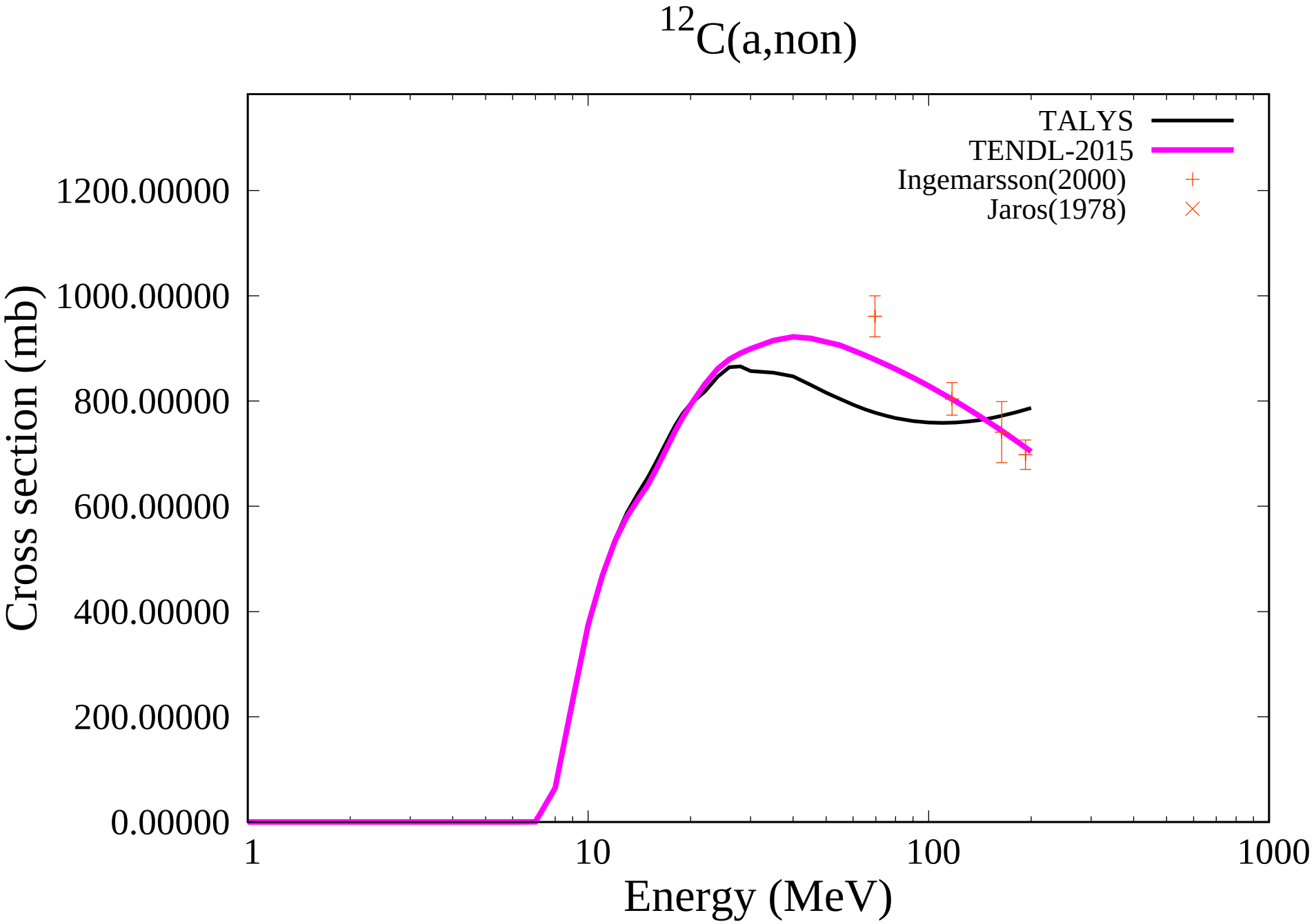
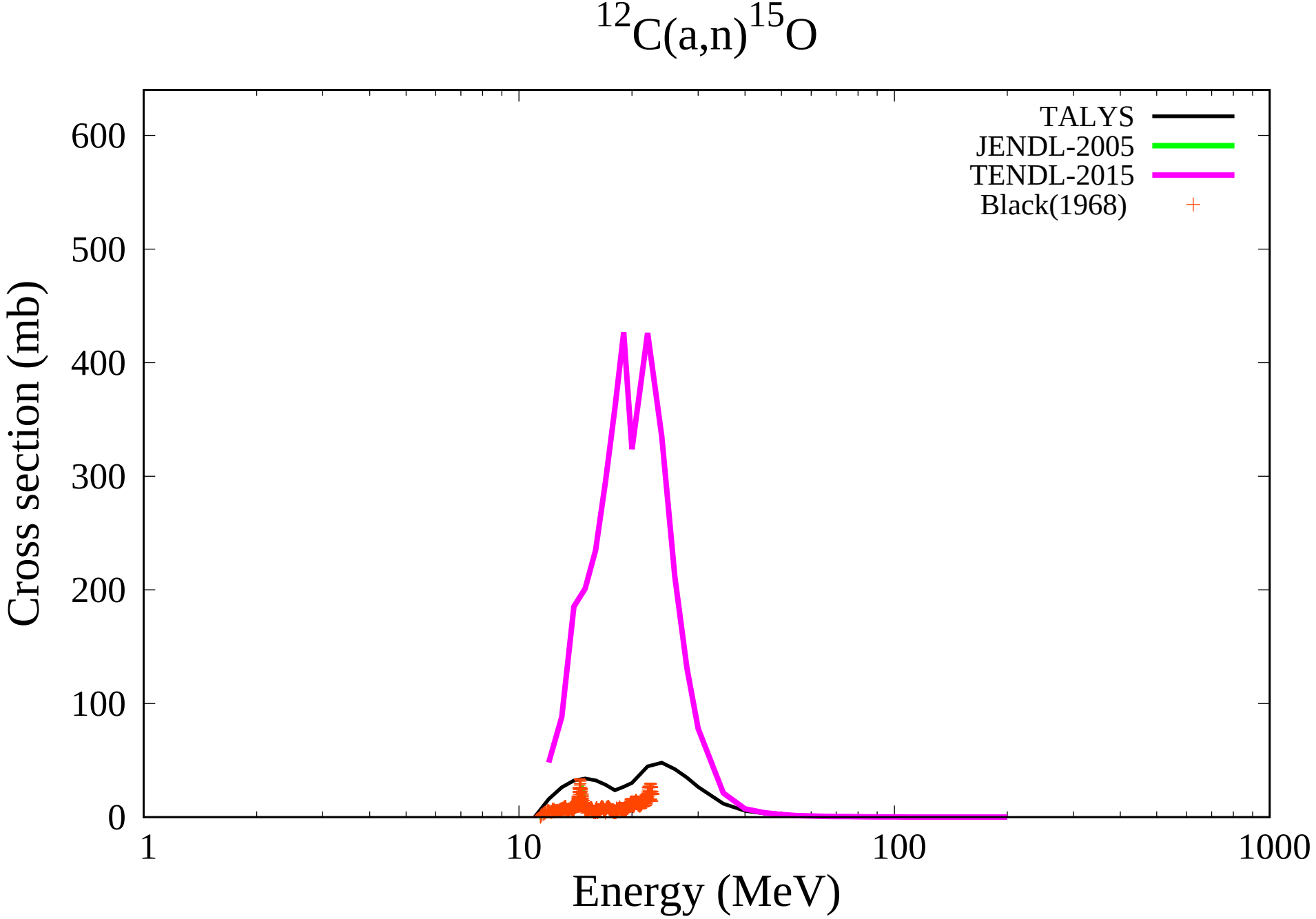
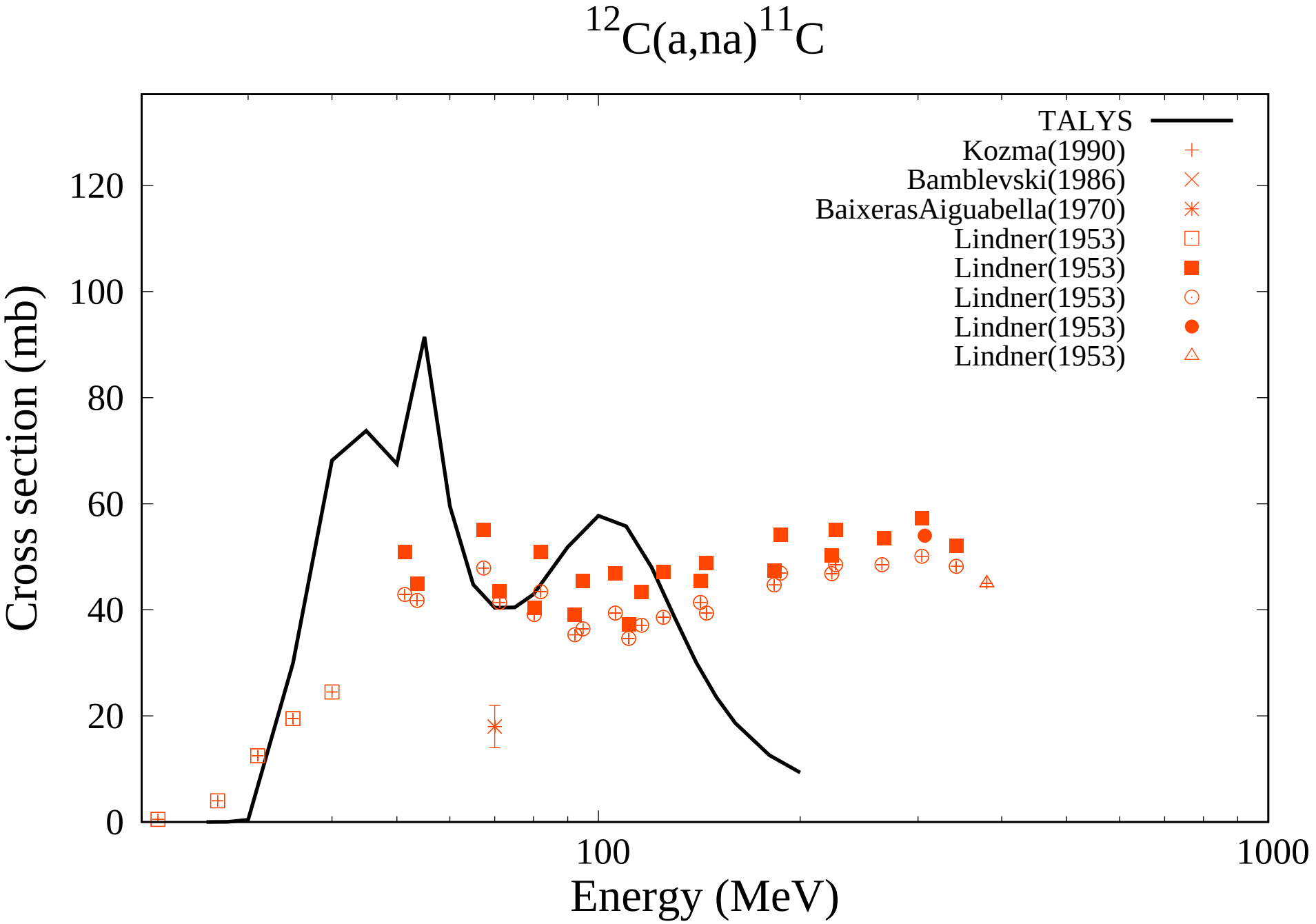
