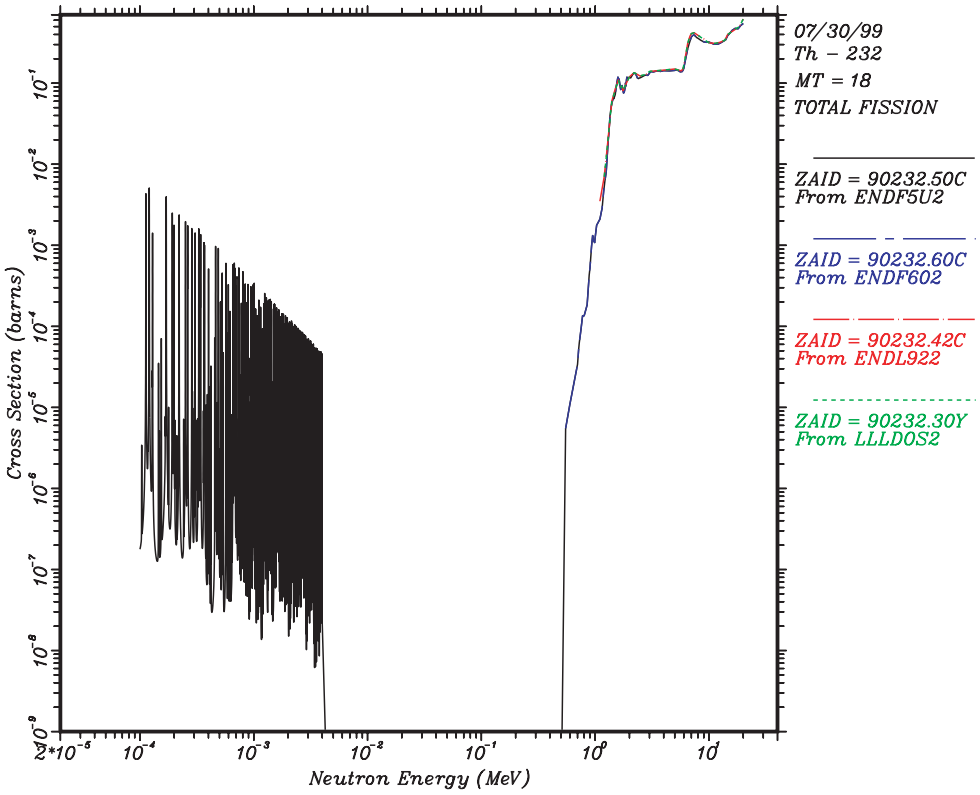
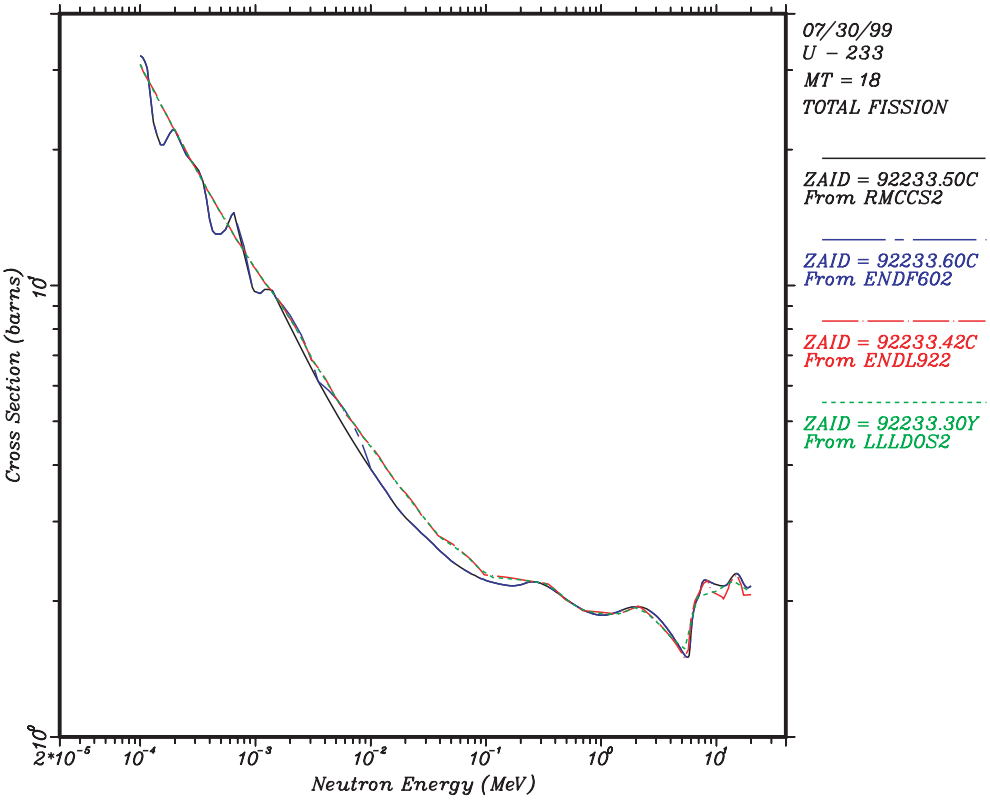
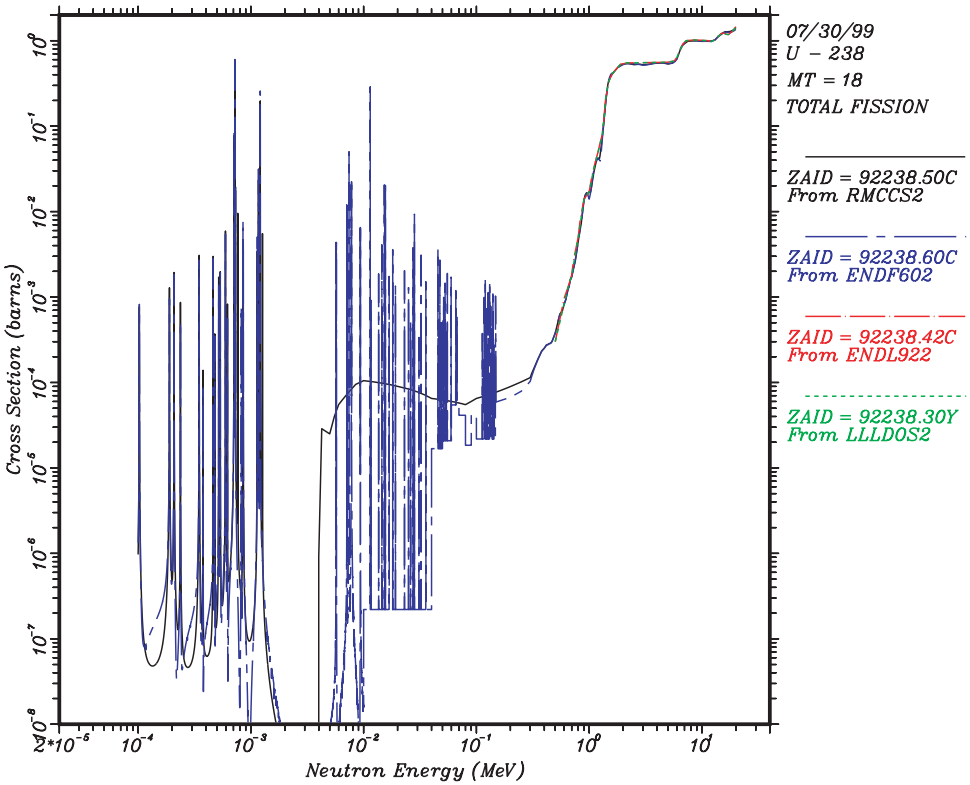
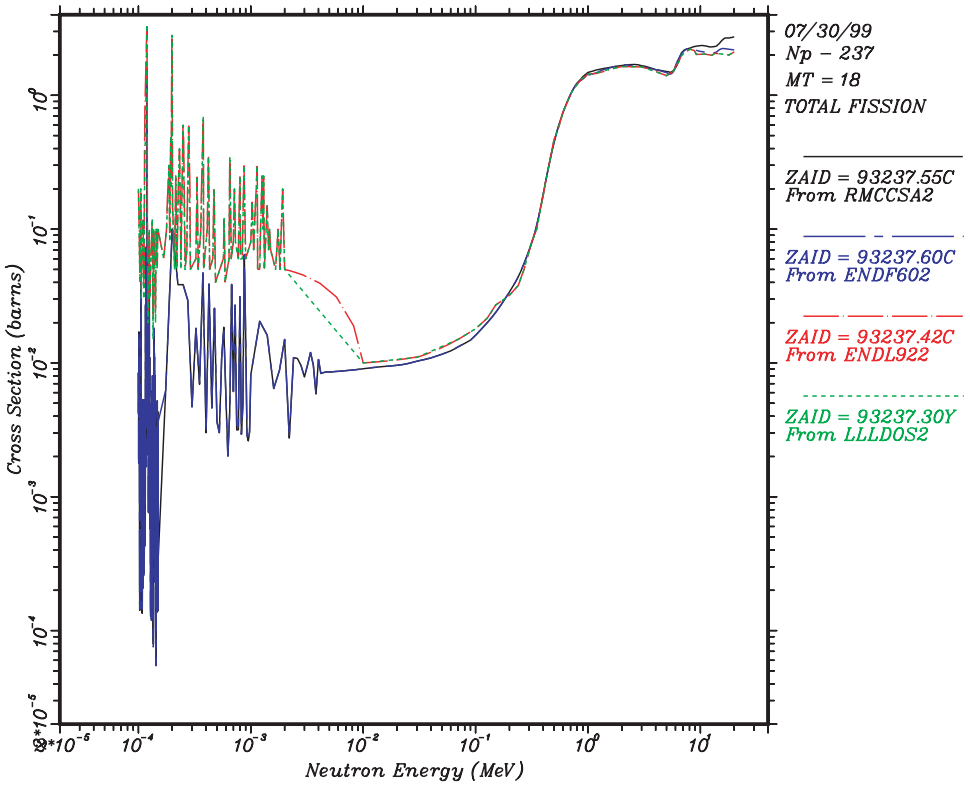
Appendix A

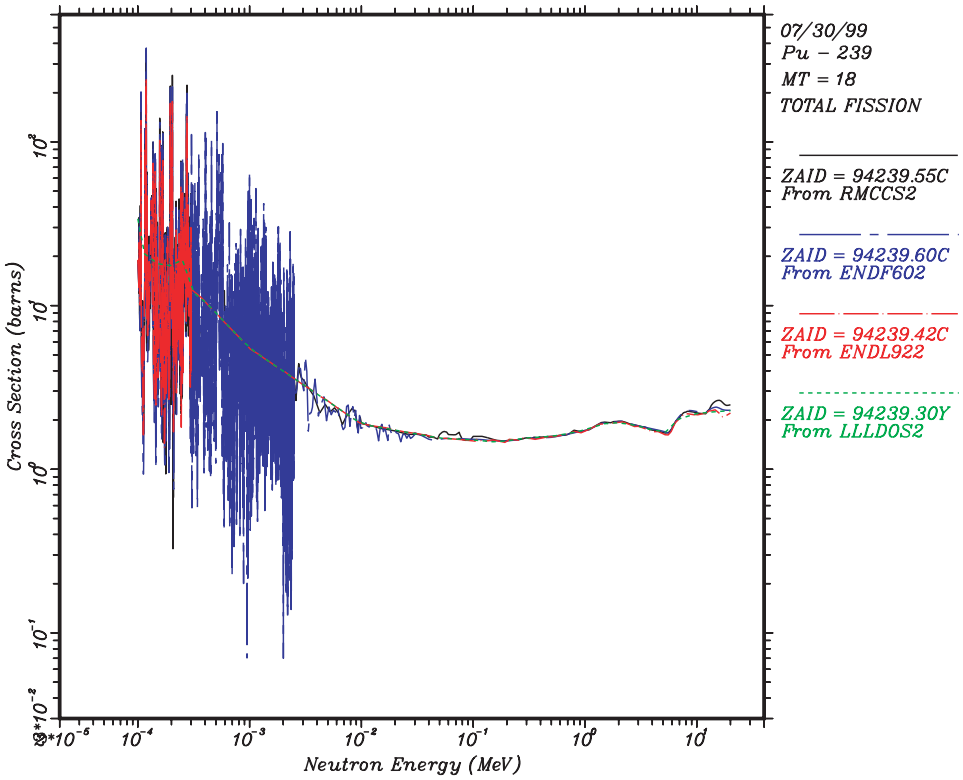
Plots of Fission Cross Sections


07/30/99
Th – 232
MT = 18
TOTAL FISSION
ZAID = 90232.50C
From ENDF5U2
ZAID = 90232.60C
From ENDF602
ZAID = 90232.42C
From ENDL922
ZAID = 90232.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)


07/30/99
U – 233
MT = 18
TOTAL FISSION
ZAID = 92233.50C
From RMCCS2
ZAID = 92233.60C
From ENDF602
ZAID = 92233.42C
From ENDL922
ZAID = 92233.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

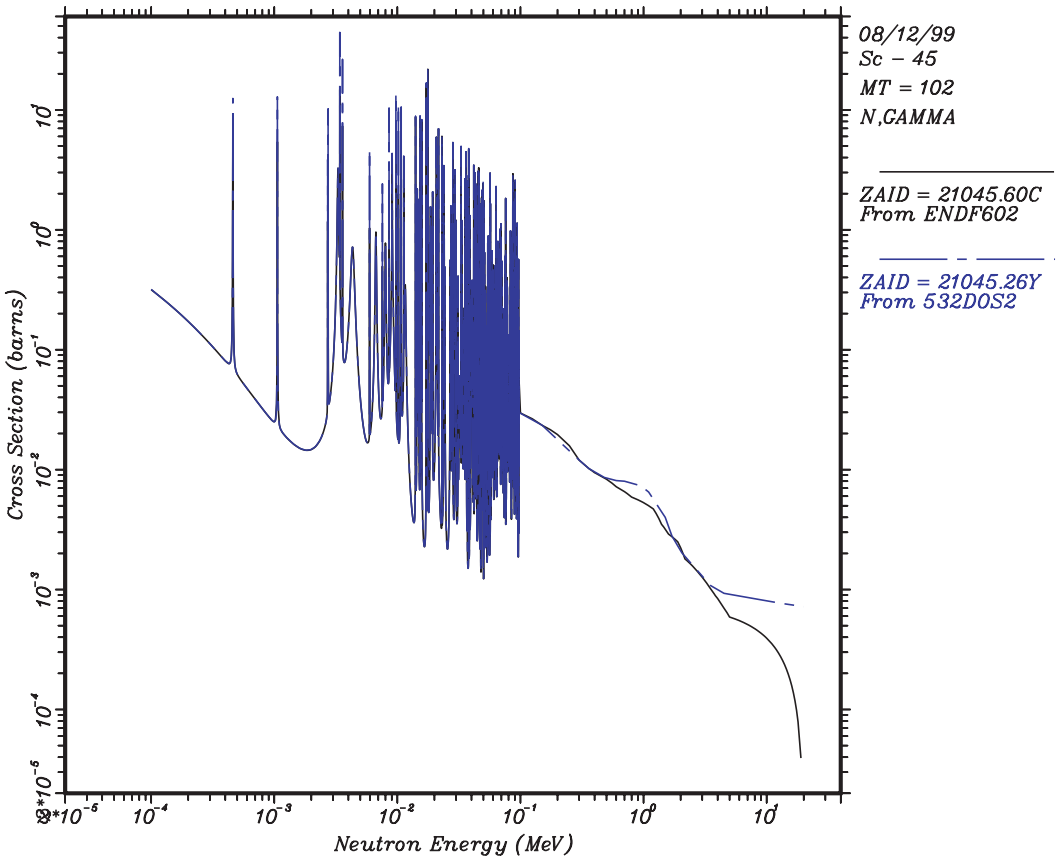

07/30/99
U – 238
MT = 18
TOTAL FISSION
ZAID = 92238.50C
From RMCCS2
ZAID = 92238.60C
From ENDF602
ZAID = 92238.42C
From ENDL922
ZAID = 92238.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

