0363
0,0399
ρ = 3,51 g.cm-3


Coefficient d'atténuation massique μ/ρ (cm²/g)
TUNGSTENE
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
265
138
65,2
22
10
11
7,79
5,57
4,36
3,36
2,39
1,49
0,744
0,128
0,0638
0,0434
0,0408
0,0468
0,001
0,01
0,1
1
10
Energie (MeV)
ρ = 19,35 g.cm-3


Coefficient d'atténuation massique μ/ρ (cm²/g)
PLOMB
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
0,001
0,01
0,1
1
10
Energie (MeV)
137
155
114
90
69
30,6
14,3
7,96
8
5,56
4,72
2,12
17
1,93
0,95
0,153
0,0689
0,0451
0,0424
0,0491
ρ = 11,34 g.cm-3


Coefficient d'atténuation massique μ/ρ (cm²/g)
URANIUM
μ/ρ (cm²/g)
1000
100
10
1
0,1
0,01
0,001
0,01
0,1
1
10
Energie (MeV)
239
110
88,8
85,7
62
51,5
25,2
14,5
9,11
5,04
4,42
2,51
2,56
1,79
1,21
0,185
0,076
0,0475
0,0442
0,0512
ρ = 19,05 g.cm-3