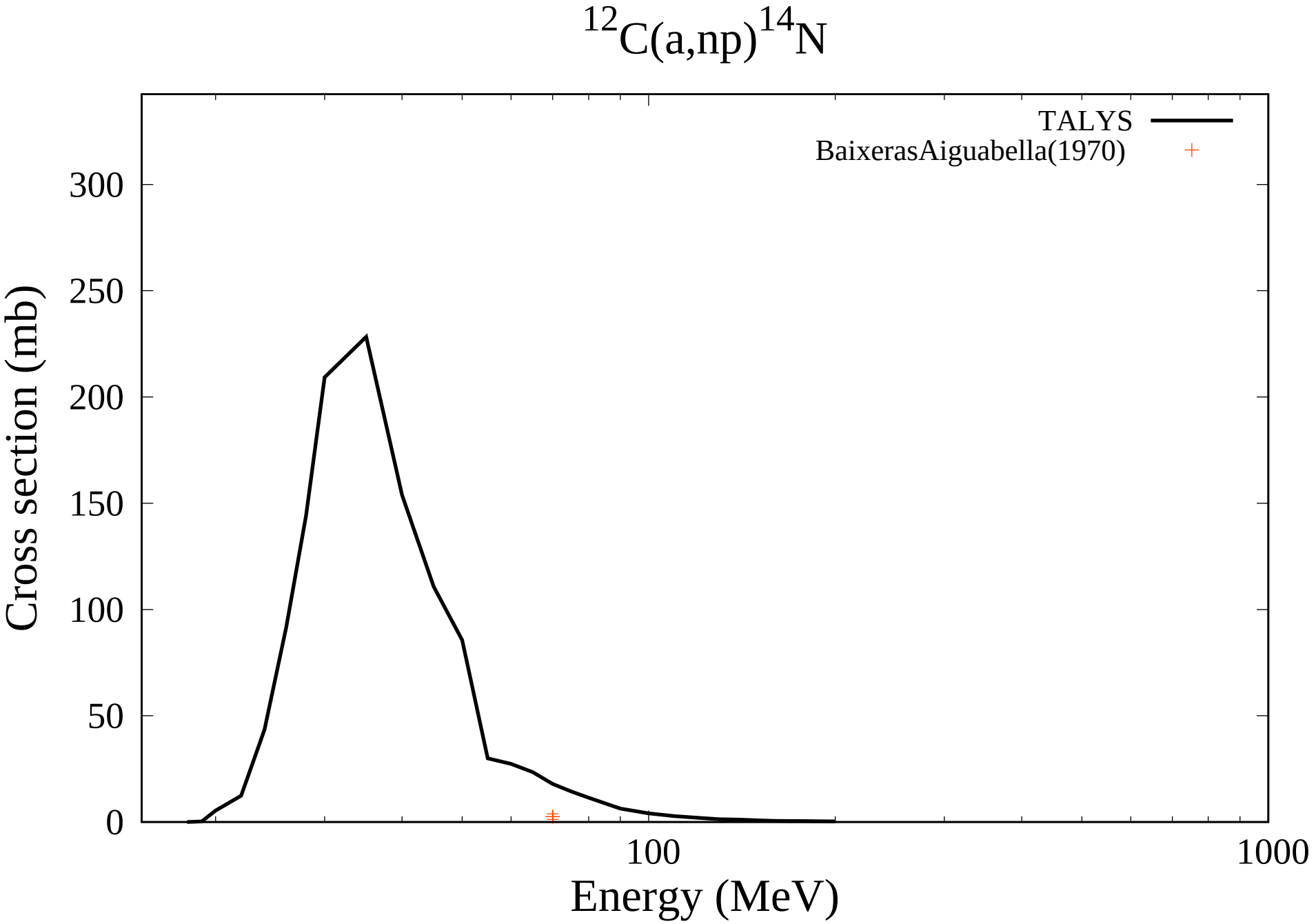
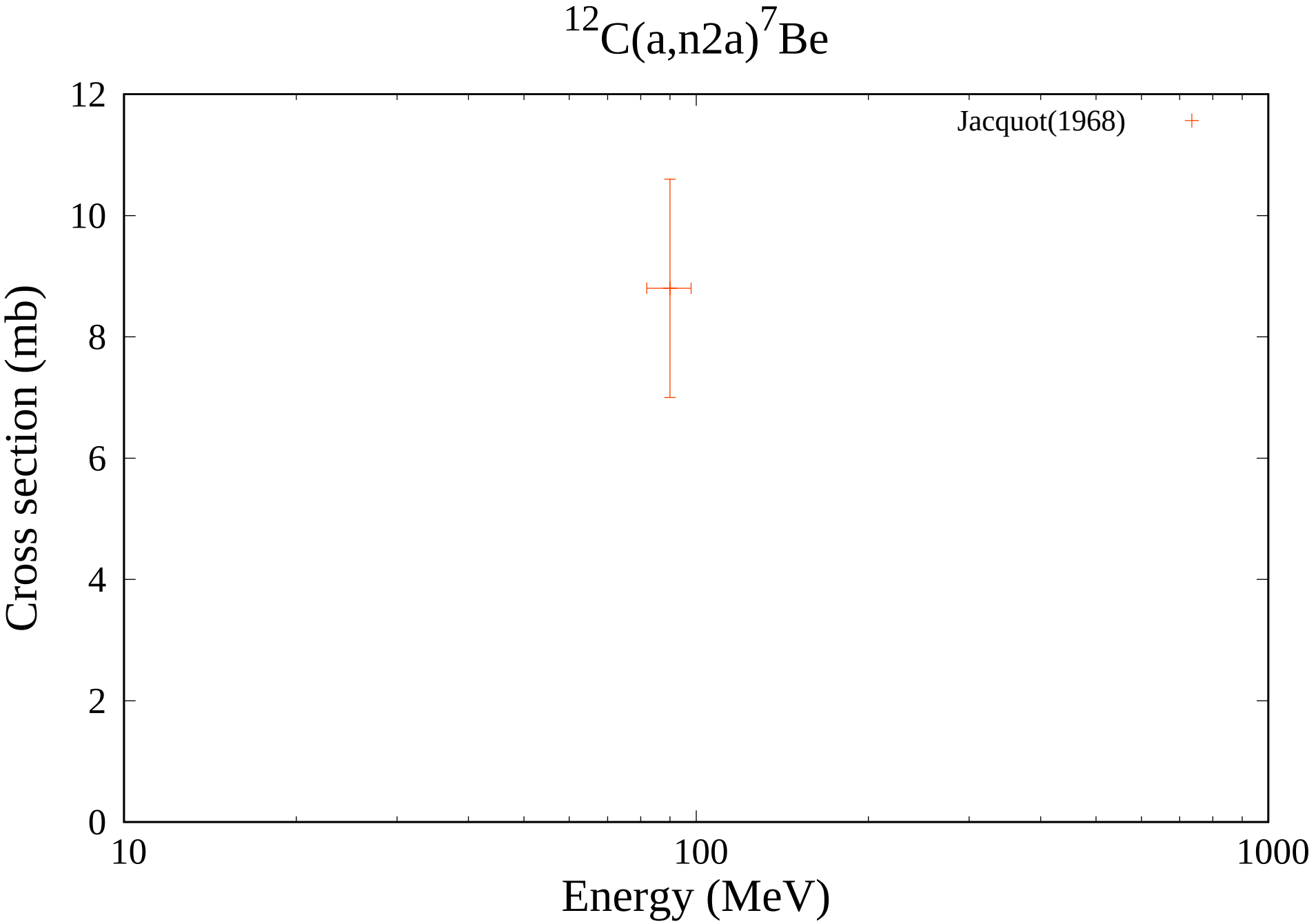
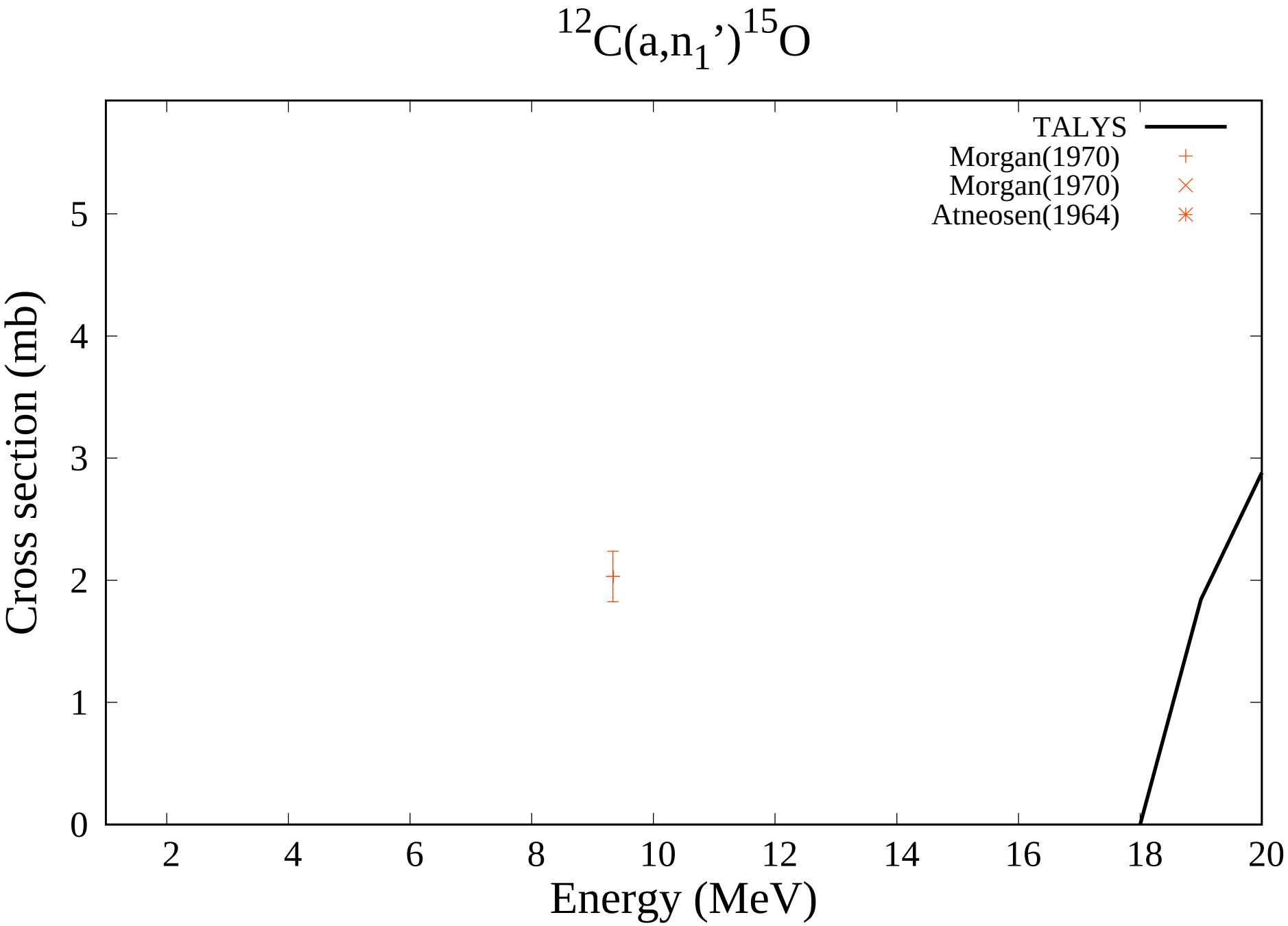