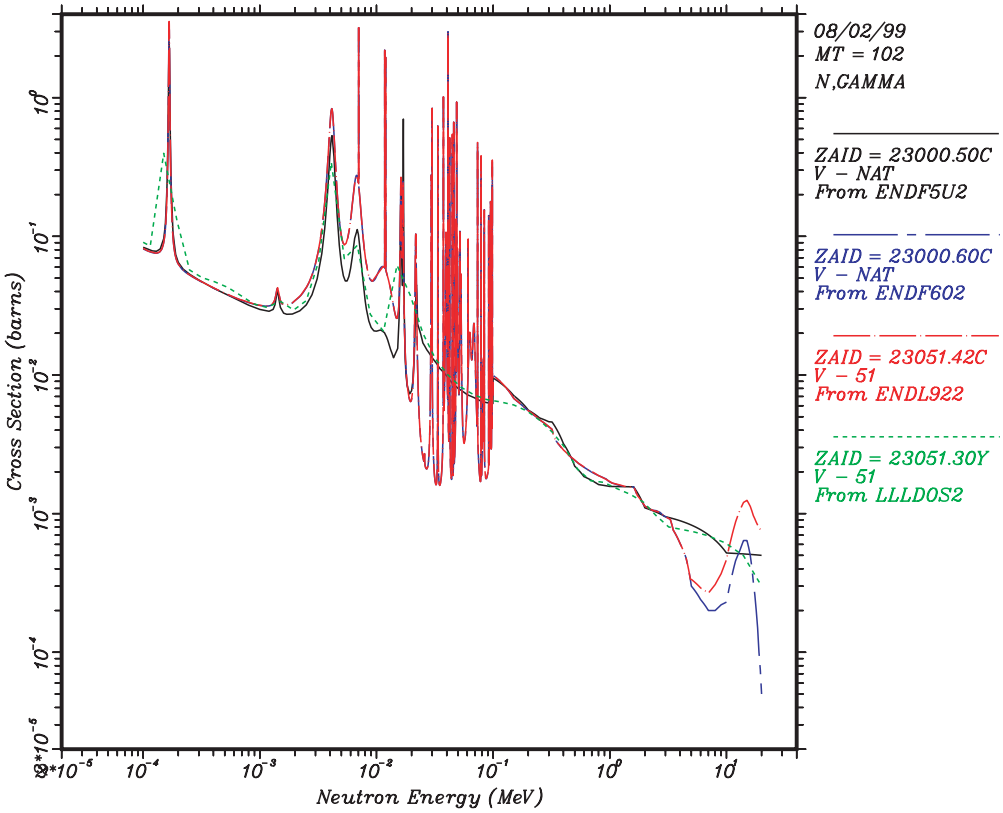

07/30/99
Np – 237
MT = 18
TOTAL FISSION
ZAID = 93237.55C
From RMCCSA2
ZAID = 93237.60C
From ENDF602
ZAID = 93237.42C
From ENDL922
ZAID = 93237.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

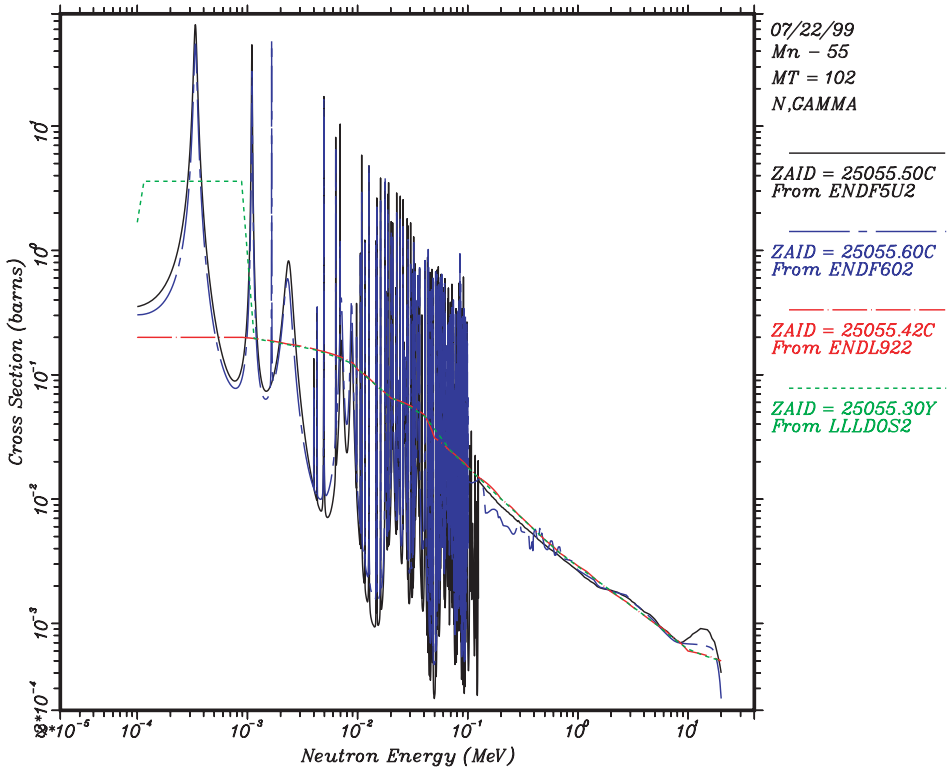

07/30/99
Pu − 239
MT = 18
TOTAL FISSION
ZAID = 94239.55C
From RMCCS2
ZAID = 94239.60C
From ENDF602
ZAID = 94239.42C
From ENDL922
ZAID = 94239.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

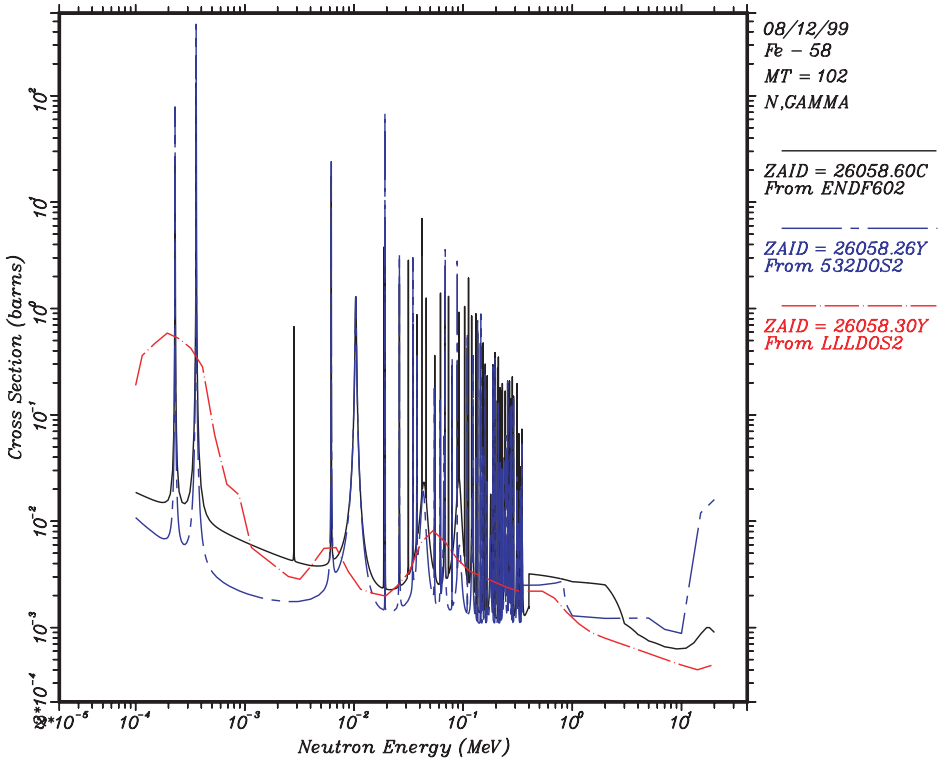
Appendix B

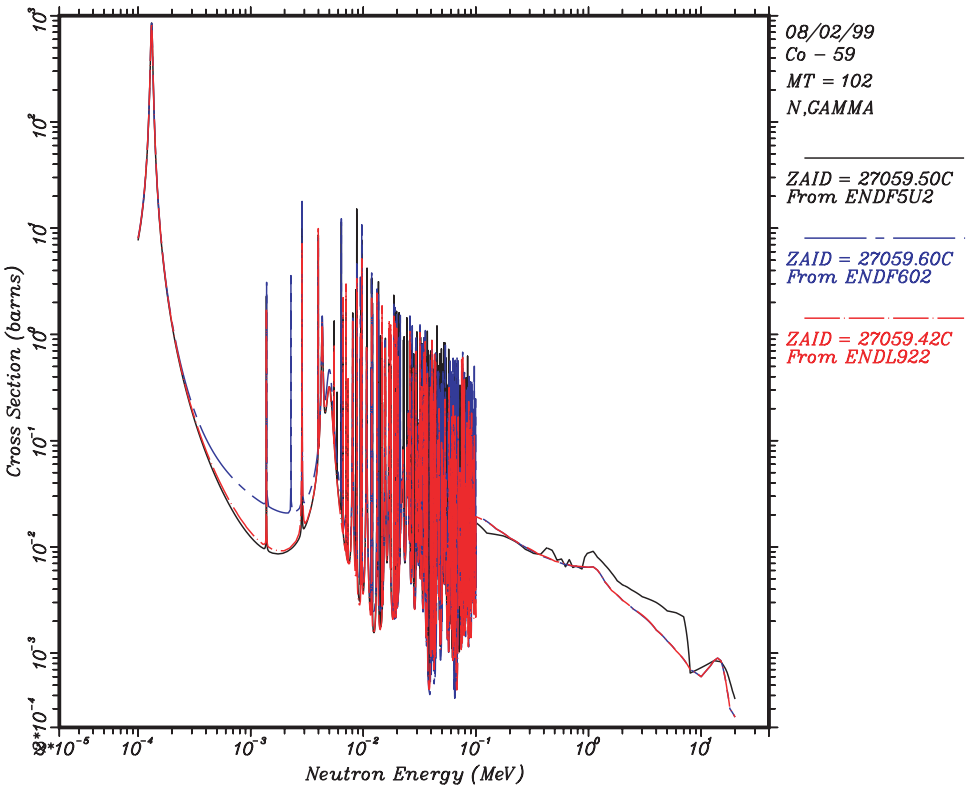
Plots of the (n,γ) Cross Sections

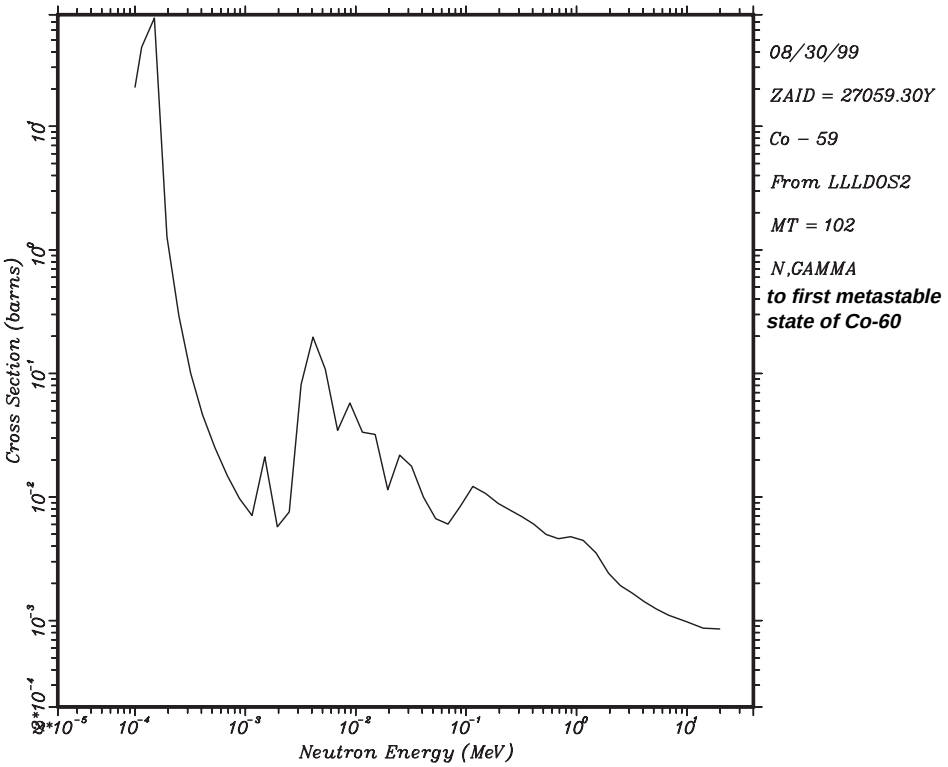

08/12/99
Sc – 45
MT = 102
N,GAMMA
ZAID = 21045.60C
From ENDF602
ZAID = 21045.26Y
From 532DOS2
Cross Section (barns)
Neutron Energy (MeV)