$^{12}$C(a,non)
TALYS
TENDL-2015
Ingemarsson(2000)
Jaros(1978)
Cross section (mb)
1200.00000
1000.00000
800.00000
600.00000
400.00000
200.00000
0.00000
1
10
100
1000
Energy (MeV)

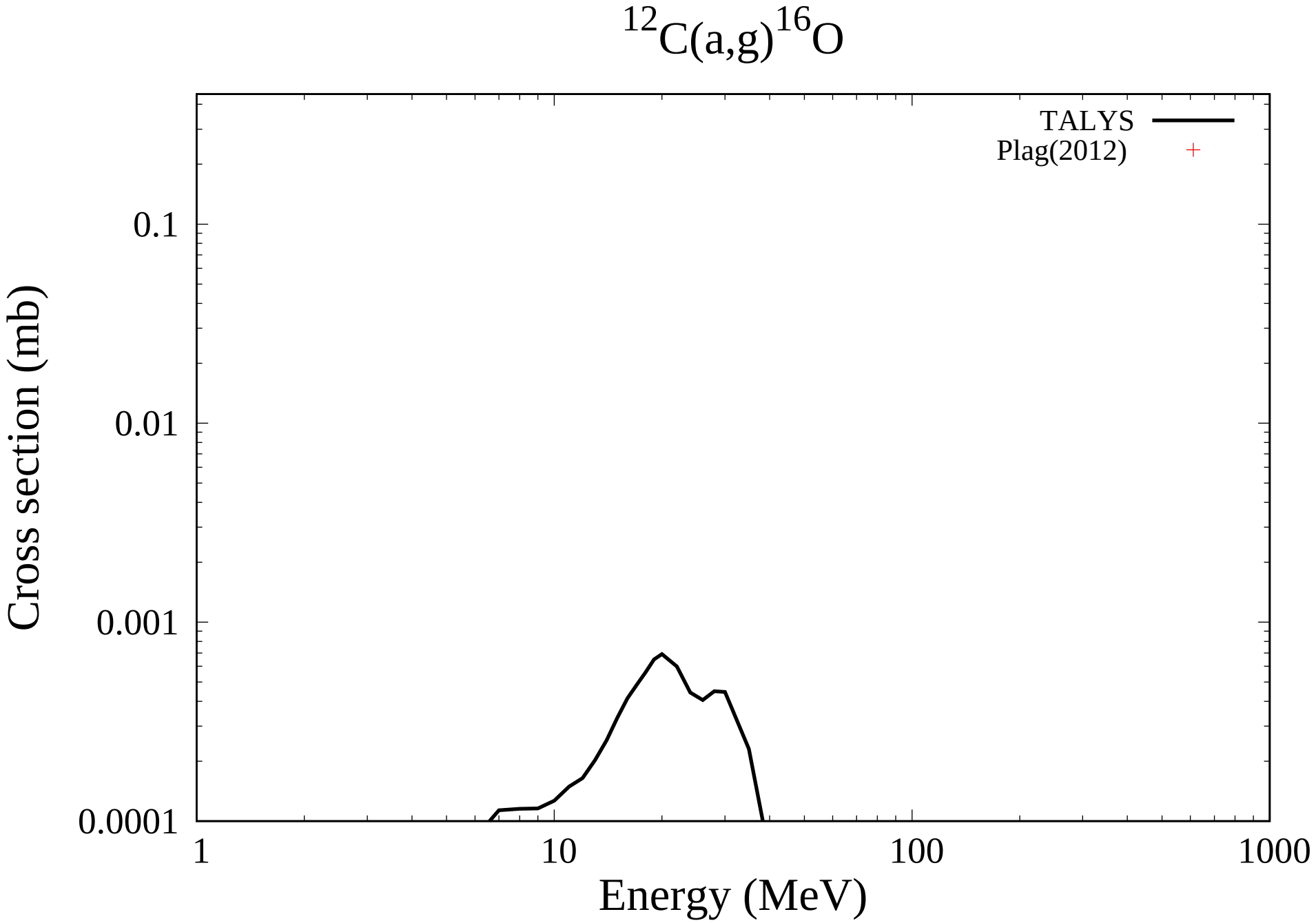

$^{12}C(a,n)^{15}O$
TALYS
JENDL-2005
TENDL-2015
Black(1968)
Cross section (mb)
0
100
200
300
400
500
600
1
10
100
1000
Energy (MeV)

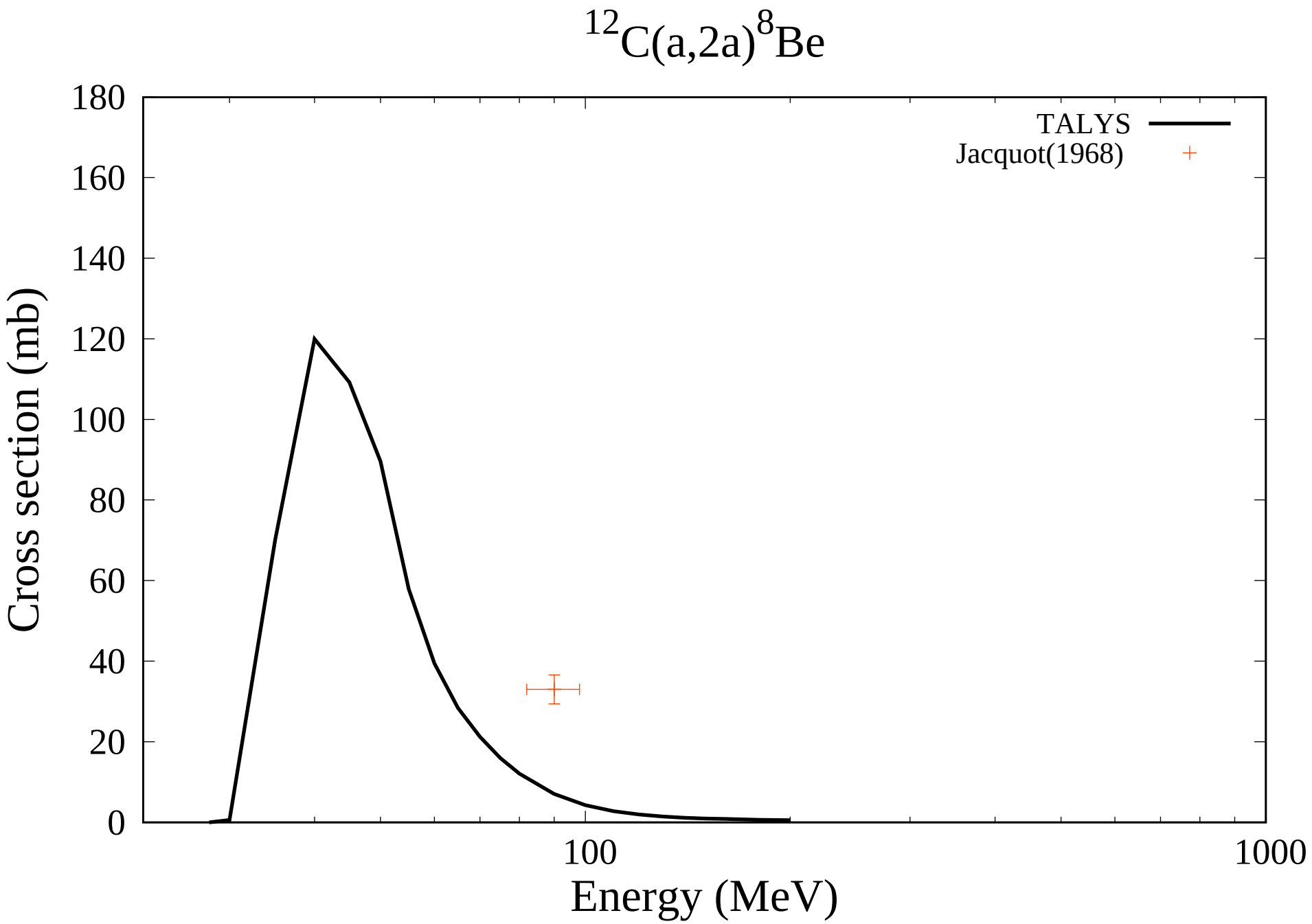

$^{12}C(a,na)^{11}C$
TALYS
Kozma(1990)
Bamblevski(1986)
BaixerasAiguabella(1970)
Lindner(1953)
Lindner(1953)
Lindner(1953)
Lindner(1953)
Lindner(1953)
Cross section (mb)
0
20
40
60
80
100
120
100
1000
Energy (MeV)

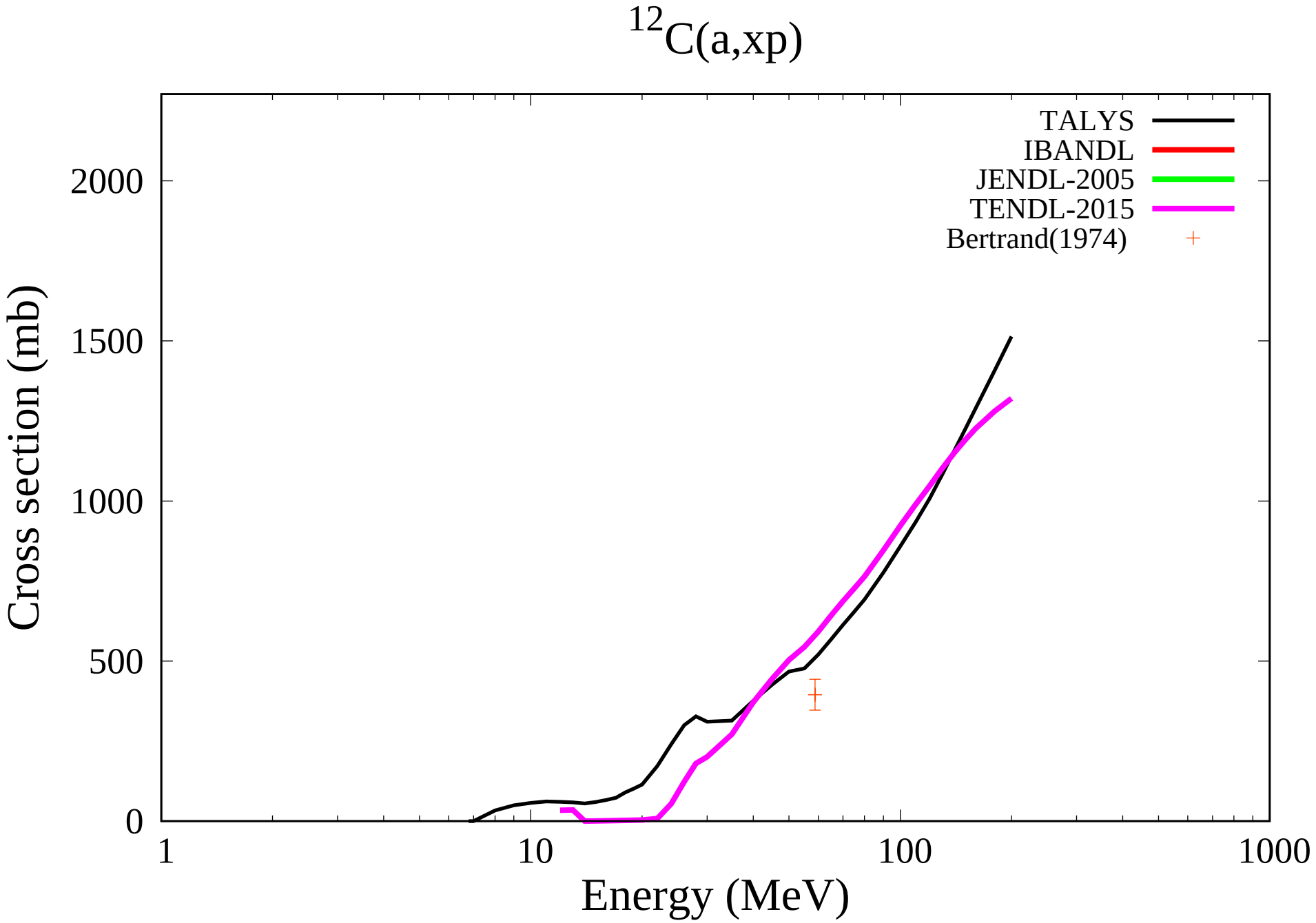

$^{12}C(a,np)^{14}N$
TALYS
BaixerasAiguabella(1970)
Cross section (mb)
300
250
200
150
100
50
0
100
1000
Energy (MeV)

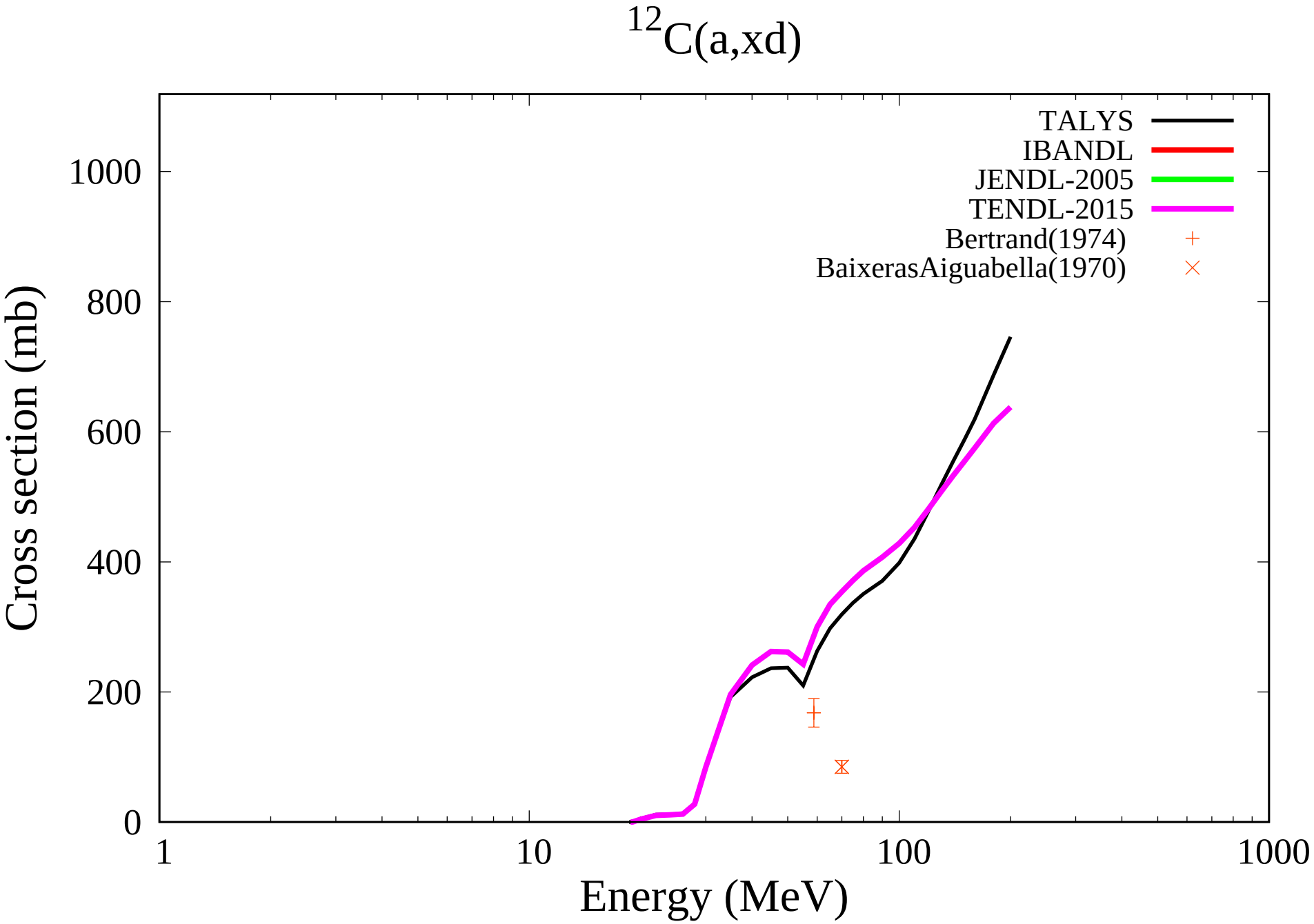

$^{12}C(a,n2a)^{7}Be$
Jacquot(1968)
Cross section (mb)
Energy (MeV)
0
2
4
6
8
10
12
10
100
1000

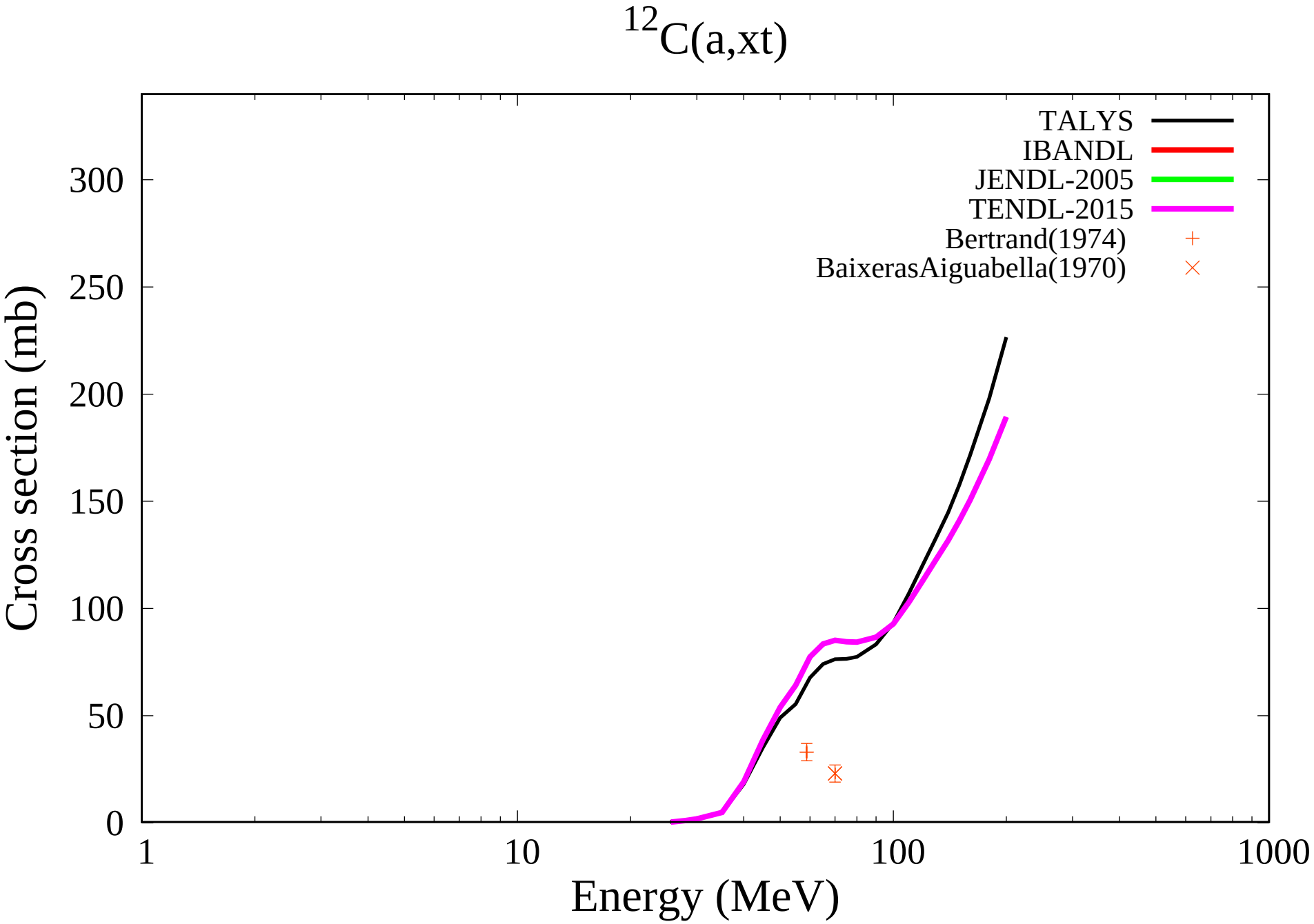

$^{12}C(a,n_1')^{15}O$
TALYS
Morgan(1970)
Morgan(1970)
Atneosen(1964)
Cross section (mb)
0
1
2
3
4
5
2
4
6
8
10
12
14
16
18
20
Energy (MeV)

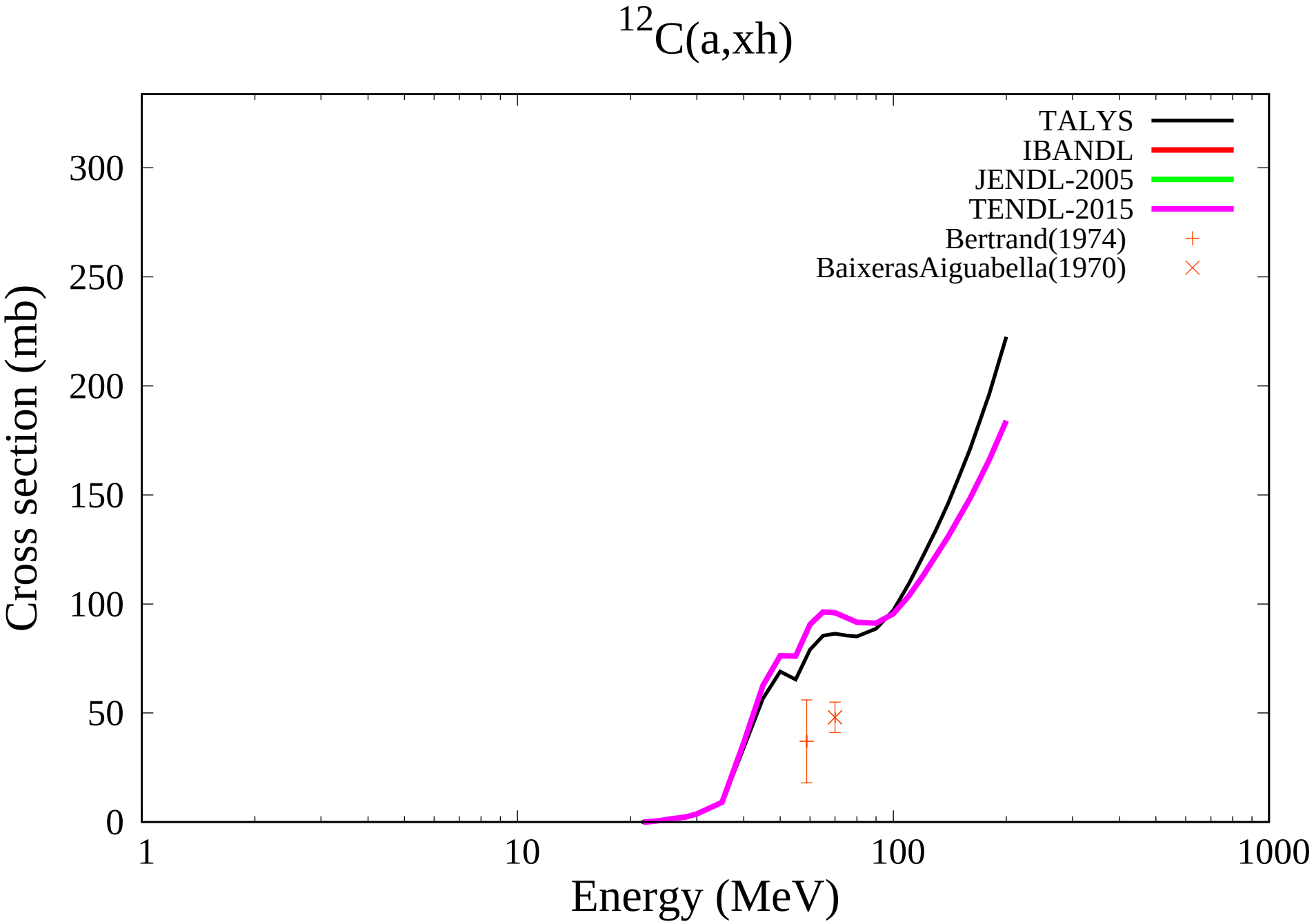

$^{12}C(a,g)^{16}O$
TALYS
Plag(2012)
Cross section (mb)
0.1
0.01
0.001
0.0001
1
10
100
1000
Energy (MeV)

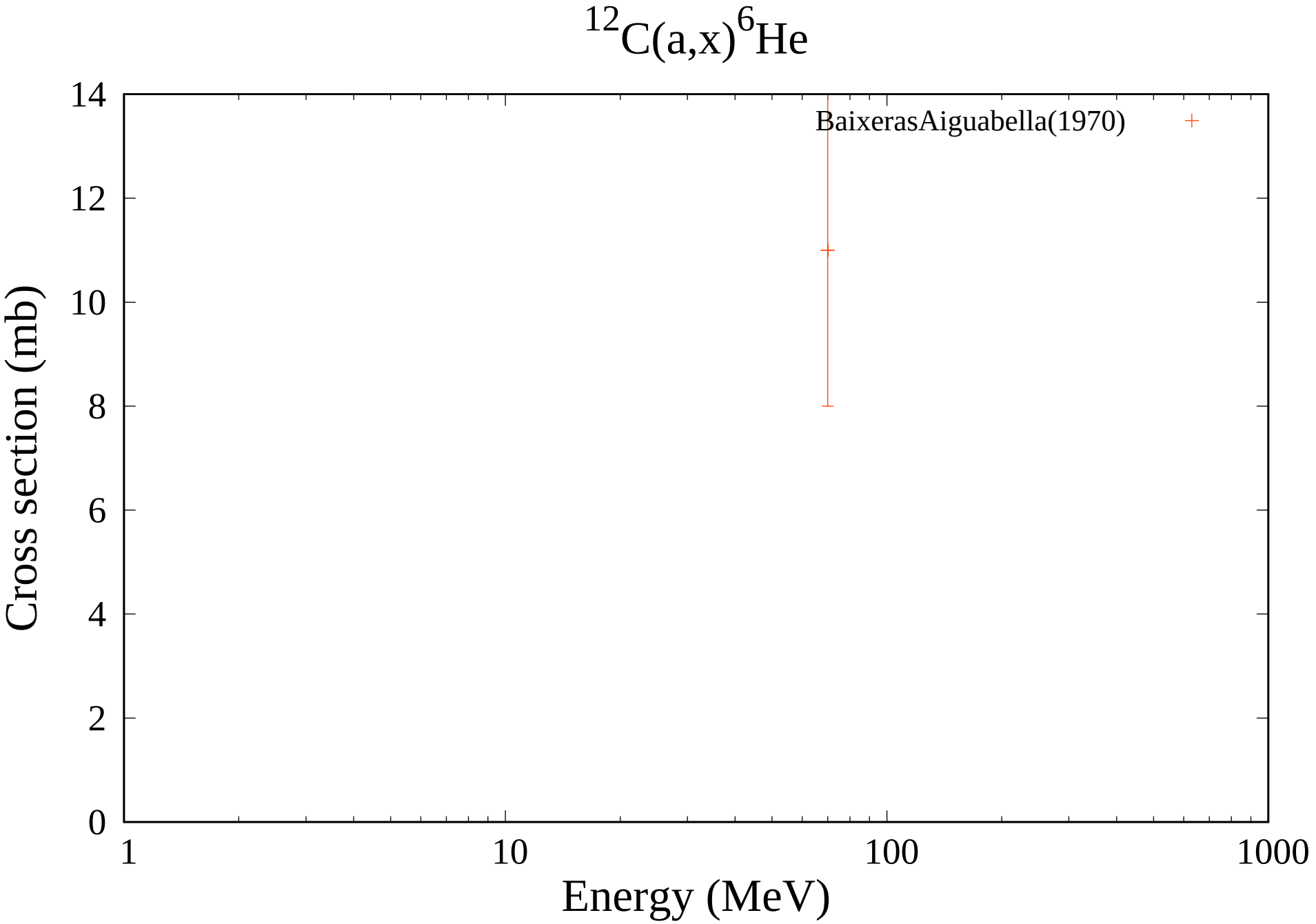

$^{12}C(a,2a)^{8}Be$
TALYS
Jacquot(1968)
Cross section (mb)
180
160
140
120
100
80
60
40
20
0
100
1000
Energy (MeV)