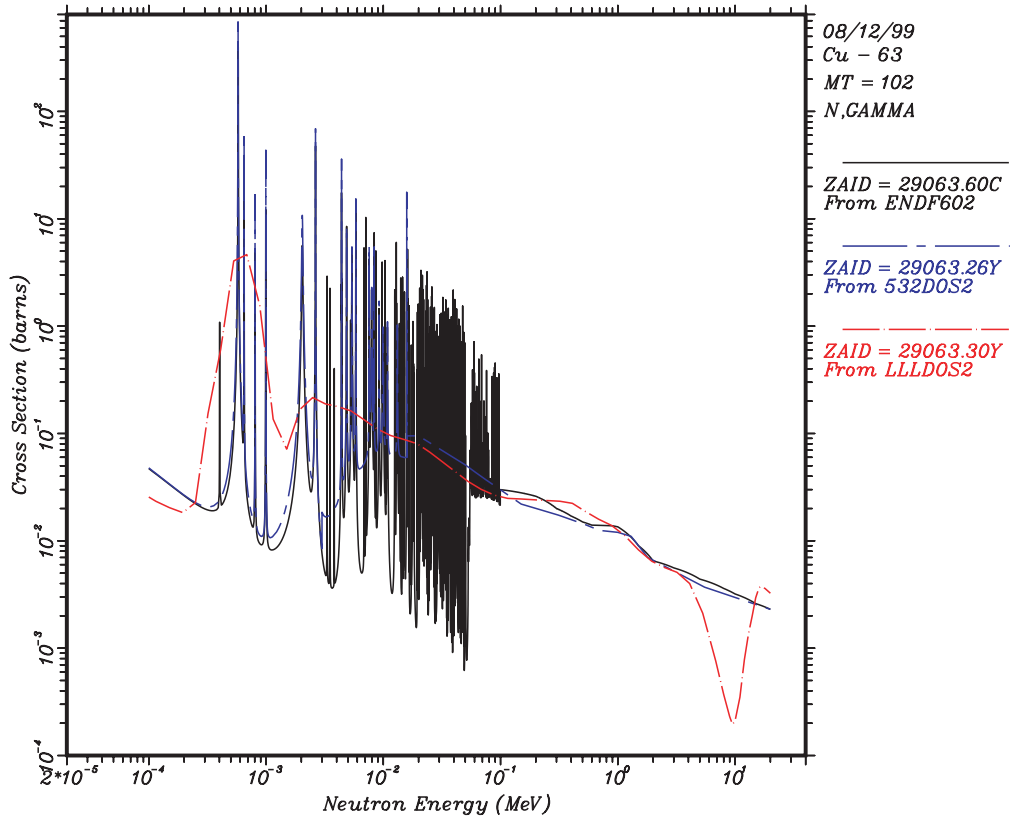

08/02/99
MT = 102
N,GAMMA
ZAID = 23000.50C
V – NAT
From ENDF5U2
ZAID = 23000.60C
V – NAT
From ENDF602
ZAID = 23051.42C
V – 51
From ENDL922
ZAID = 23051.30Y
V – 51
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

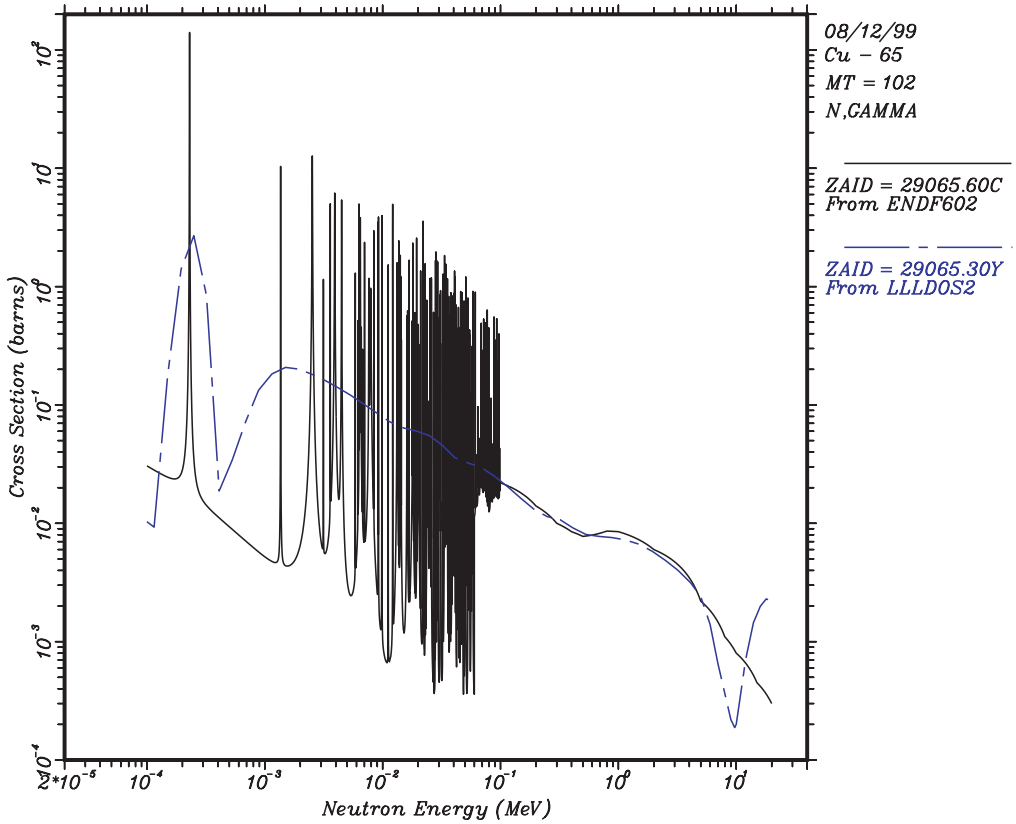

07/22/99
Mn – 55
MT = 102
N,GAMMA
ZAID = 25055.50C
From ENDF5U2
ZAID = 25055.60C
From ENDF602
ZAID = 25055.42C
From ENDL922
ZAID = 25055.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

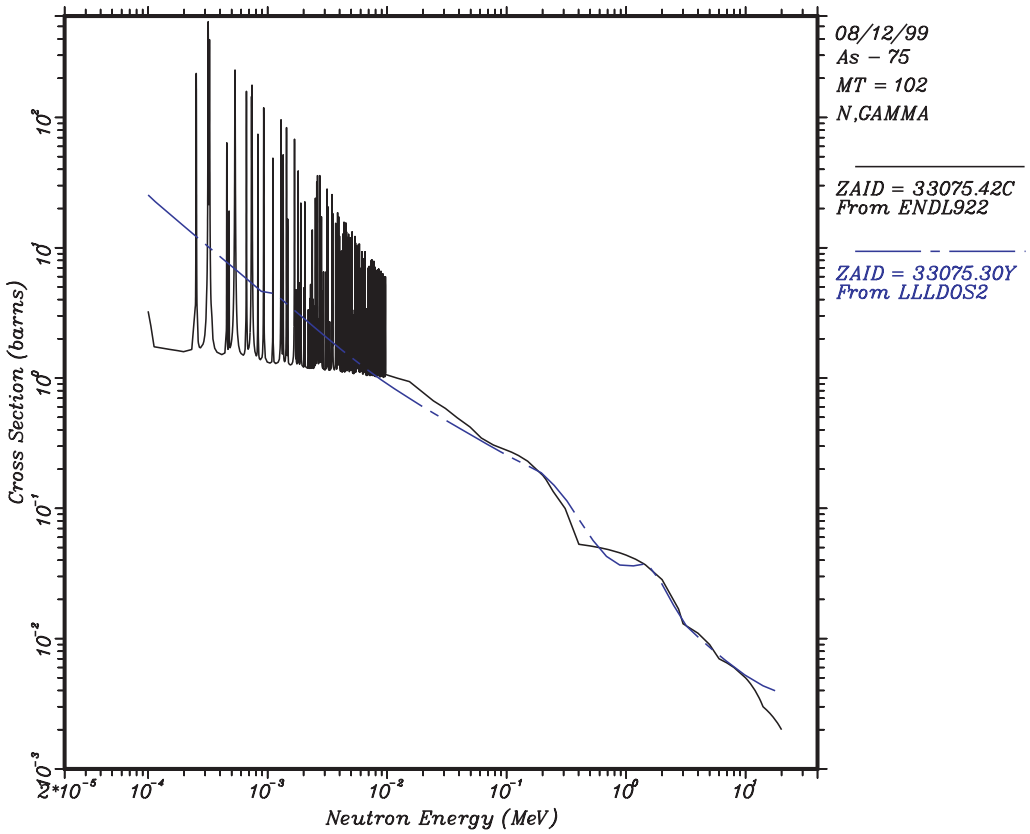

08/12/99
Fe – 58
MT = 102
N,GAMMA
ZAID = 26058.60C
From ENDF602
ZAID = 26058.26Y
From 532DOS2
ZAID = 26058.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

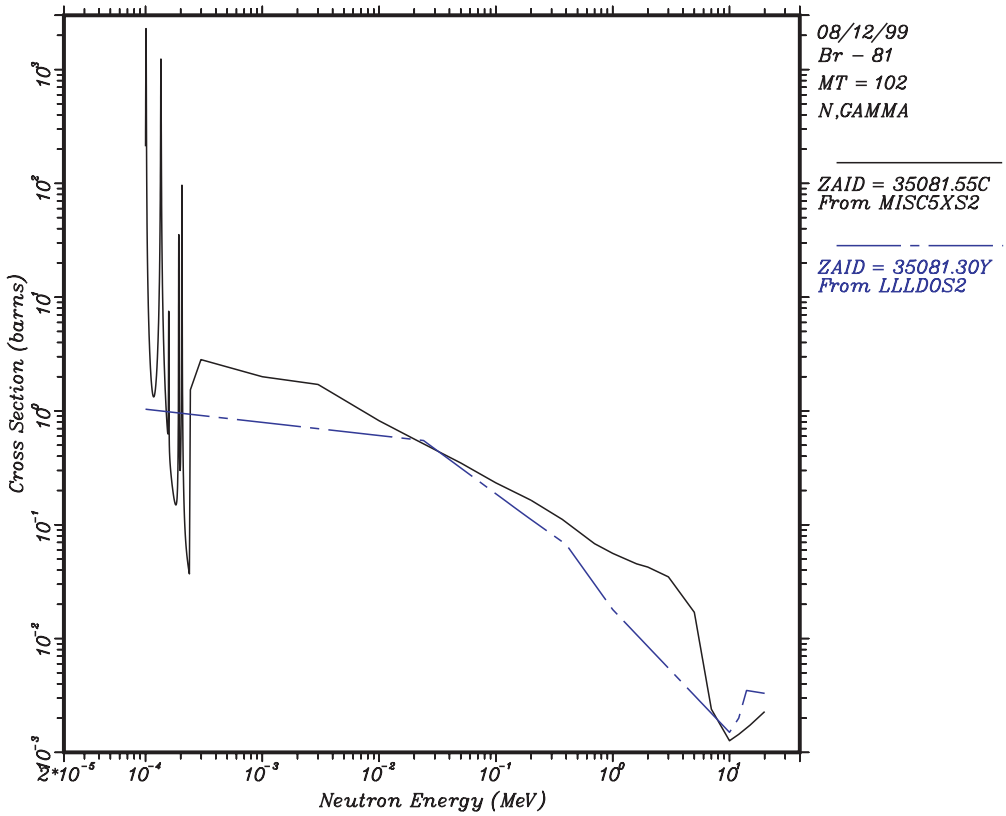

08/02/99
Co – 59
MT = 102
N,GAMMA
ZAID = 27059.50C
From ENDF5U2
ZAID = 27059.60C
From ENDF602
ZAID = 27059.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

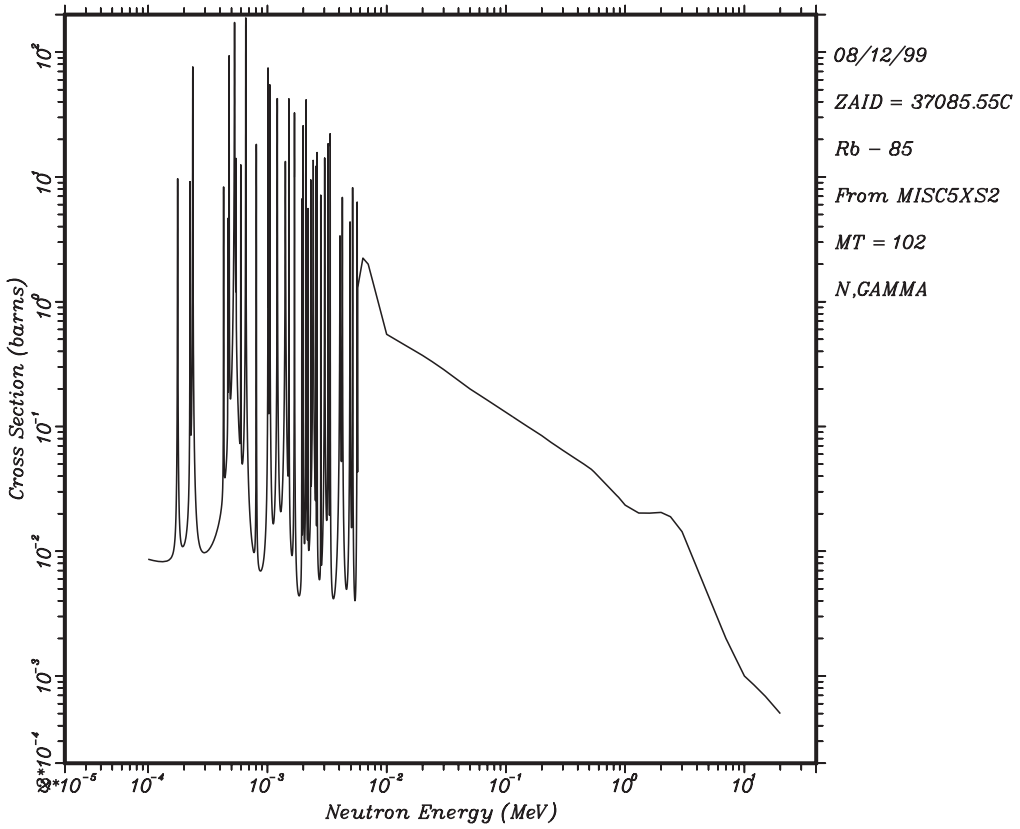

08/30/99
ZAID = 27059.30Y
Co – 59
From LLLDOS2
MT = 102
N,GAMMA
to first metastable
state of Co-60
Cross Section (barns)
Neutron Energy (MeV)