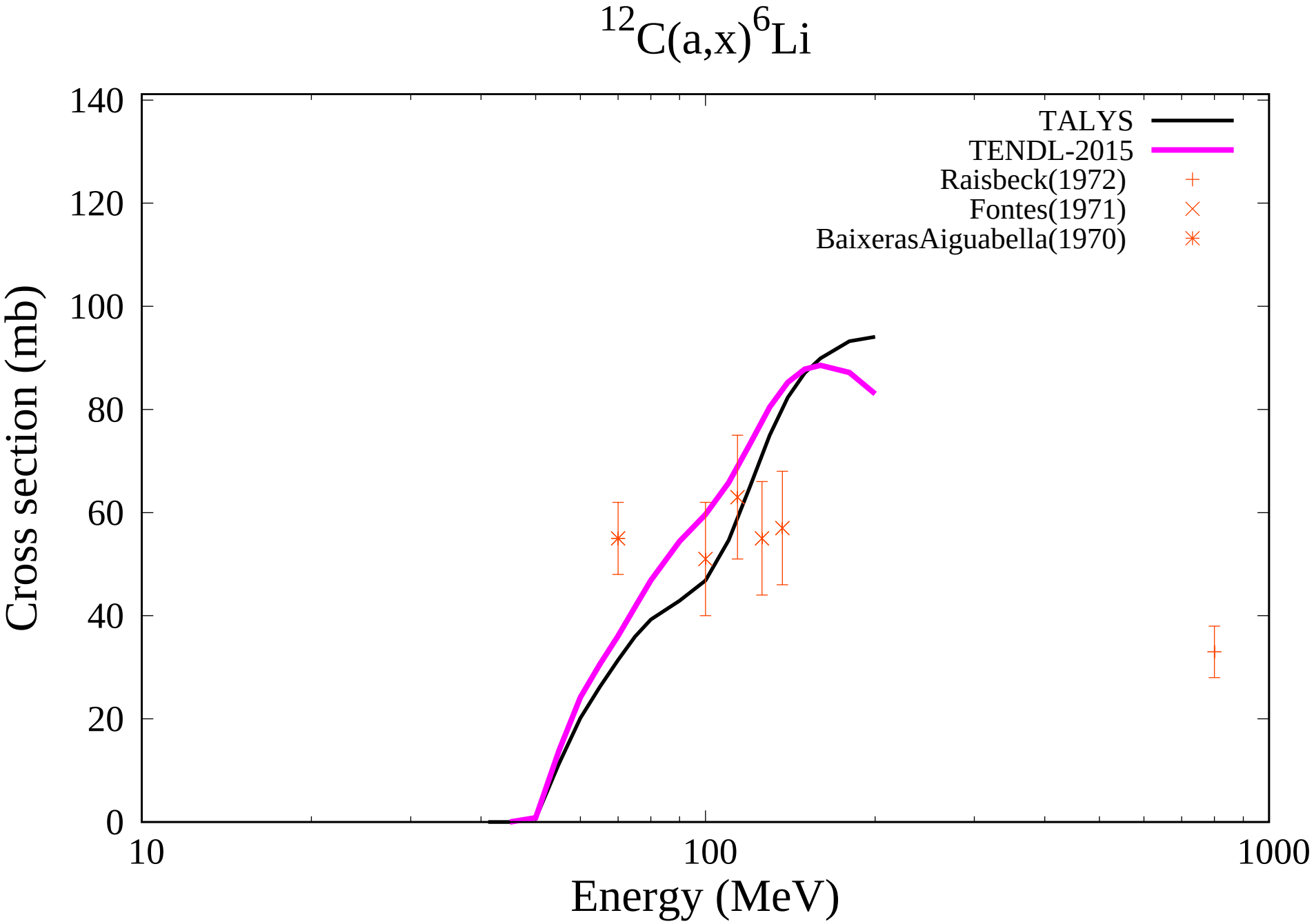

$^{12}$C(a,xp)
TALYS
IBANDL
JENDL-2005
TENDL-2015
Bertrand(1974)
Cross section (mb)
2000
1500
1000
500
0
1
10
100
1000
Energy (MeV)

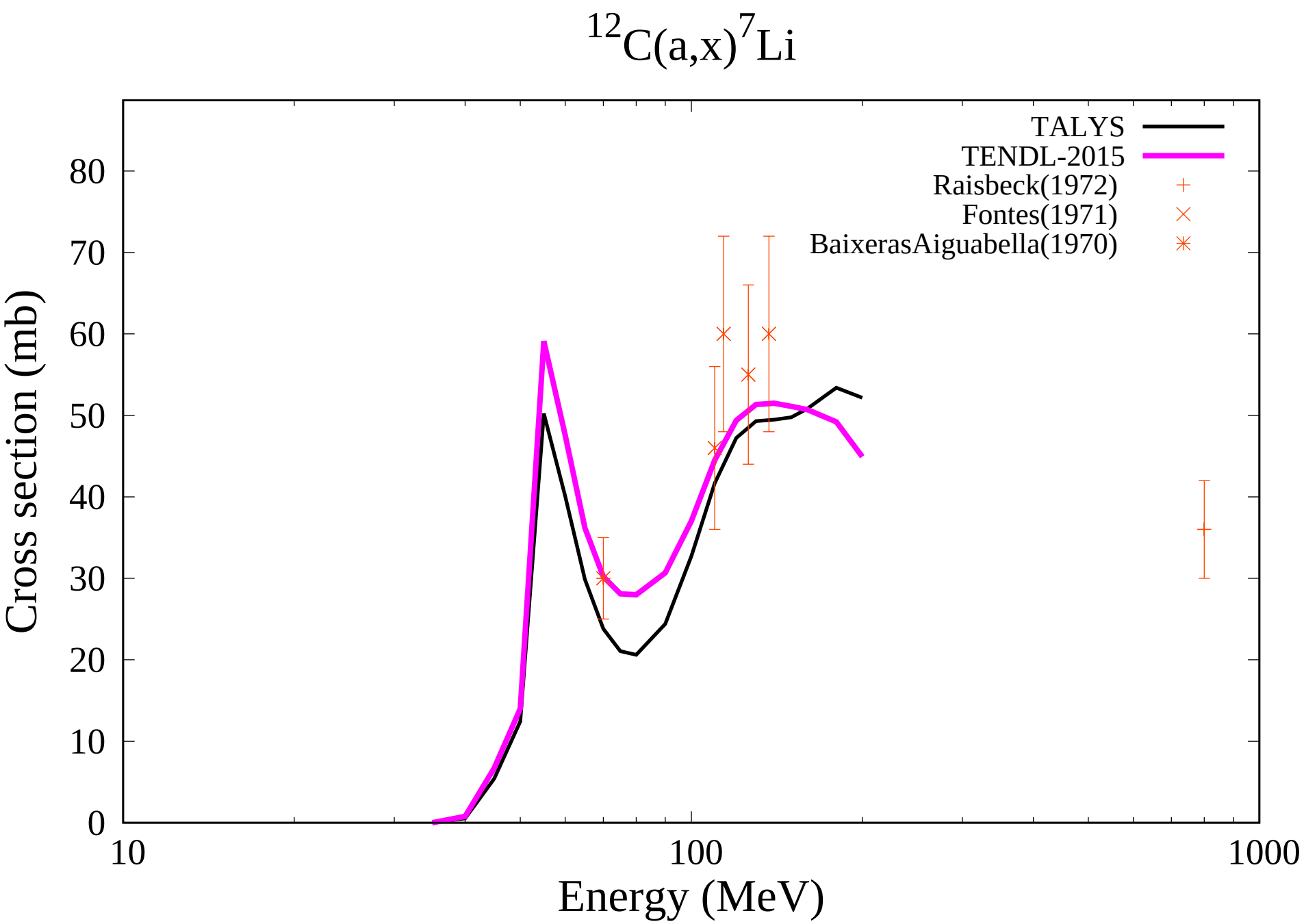

$^{12}$C(a,xd)
TALYS
IBANDL
JENDL-2005
TENDL-2015
Bertrand(1974)
BaixerasAiguabella(1970)
Cross section (mb)
0
200
400
600
800
1000
1
10
100
1000
Energy (MeV)

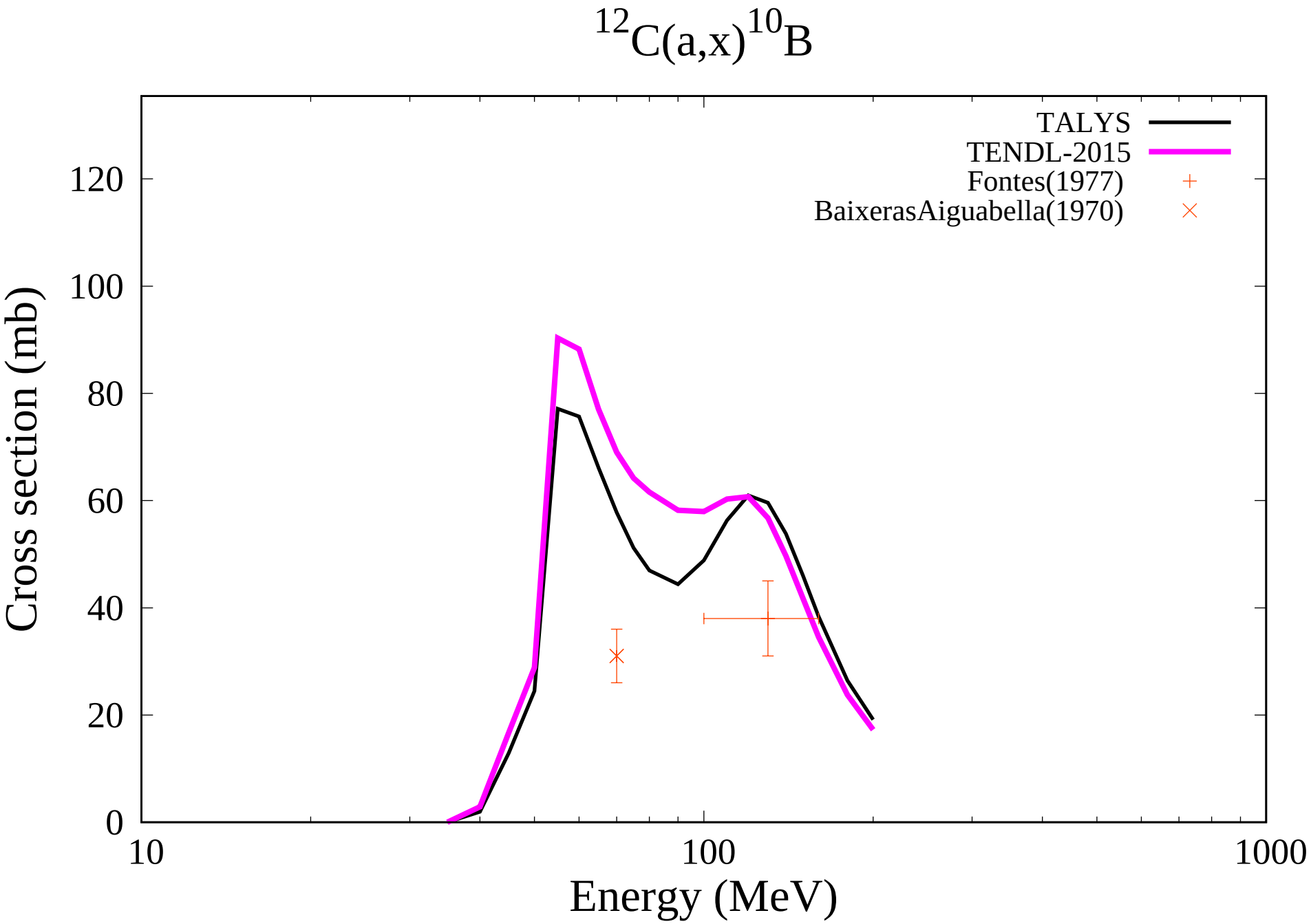

$^{12}$C(a,xt)
TALYS
IBANDL
JENDL-2005
TENDL-2015
Bertrand(1974)
BaixerasAiguabella(1970)
Cross section (mb)
0
50
100
150
200
250
300
1
10
100
1000
Energy (MeV)

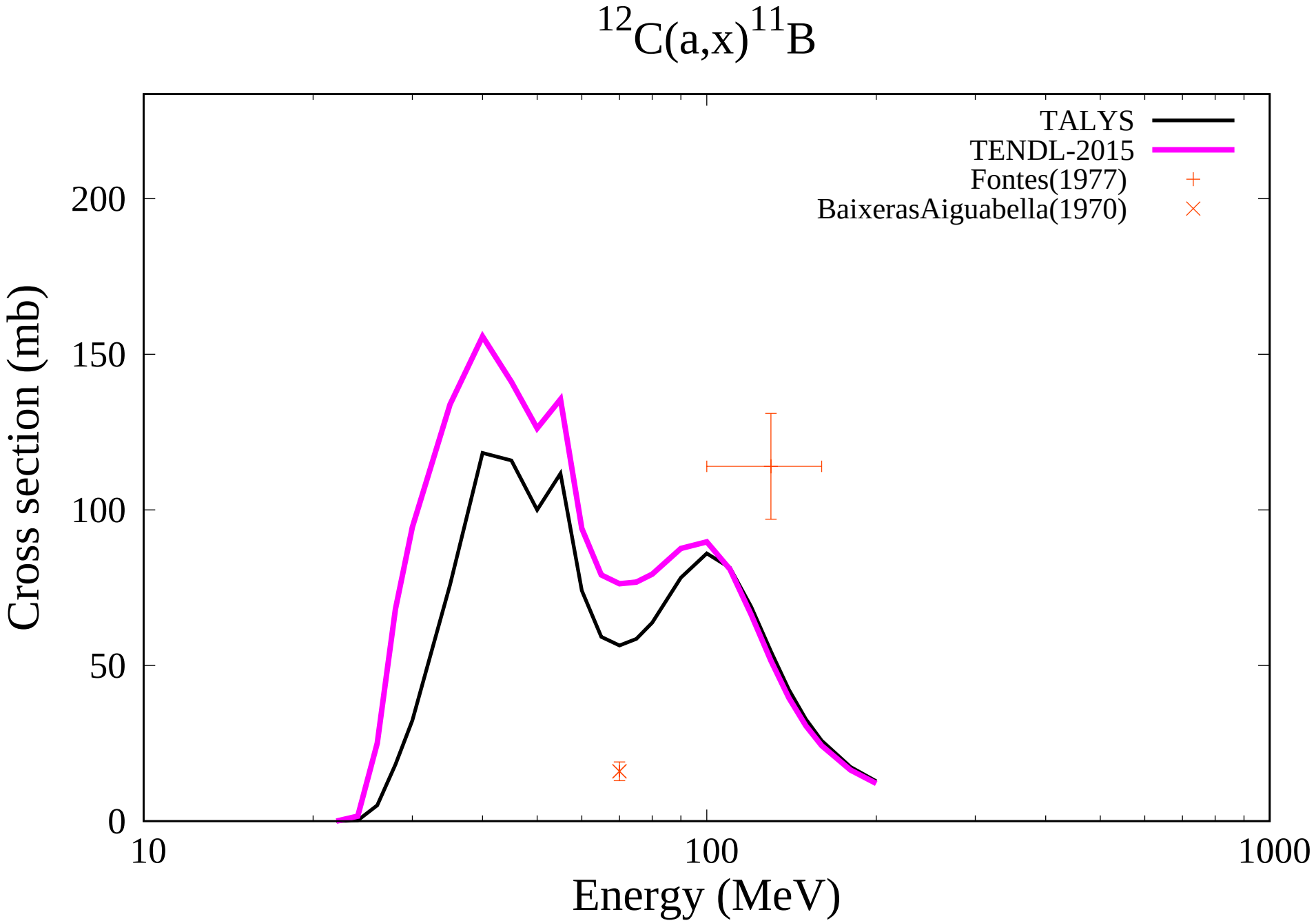

$^{12}$C(a,xh)
TALYS
IBANDL
JENDL-2005
TENDL-2015
Bertrand(1974)
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
50
100
150
200
250
300
1
10
100
1000

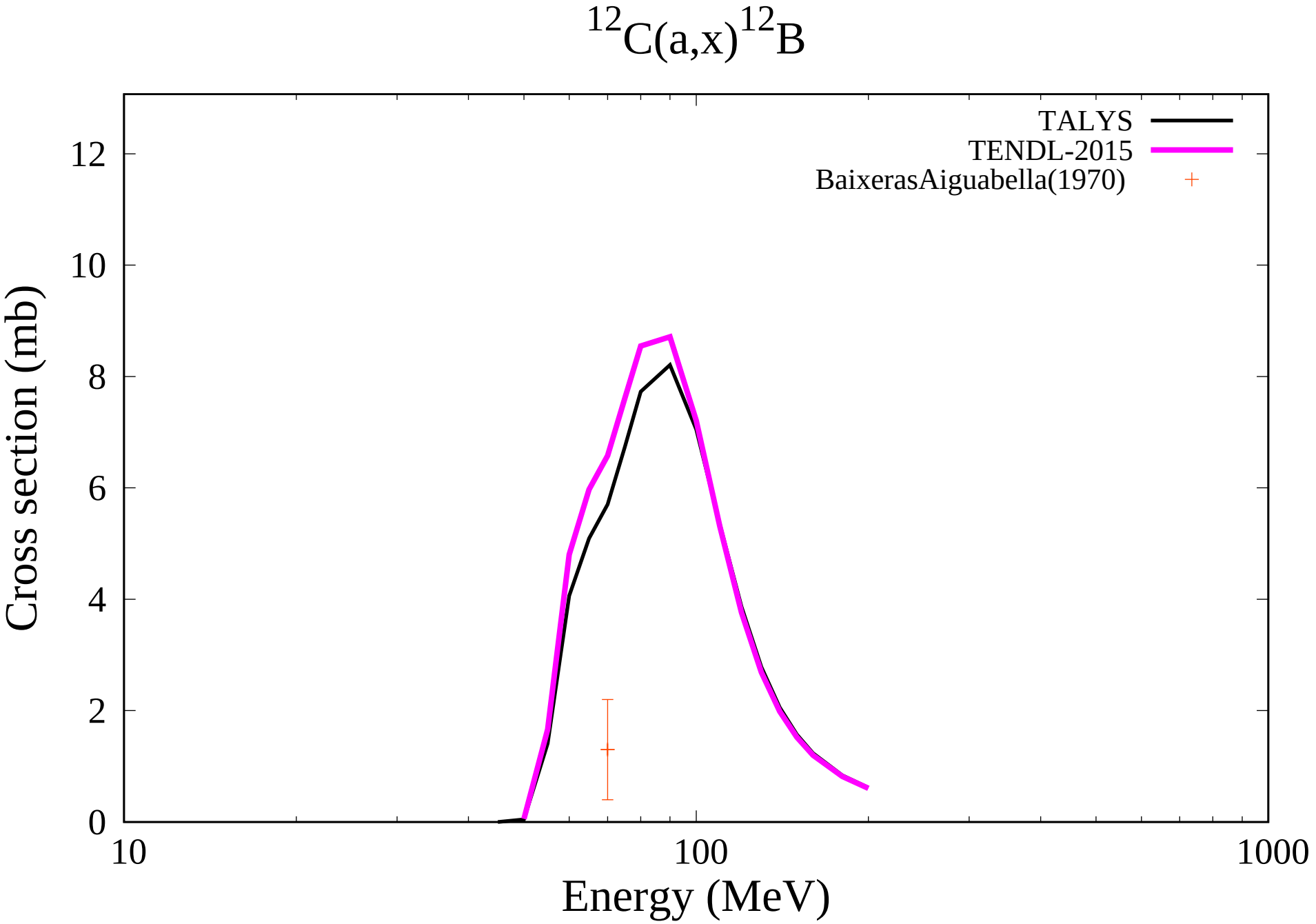

$^{12}C(a,x)^{6}He$
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
2
4
6
8
10
12
14
1
10
100
1000

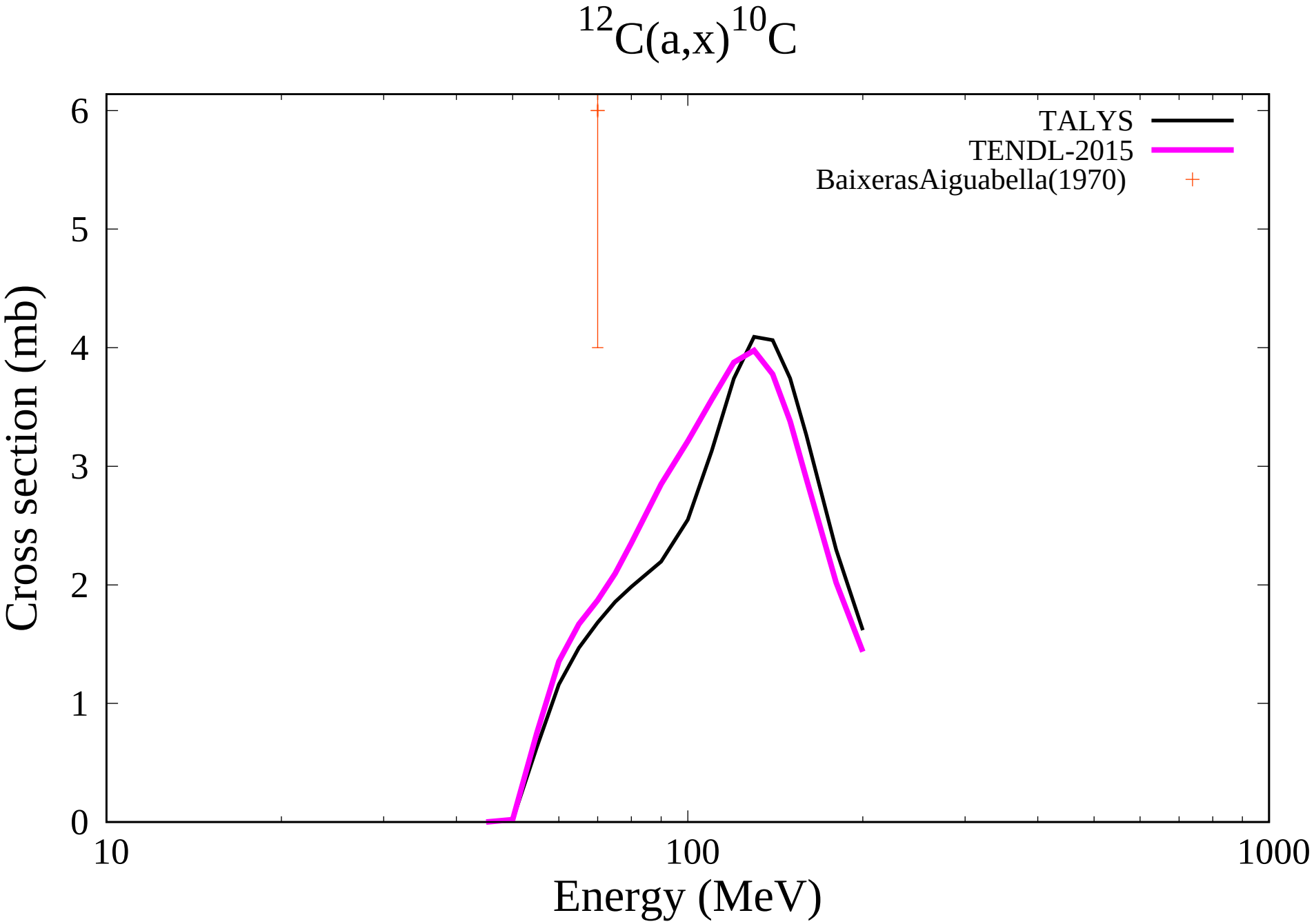

$^{12}C(a,x)^{6}Li$
Cross section (mb)
Energy (MeV)
0
20
40
60
80
100
120
140
10
100
1000
TALYS
TENDL-2015
Raisbeck(1972)
Fontes(1971)
BaixerasAiguabella(1970)