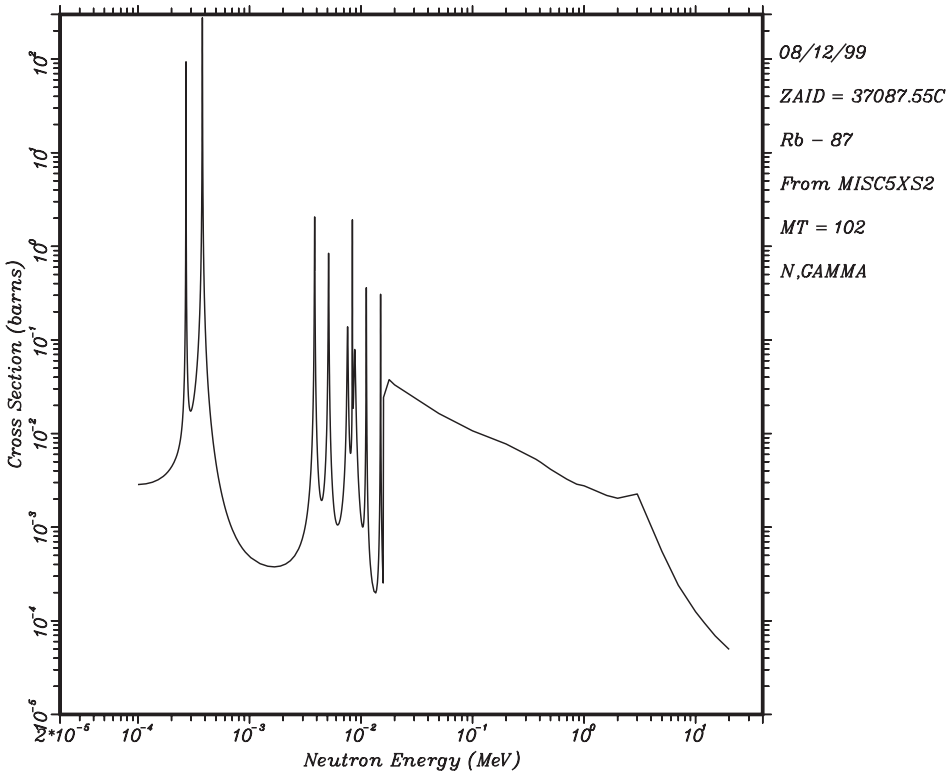

08/12/99
Cu - 63
MT = 102
N,GAMMA
ZAID = 29063.60C
From ENDF602
ZAID = 29063.26Y
From 532DOS2
ZAID = 29063.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

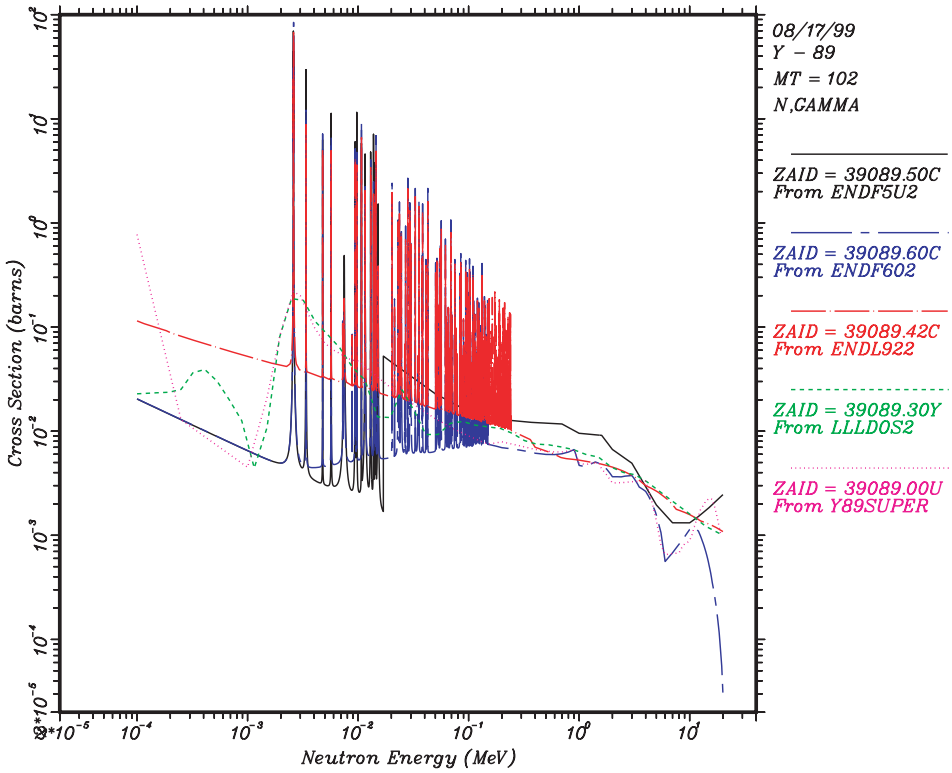

08/12/99
Cu - 65
MT = 102
N,GAMMA
ZAID = 29065.60C
From ENDF602
ZAID = 29065.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

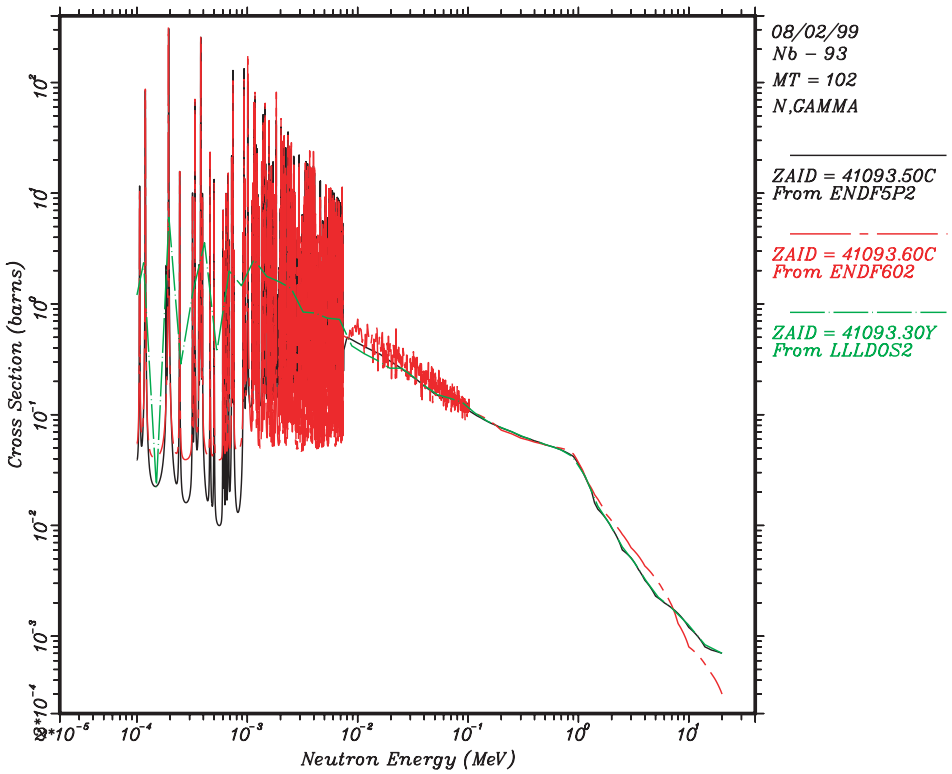

08/12/99
As – 75
MT = 102
N,GAMMA
ZAID = 33075.42C
From ENDL922
ZAID = 33075.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

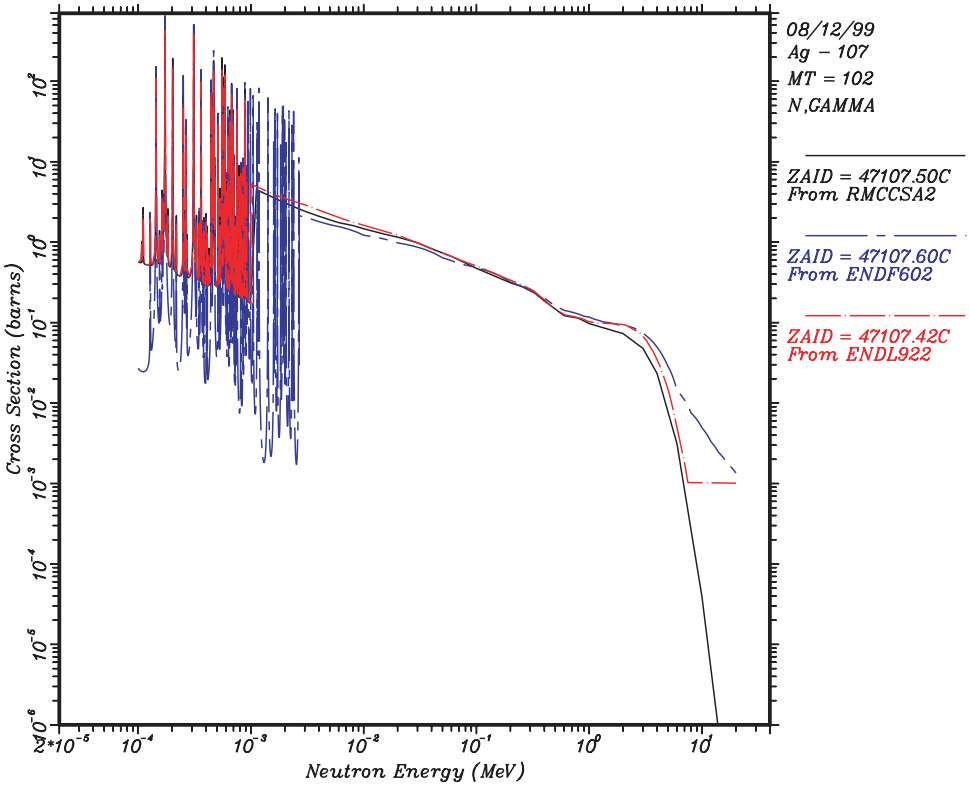

08/12/99
Br – 81
MT = 102
N,GAMMA
ZAID = 35081.55C
From MISC5XS2
ZAID = 35081.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

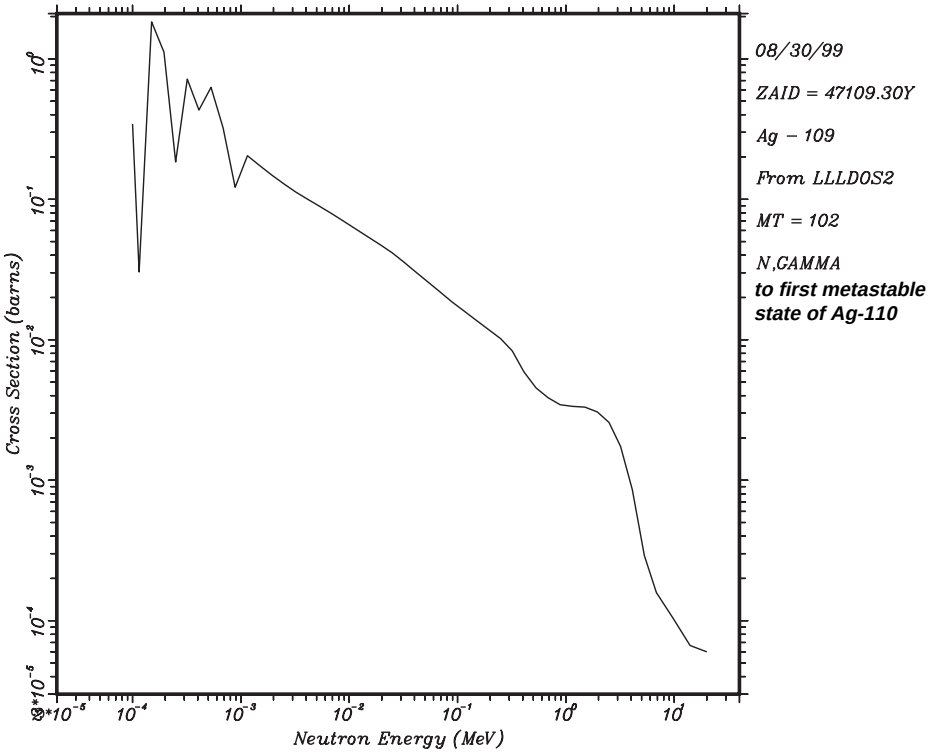

08/12/99
ZAID = 37085.55C
Rb - 85
From MISC5XS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)

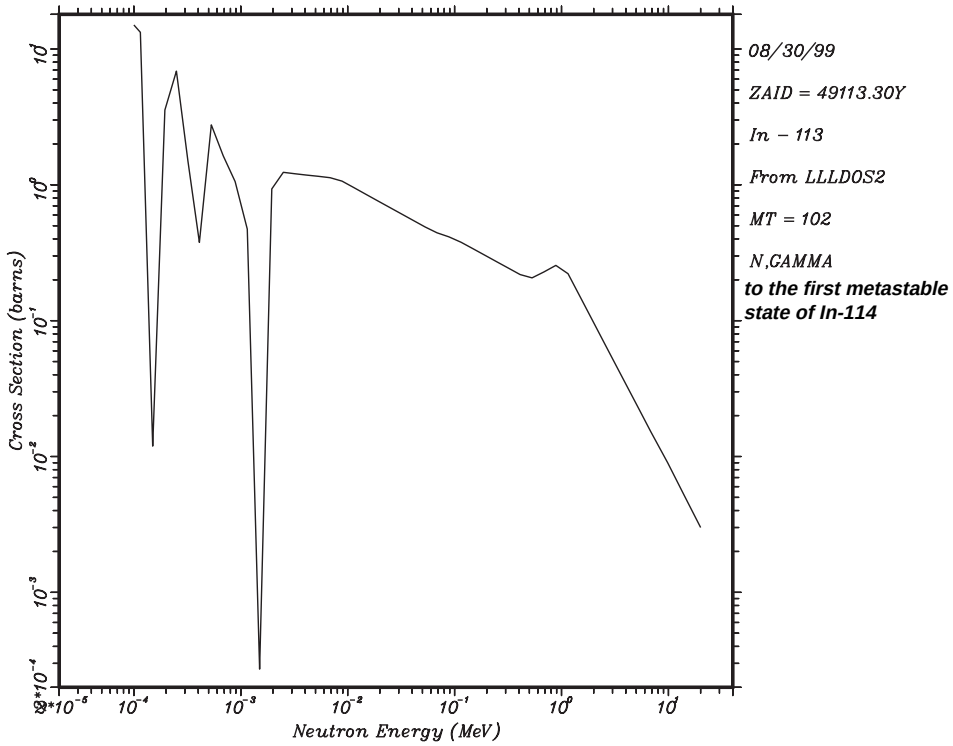

08/12/99
ZAID = 37087.55C
Rb - 87
From MISC5XS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)

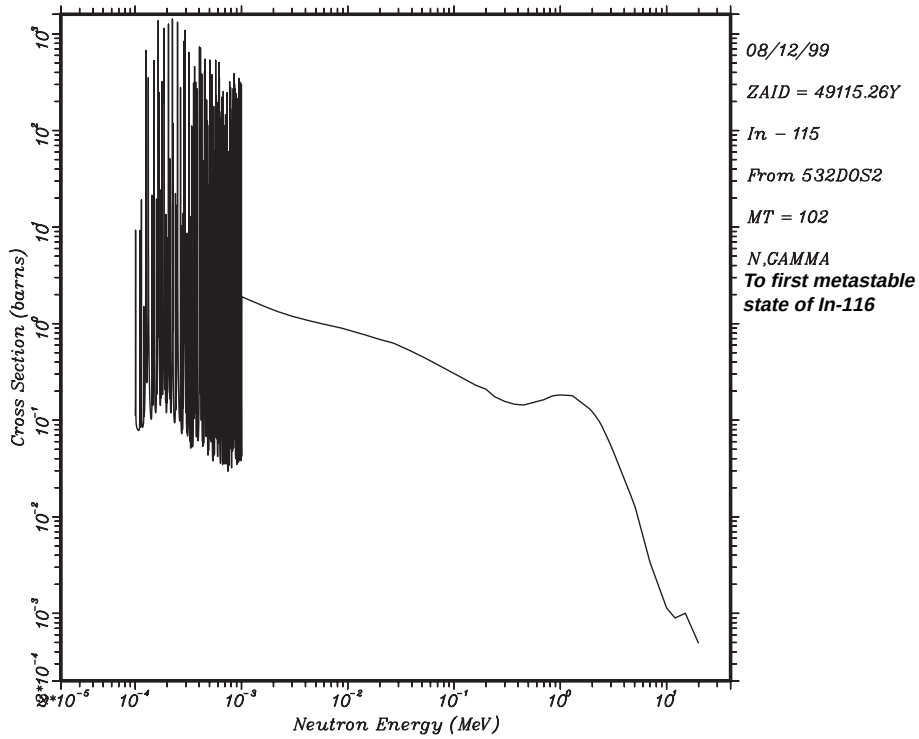

08/17/99
Y - 89
MT = 102
N,GAMMA
ZAID = 39089.50C
From ENDF5U2
ZAID = 39089.60C
From ENDF602
ZAID = 39089.42C
From ENDL922
ZAID = 39089.30Y
From LLLDOS2
ZAID = 39089.00U
From Y89SUPER
Cross Section (barns)
Neutron Energy (MeV)

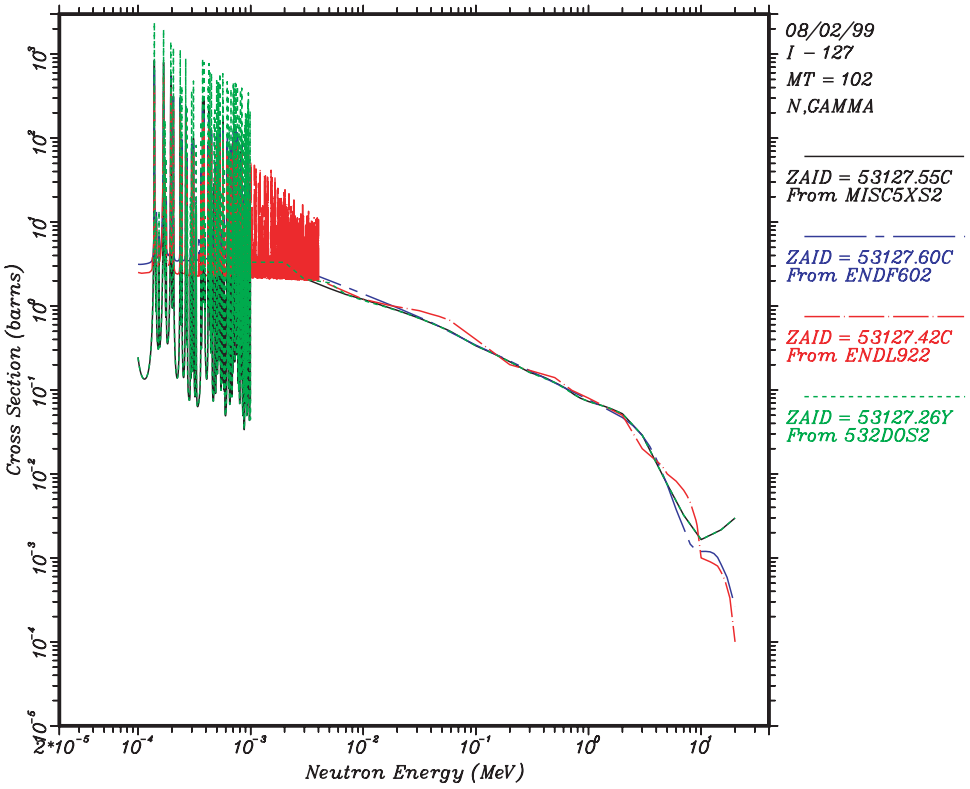

08/02/99
Nb - 93
MT = 102
N,GAMMA
ZAID = 41093.50C
From ENDF5P2
ZAID = 41093.60C
From ENDF602
ZAID = 41093.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

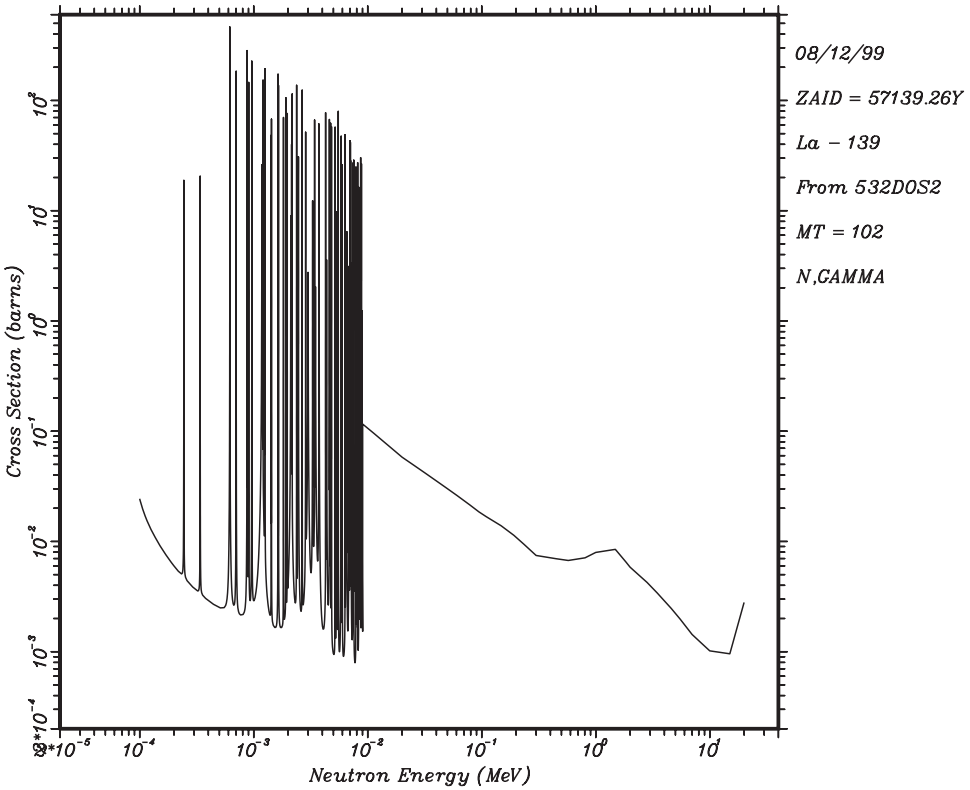

08/12/99
Ag – 107
MT = 102
N,CAMMA
ZAID = 47107.50C
From RMCCSA2
ZAID = 47107.60C
From ENDF602
ZAID = 47107.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

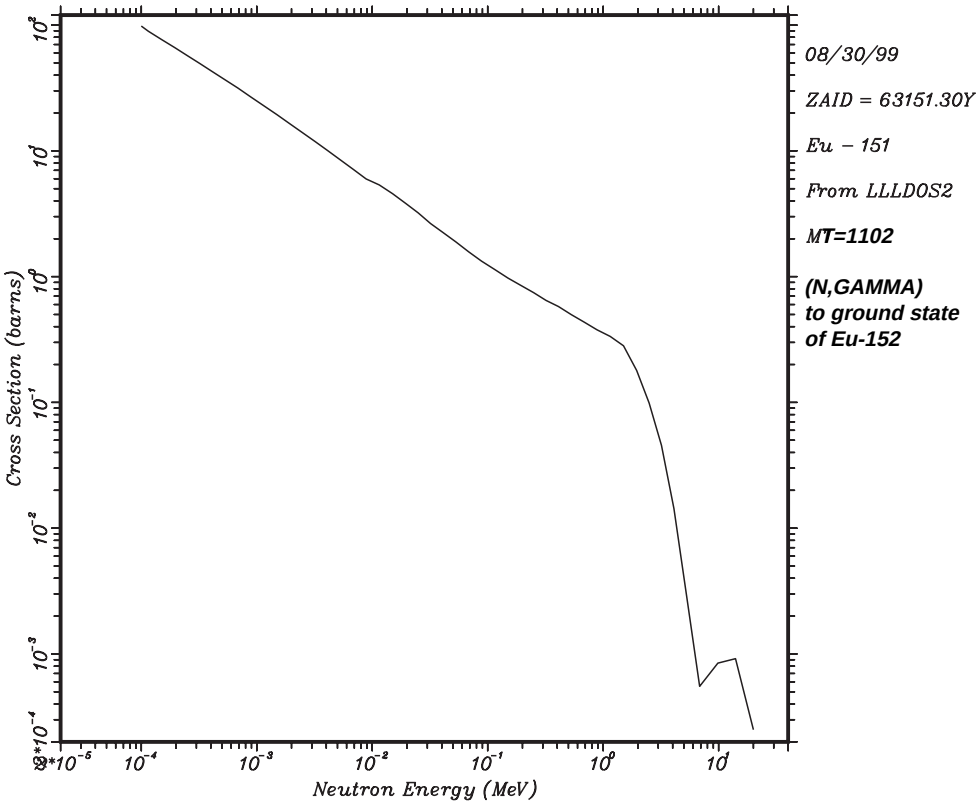

08/30/99
ZAID = 47109.30Y
Ag – 109
From LLLDOS2
MT = 102
N,CAMMA
to first metastable
state of Ag-110
Cross Section (barns)
Neutron Energy (MeV)

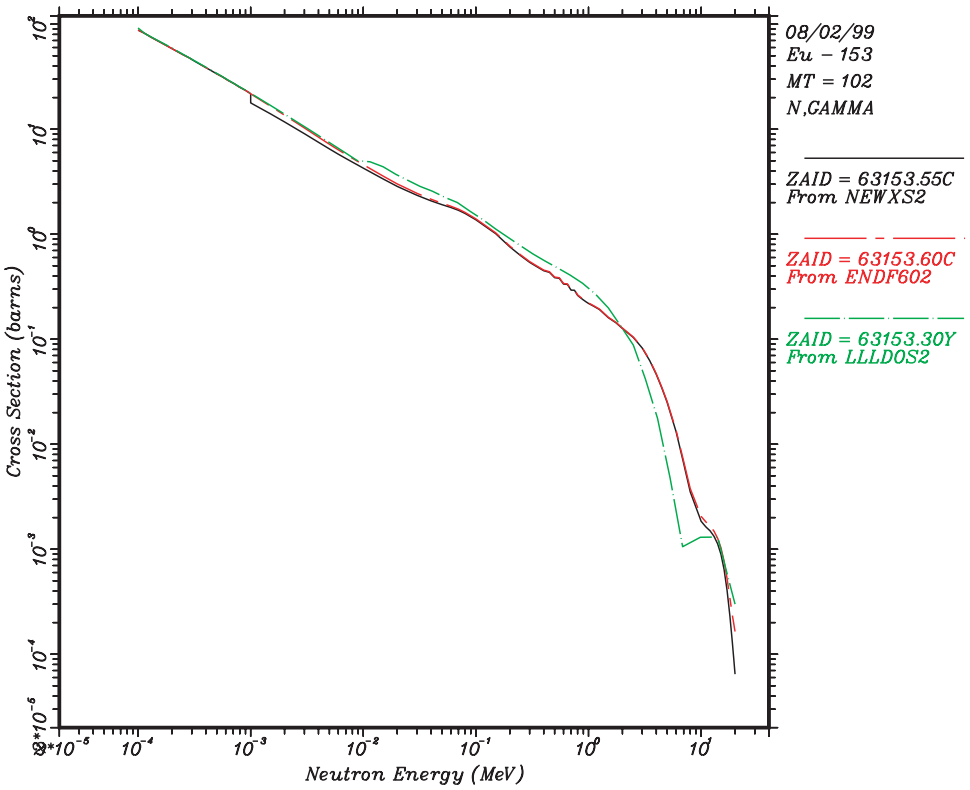

08/30/99
ZAID = 49113.30Y
In – 113
From LLLDOS2
MT = 102
N,GAMMA
to the first metastable
state of In-114
Cross Section (barns)
Neutron Energy (MeV)

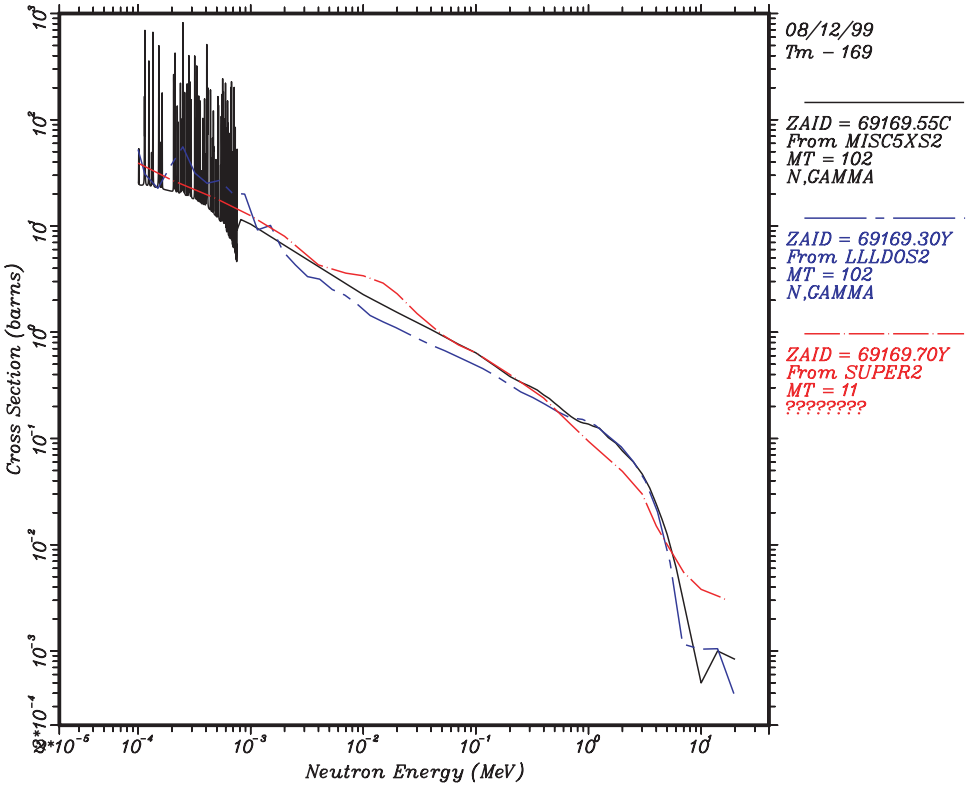

08/12/99
ZAID = 49115.26Y
In – 115
From 532DOS2
MT = 102
N,GAMMA
To first metastable
state of In-116
Cross Section (barns)
Neutron Energy (MeV)