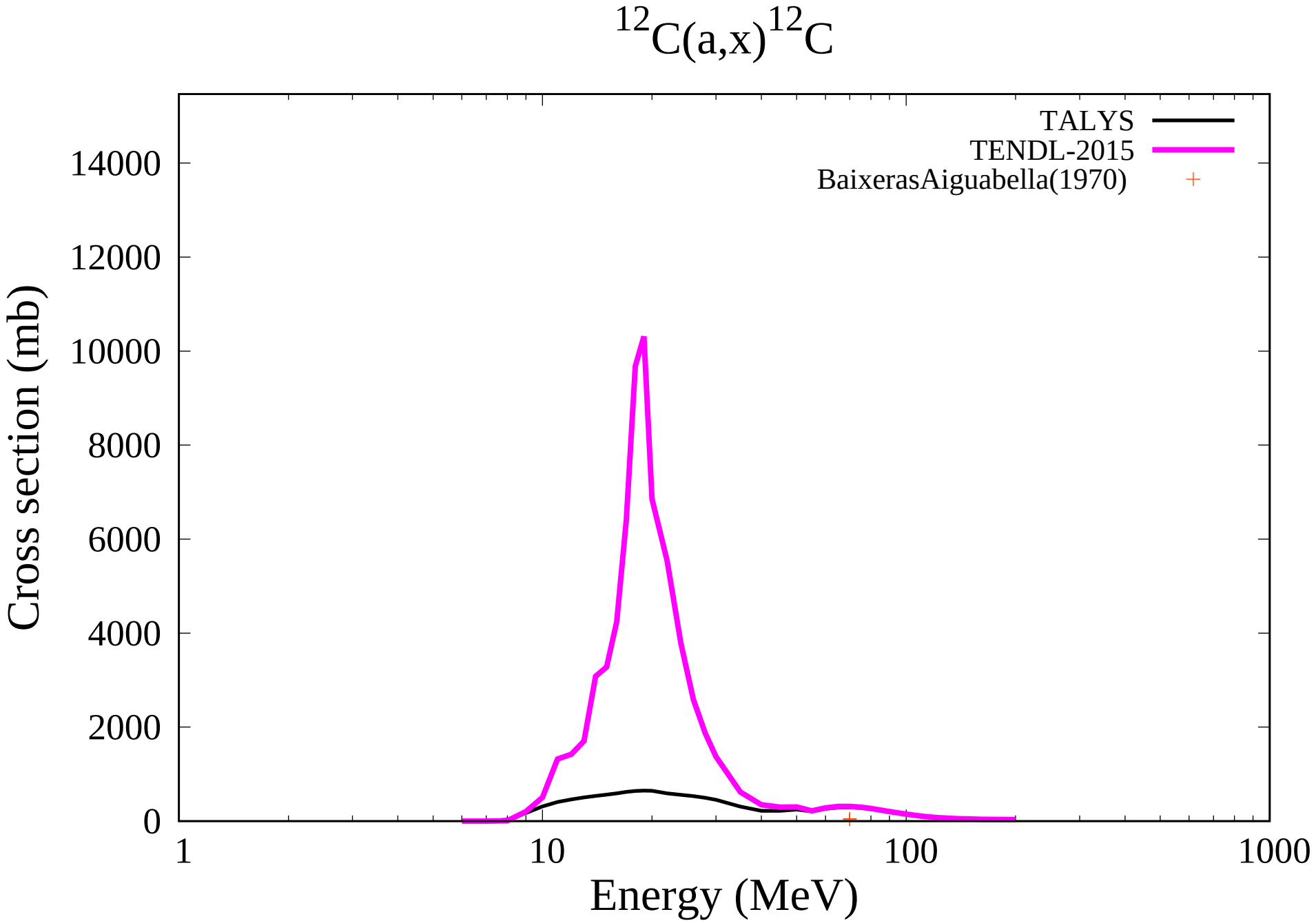

$^{12}C(a,x)^{7}Li$
TALYS
TENDL-2015
Raisbeck(1972)
Fontes(1971)
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
10
20
30
40
50
60
70
80
10
100
1000

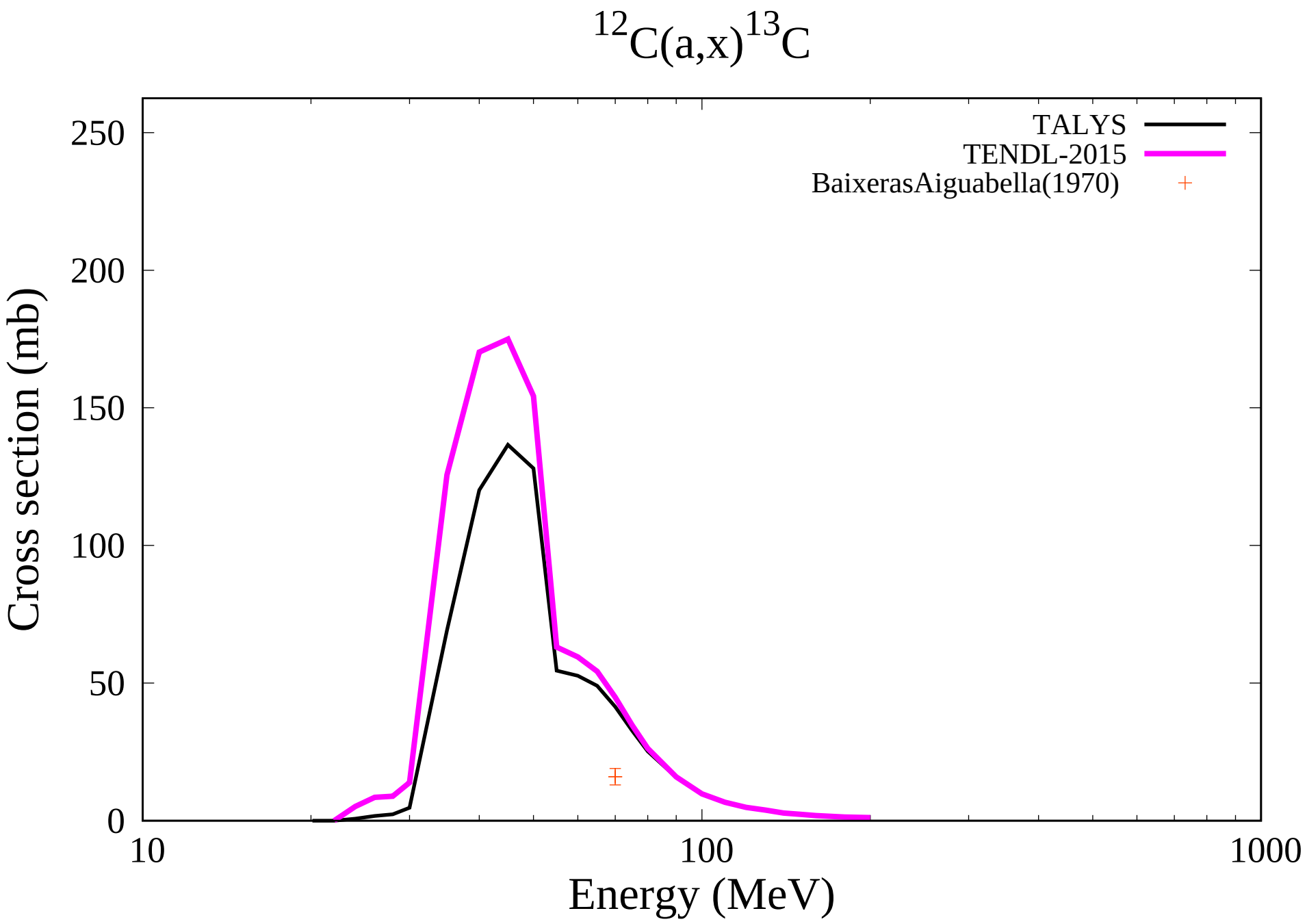

$^{12}C(a,x)^{10}B$
TALYS
TENDL-2015
Fontes(1977)
BaixerasAiguabella(1970)
Cross section (mb)
0
20
40
60
80
100
120
10
100
1000
Energy (MeV)

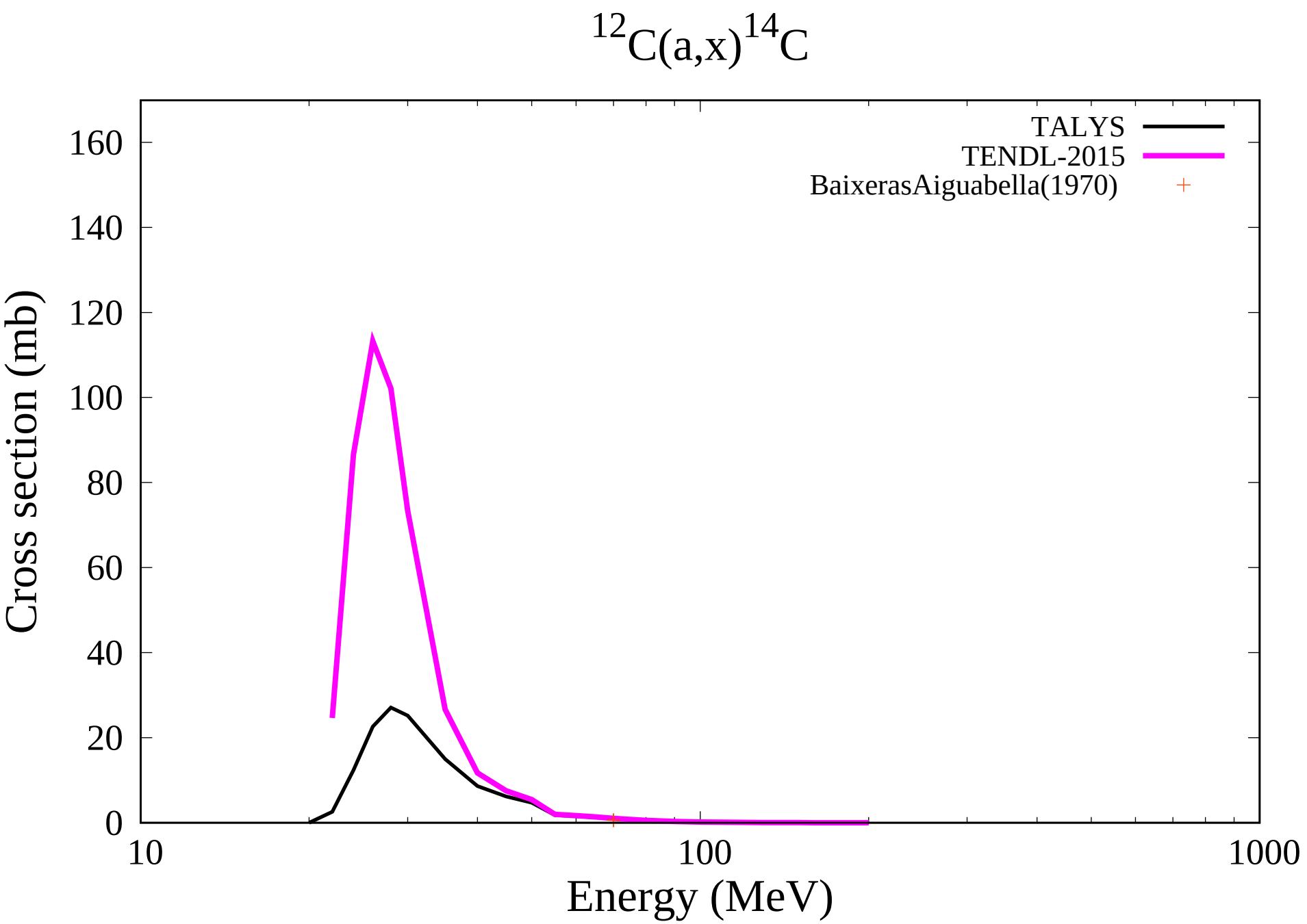

$^{12}C(a,x)^{11}B$
TALYS
TENDL-2015
Fontes(1977)
BaixerasAiguabella(1970)
Cross section (mb)
0
50
100
150
200
10
100
1000
Energy (MeV)