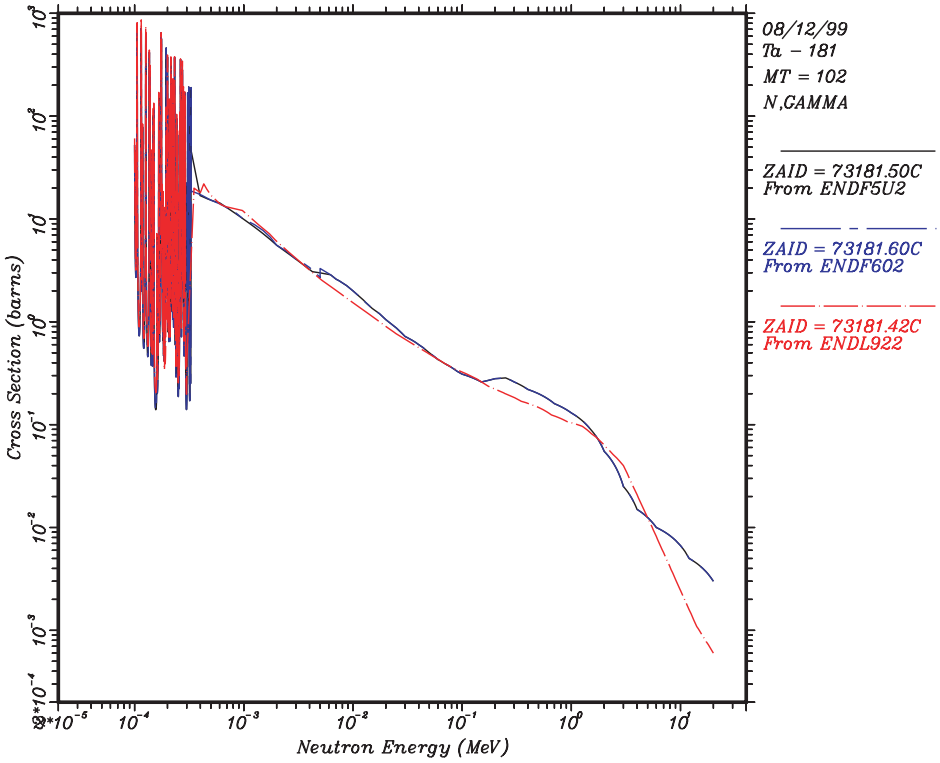

08/02/99
I – 127
MT = 102
N,GAMMA
ZAID = 53127.55C
From MISC5XS2
ZAID = 53127.60C
From ENDF602
ZAID = 53127.42C
From ENDL922
ZAID = 53127.26Y
From 532DOS2
Cross Section (barns)
Neutron Energy (MeV)

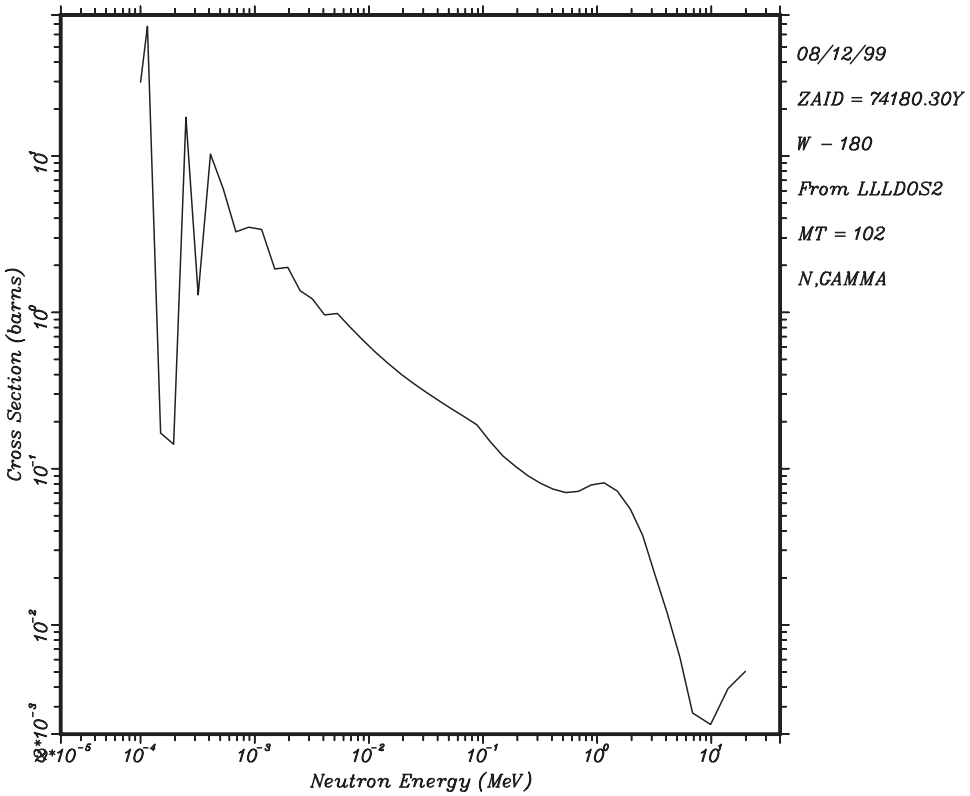

08/12/99
ZAID = 57139.26Y
La – 139
From 532DOS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)

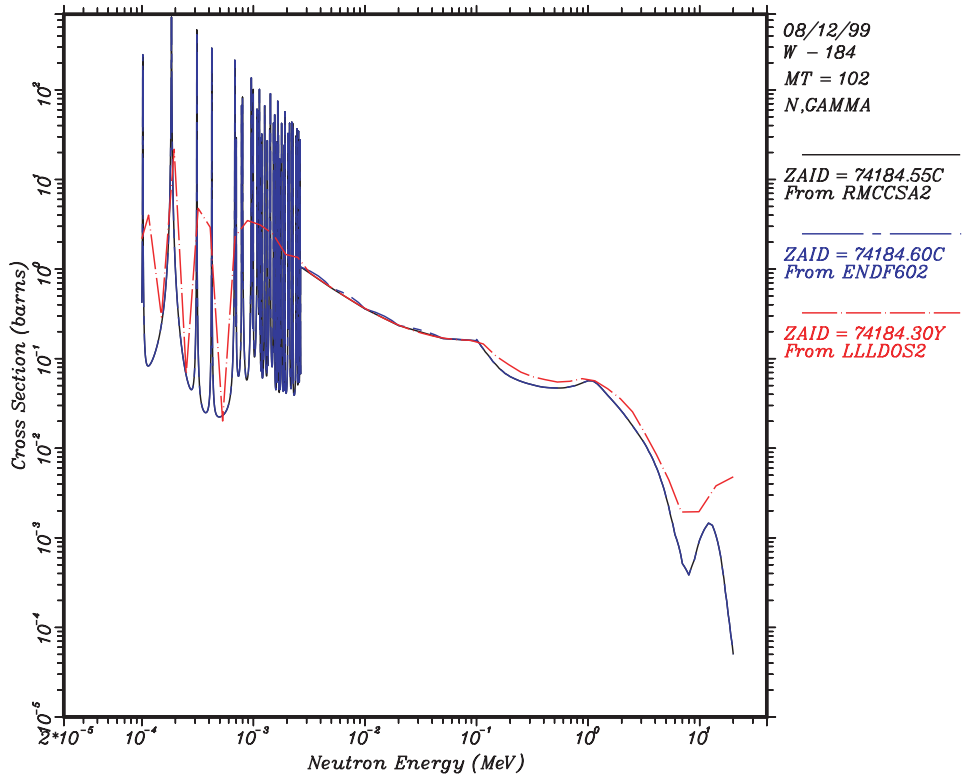

08/30/99
ZAID = 63151.30Y
Eu – 151
From LLLDOS2
MT=1102
(N,GAMMA)
to ground state
of Eu-152
Cross Section (barns)
Neutron Energy (MeV)

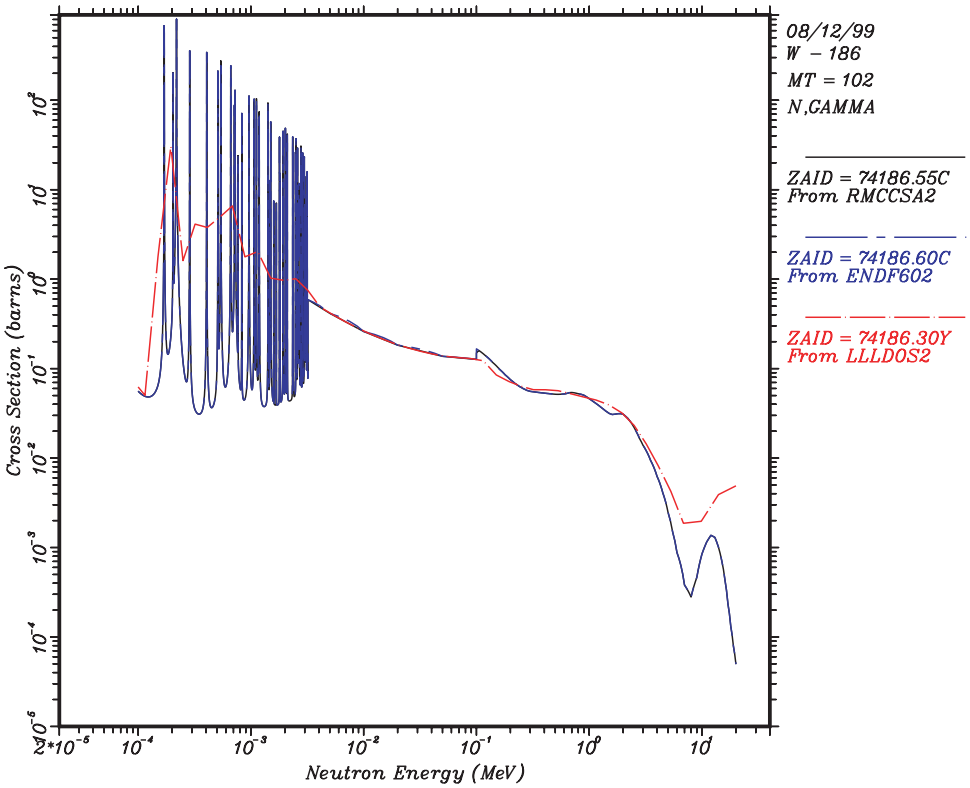

08/02/99
Eu – 153
MT = 102
N,GAMMA
ZAID = 63153.55C
From NEWXS2
ZAID = 63153.60C
From ENDF602
ZAID = 63153.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

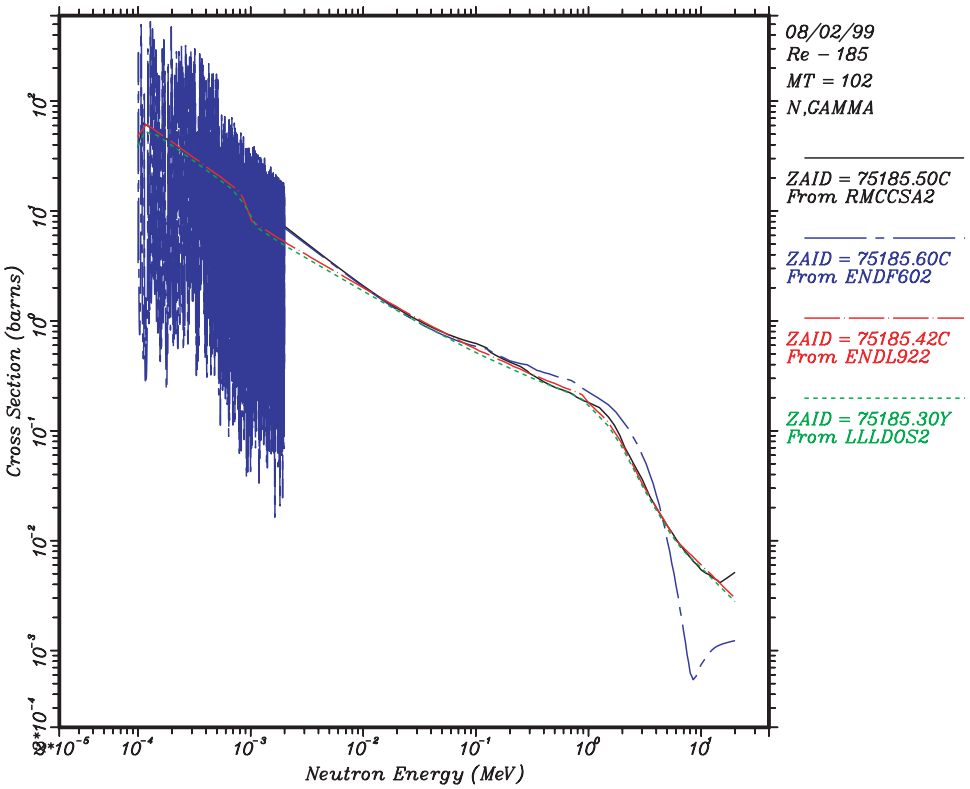

08/12/99
Tm – 169
ZAID = 69169.55C
From MISC5XS2
MT = 102
N,GAMMA
ZAID = 69169.30Y
From LLLDOS2
MT = 102
N,GAMMA
ZAID = 69169.70Y
From SUPER2
MT = 11
????????
Cross Section (barns)
Neutron Energy (MeV)

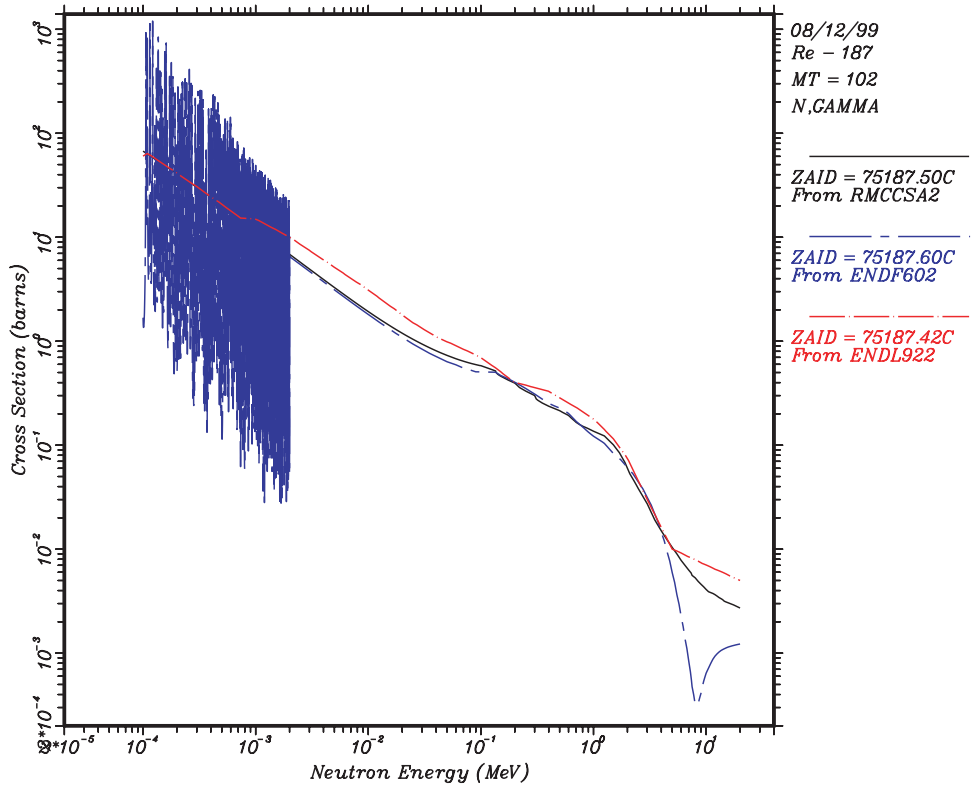

08/12/99
Ta – 181
MT = 102
N,GAMMA
ZAID = 73181.50C
From ENDF5U2
ZAID = 73181.60C
From ENDF602
ZAID = 73181.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

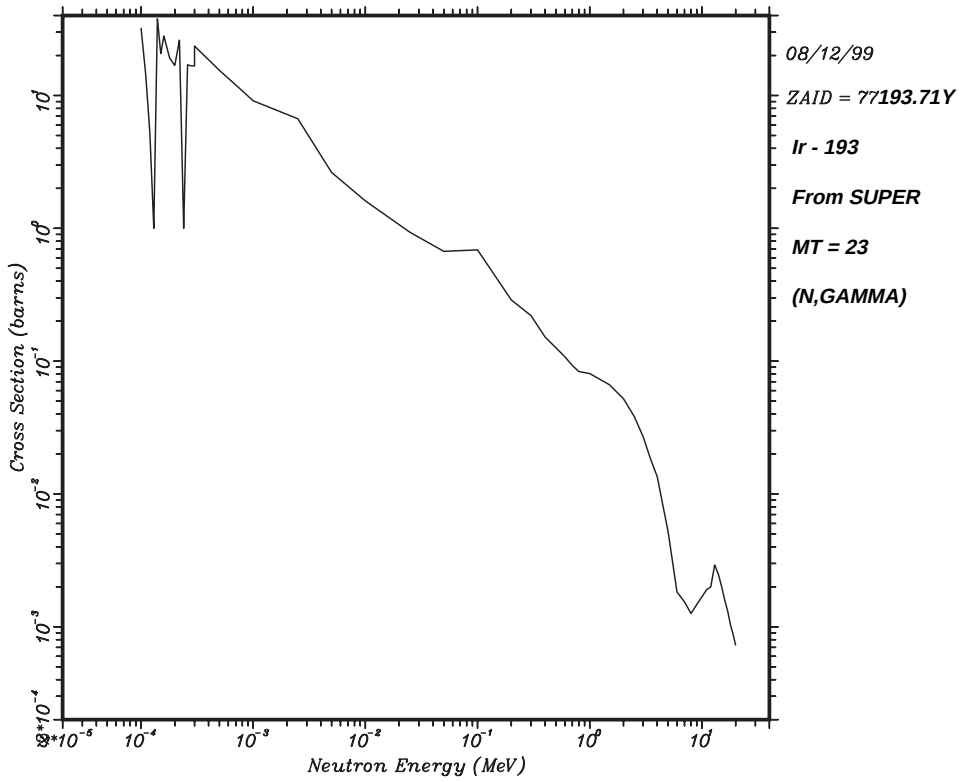

08/12/99
ZAID = 74180.30Y
W – 180
From LLLDOS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)

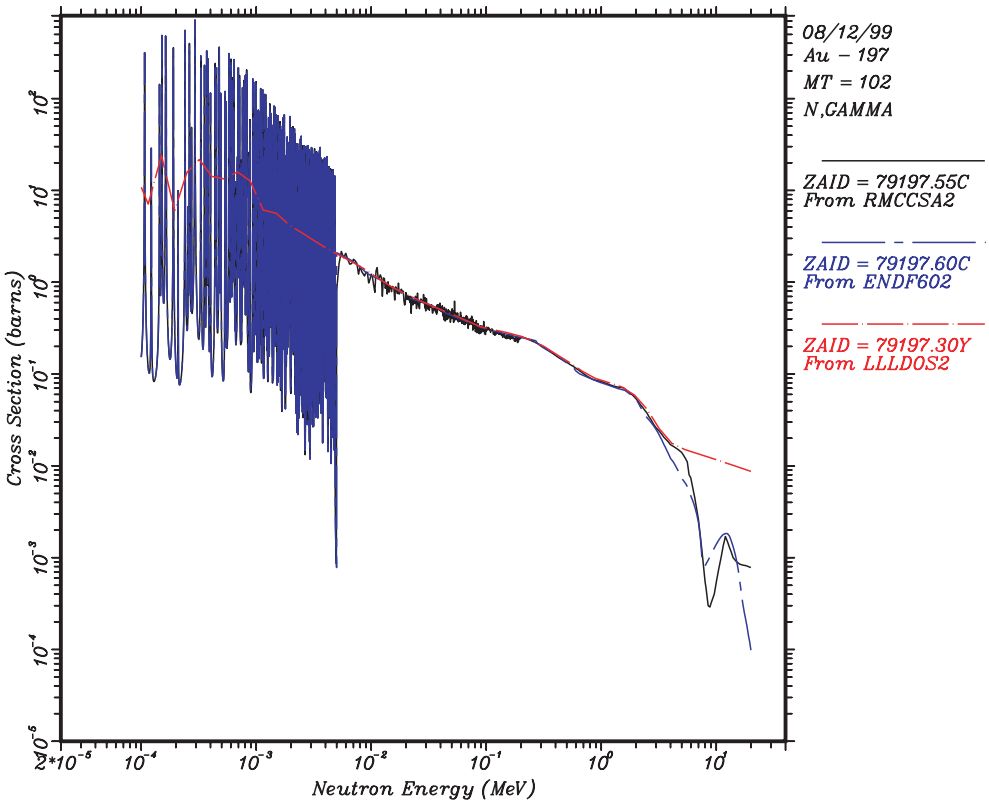

08/12/99
W – 184
MT = 102
N,GAMMA
ZAID = 74184.55C
From RMCCSA2
ZAID = 74184.60C
From ENDF602
ZAID = 74184.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

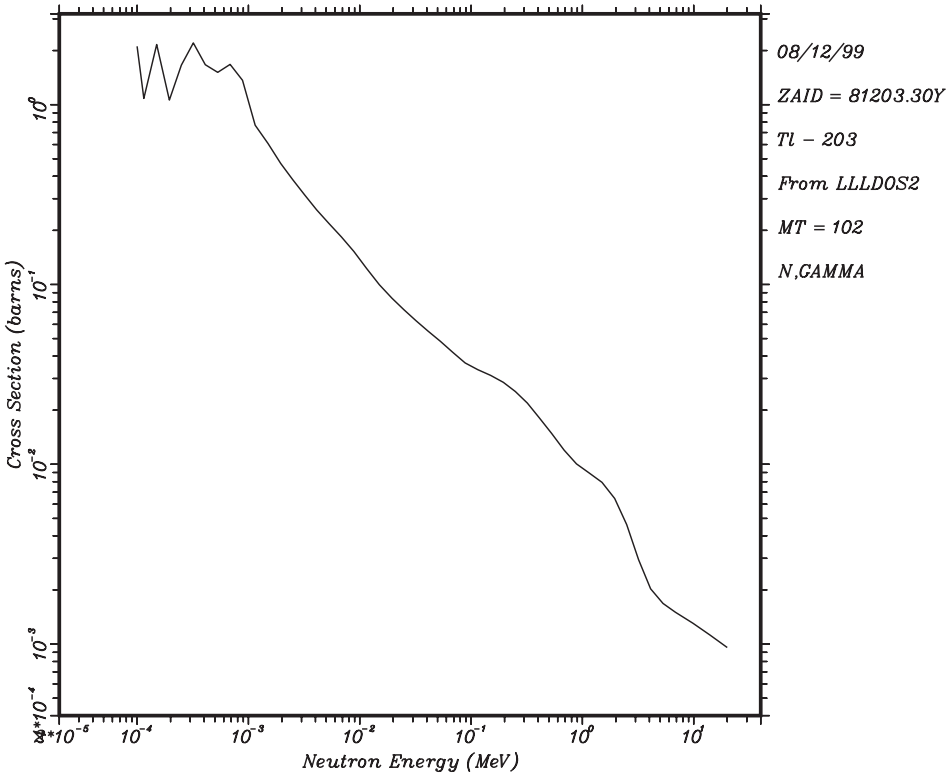

08/12/99
W – 186
MT = 102
N,CAMMA
ZAID = 74186.55C
From RMCCSA2
ZAID = 74186.60C
From ENDF602
ZAID = 74186.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

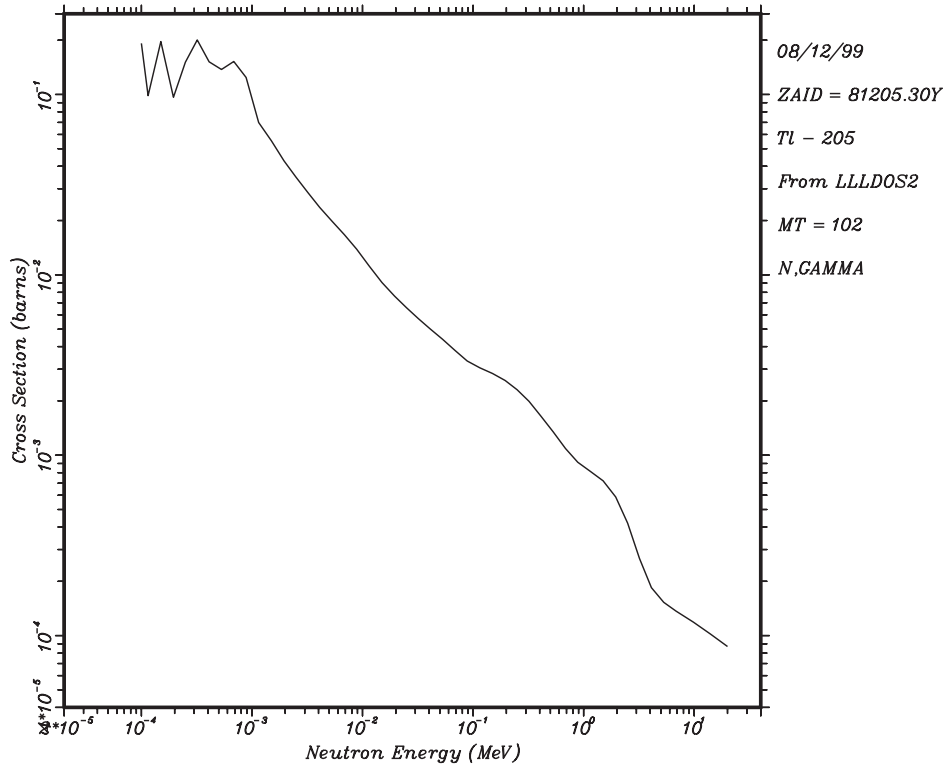

08/02/99
Re – 185
MT = 102
N,CAMMA
ZAID = 75185.50C
From RMCCSA2
ZAID = 75185.60C
From ENDF602
ZAID = 75185.42C
From ENDL922
ZAID = 75185.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

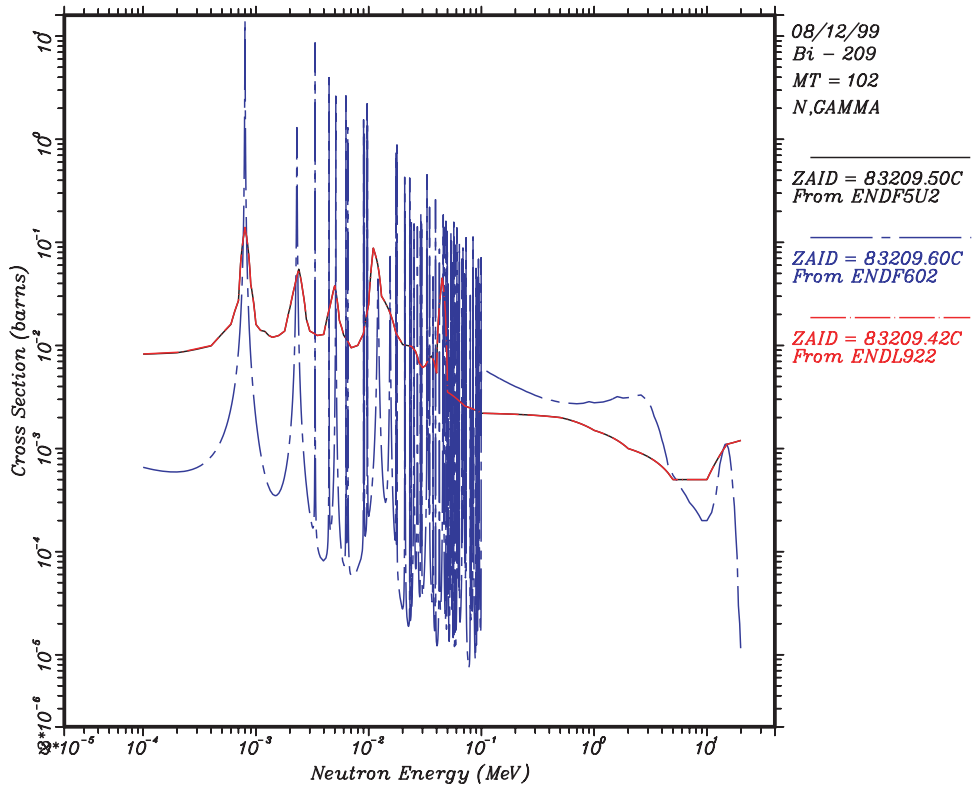

08/12/99
Re – 187
MT = 102
N,GAMMA
ZAID = 75187.50C
From RMCCSA2
ZAID = 75187.60C
From ENDF602
ZAID = 75187.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