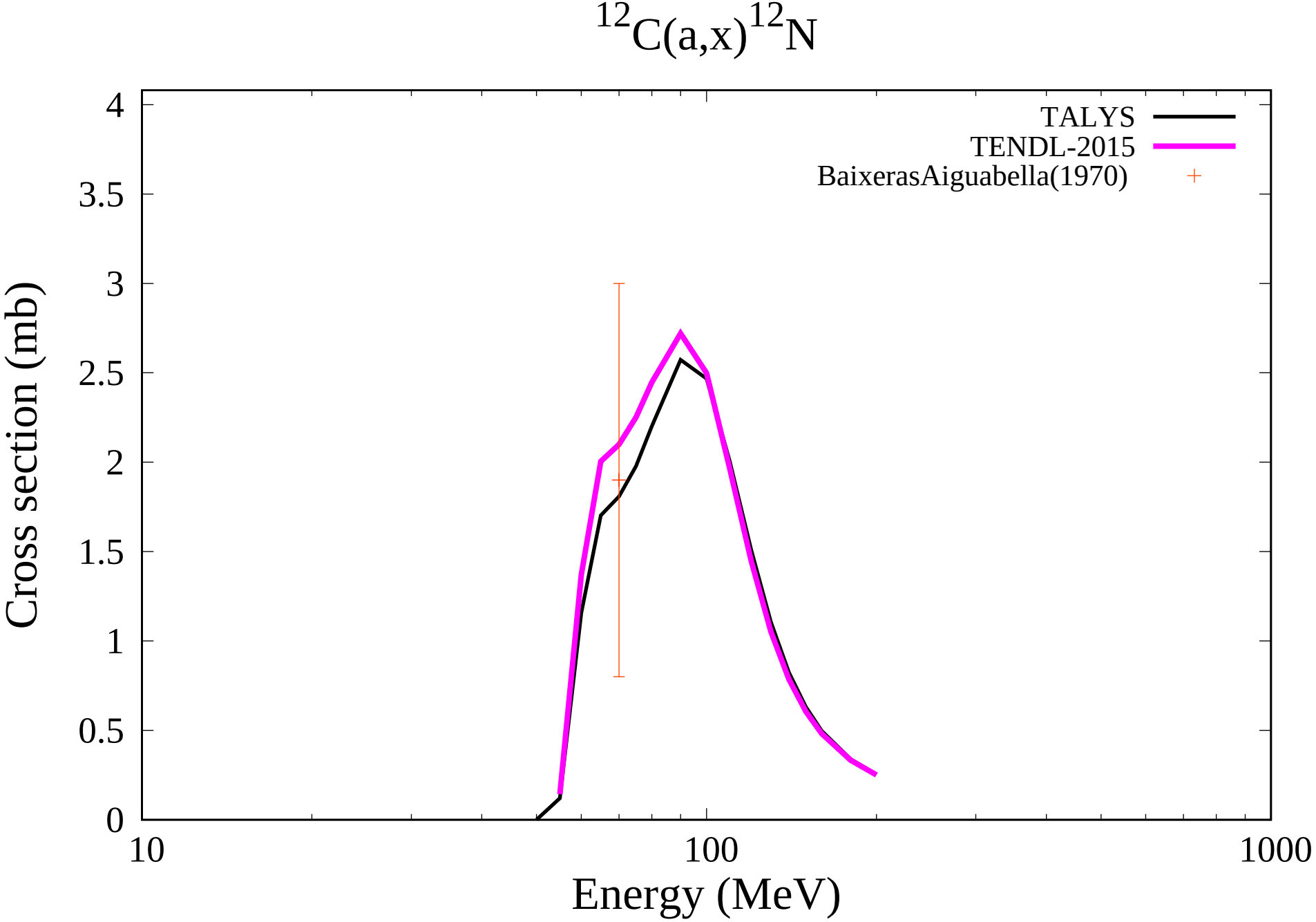

$^{12}C(a,x)^{12}B$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
2
4
6
8
10
12
10
100
1000

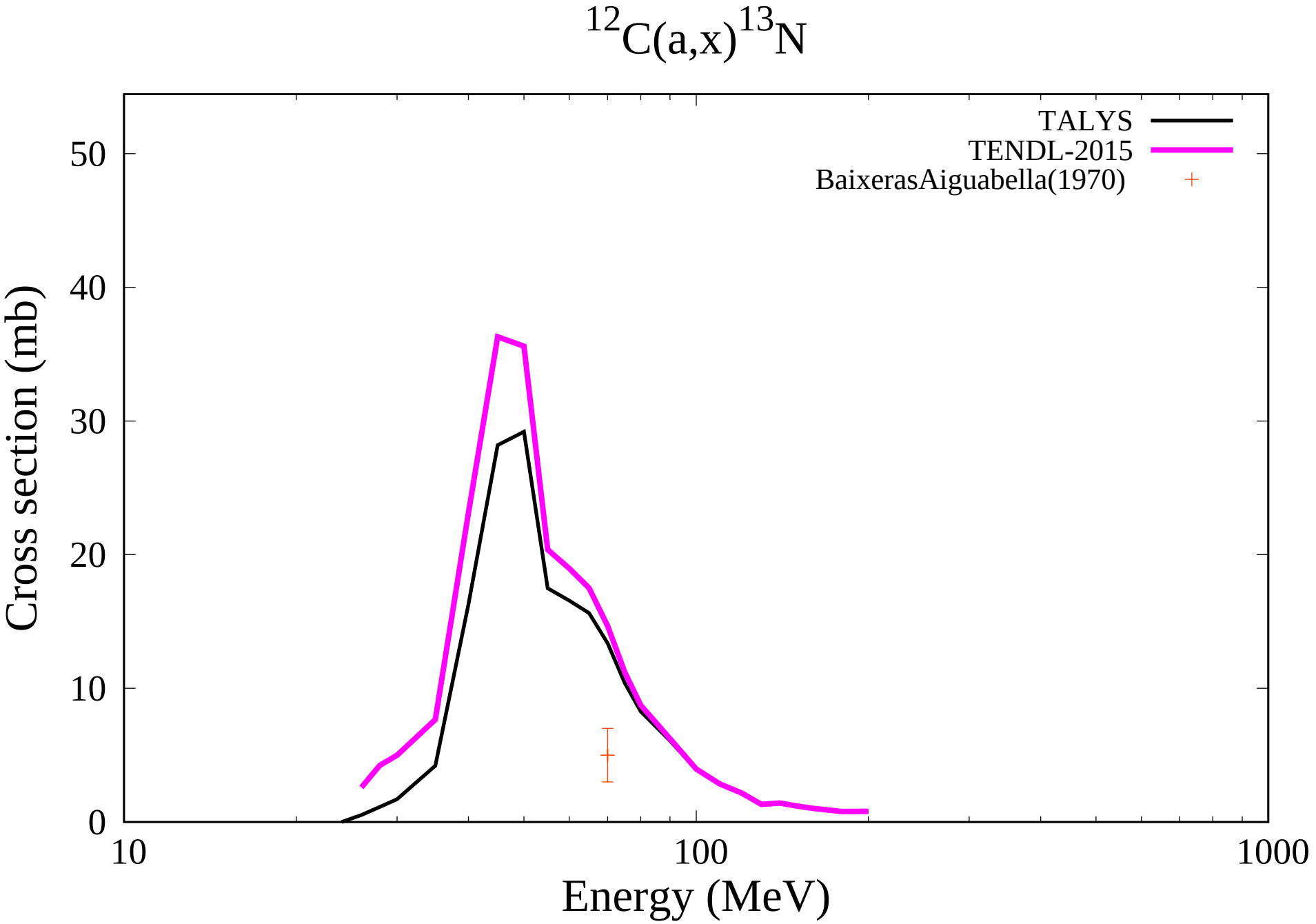

$^{12}C(a,x)^{10}C$
Cross section (mb)
Energy (MeV)
0
1
2
3
4
5
6
10
100
1000
TALYS
TENDL-2015
BaixerasAiguabella(1970)

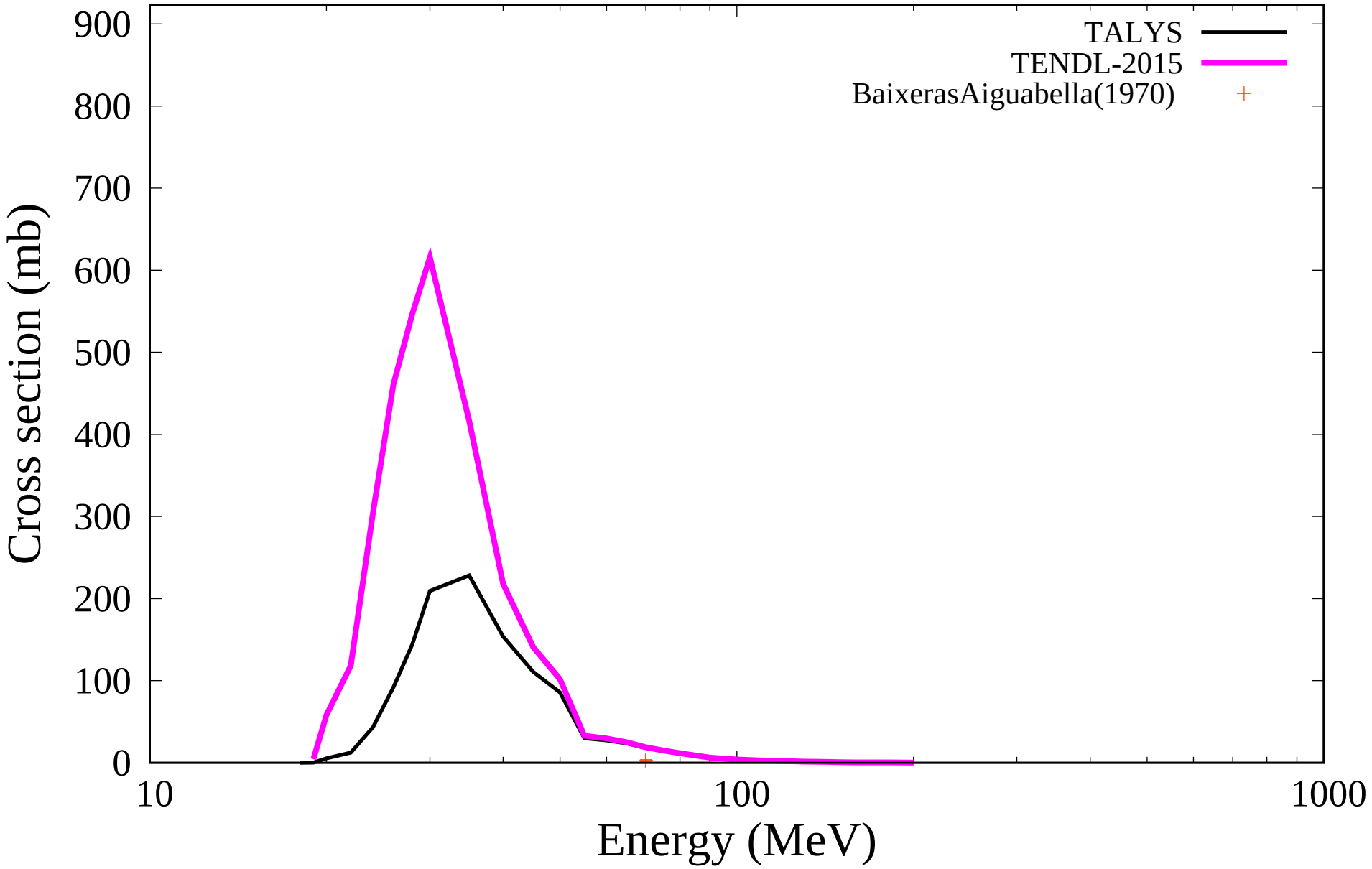

$^{12}C(a,x)^{12}C$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
14000
12000
10000
8000
6000
4000
2000
0
1
10
100
1000
Energy (MeV)


$^{12}C(a,x)^{13}C$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
50
100
150
200
250
10
100
1000


$^{12}C(a,x)^{14}C$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
0
20
40
60
80
100
120
140
160
10
100
1000
Energy (MeV)


$^{12}C(a,x)^{12}N$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
0.5
1
1.5
2
2.5
3
3.5
4
10
100
1000


$^{12}C(a,x)^{13}N$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
0
10
20
30
40
50
10
100
1000
Energy (MeV)


$^{12}C(a,x)^{14}N$
TALYS
TENDL-2015
BaixerasAiguabella(1970)
Cross section (mb)
Energy (MeV)
0
100
200
300
400
500
600
700
800
900
10
100
1000