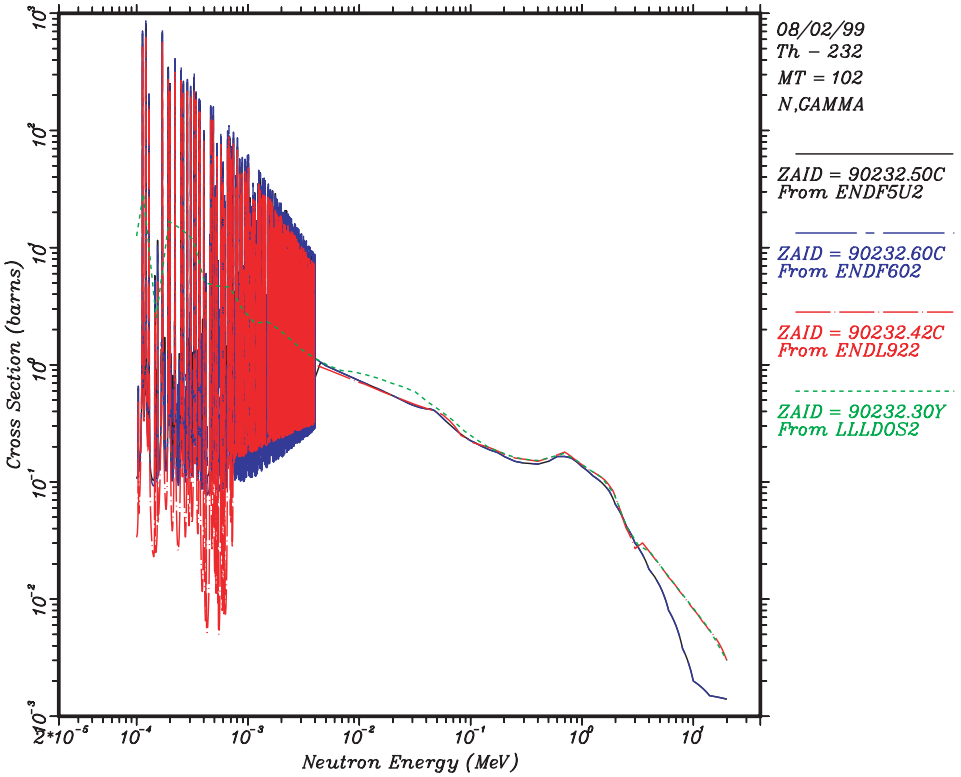

08/12/99
ZAID = 77193.71Y
Ir - 193
From SUPER
MT = 23
(N,GAMMA)
Cross Section (barns)
Neutron Energy (MeV)

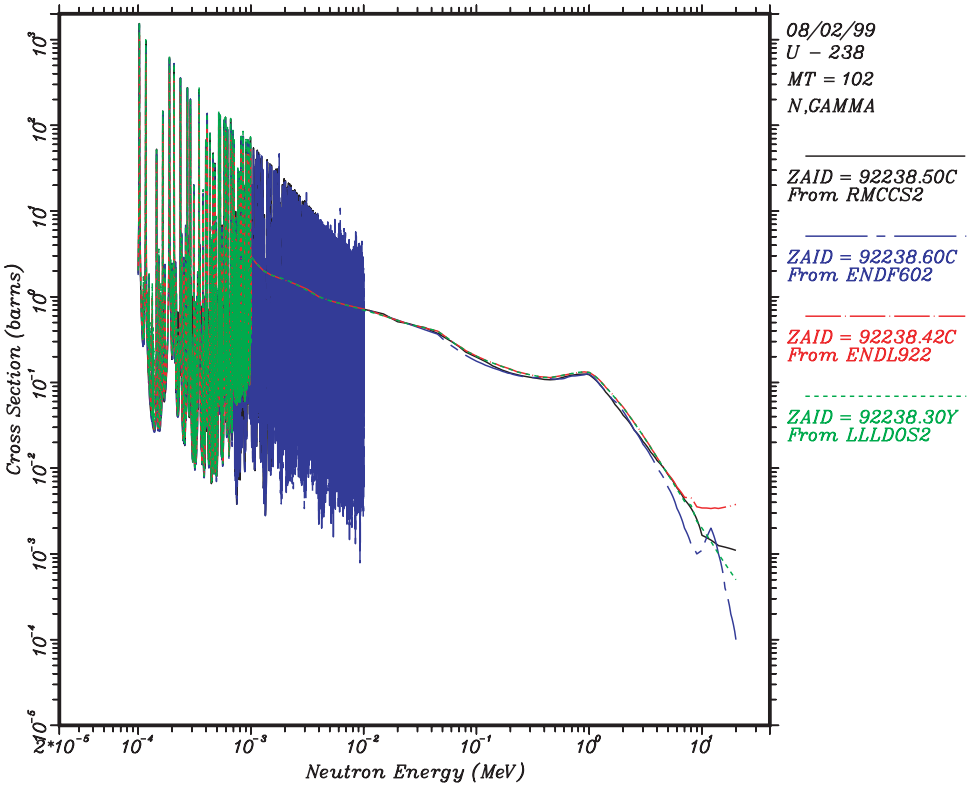

08/12/99
Au – 197
MT = 102
N,GAMMA
ZAID = 79197.55C
From RMCCSA2
ZAID = 79197.60C
From ENDF602
ZAID = 79197.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

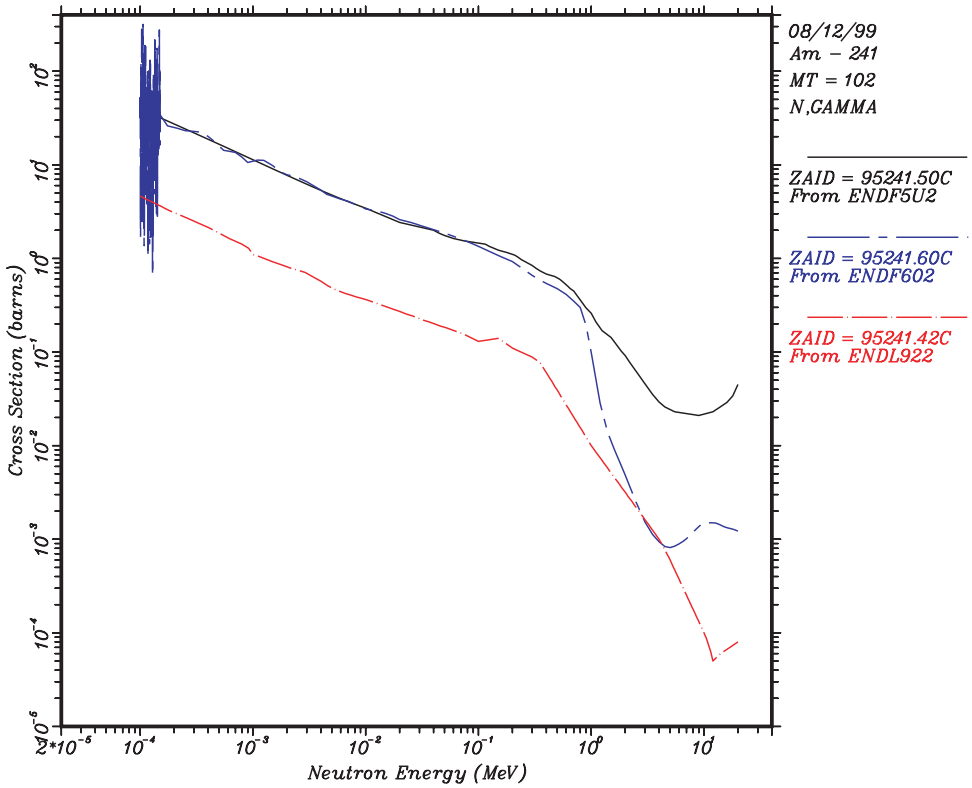

08/12/99
ZAID = 81203.30Y
Tl – 203
From LLLDOS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)


08/12/99
ZAID = 81205.30Y
Tl - 205
From LLLDOS2
MT = 102
N,GAMMA
Cross Section (barns)
Neutron Energy (MeV)


08/12/99
Bi - 209
MT = 102
N,GAMMA
ZAID = 83209.50C
From ENDF5U2
ZAID = 83209.60C
From ENDF602
ZAID = 83209.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

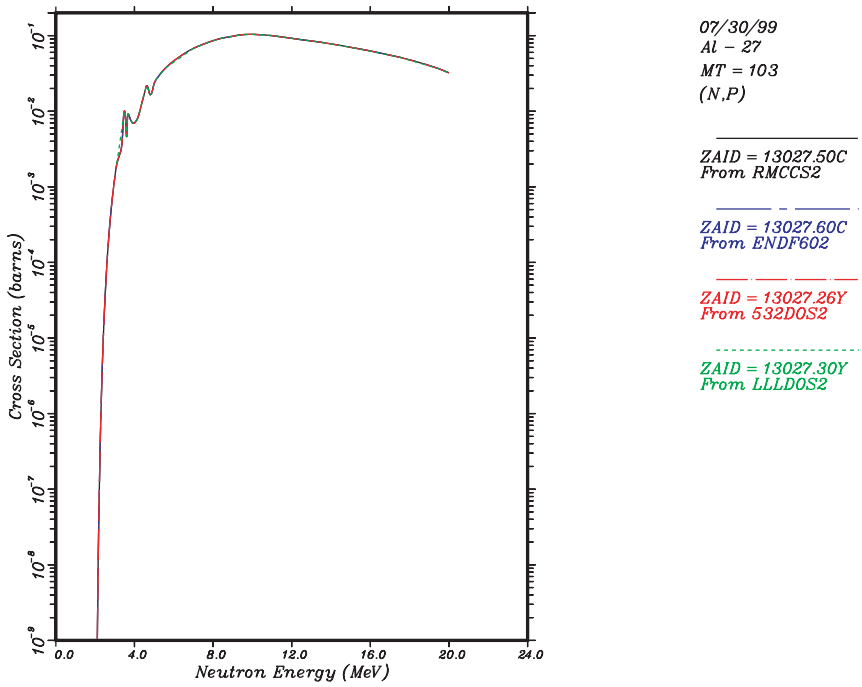

08/02/99
Th - 232
MT = 102
N,GAMMA
ZAID = 90232.50C
From ENDF5U2
ZAID = 90232.60C
From ENDF602
ZAID = 90232.42C
From ENDL922
ZAID = 90232.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

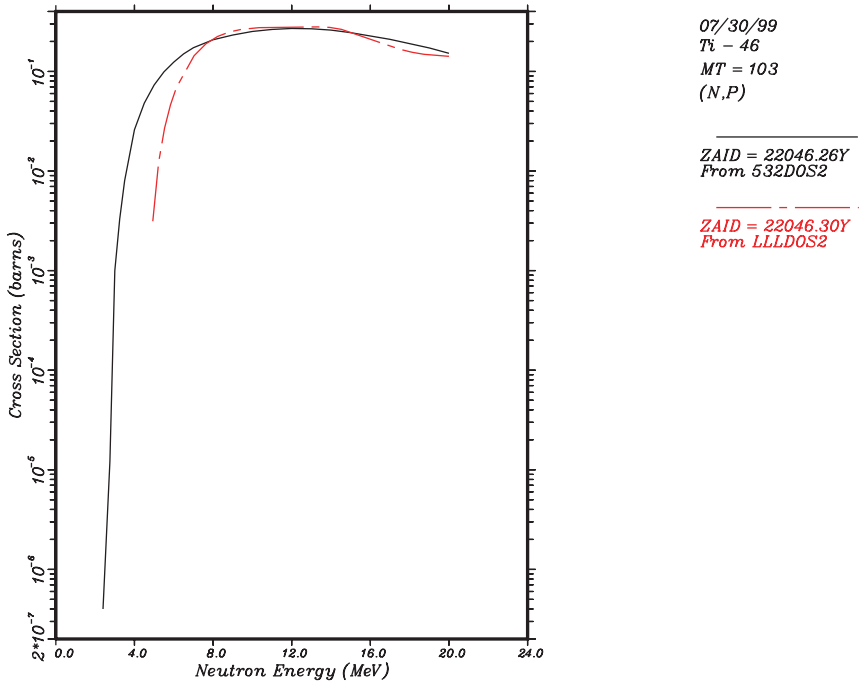

08/02/99
U - 238
MT = 102
N,GAMMA
ZAID = 92238.50C
From RMCCS2
ZAID = 92238.60C
From ENDF602
ZAID = 92238.42C
From ENDL922
ZAID = 92238.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

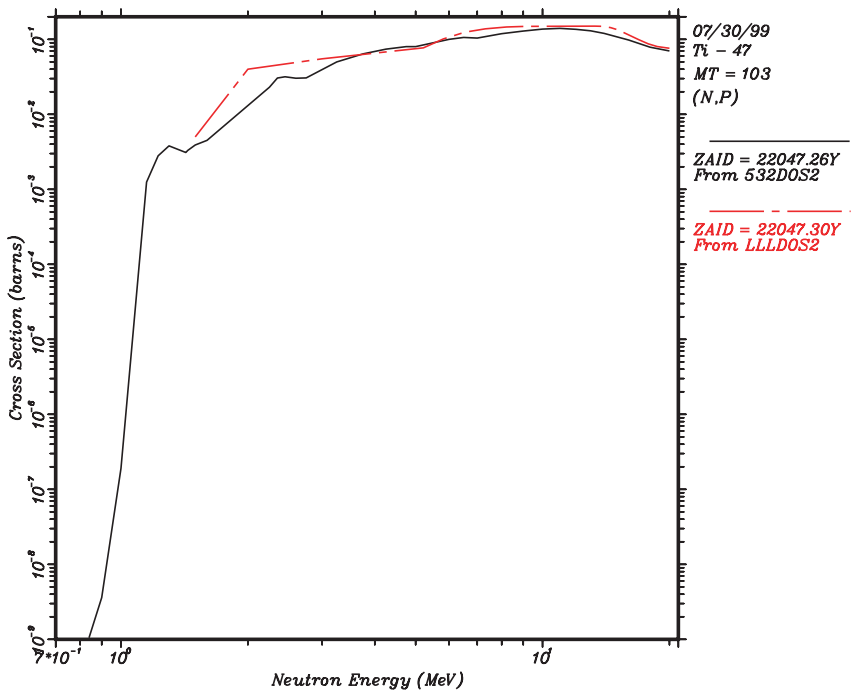

08/12/99
Am - 241
MT = 102
N,CAMMA
ZAID = 95241.50C
From ENDF5U2
ZAID = 95241.60C
From ENDF602
ZAID = 95241.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

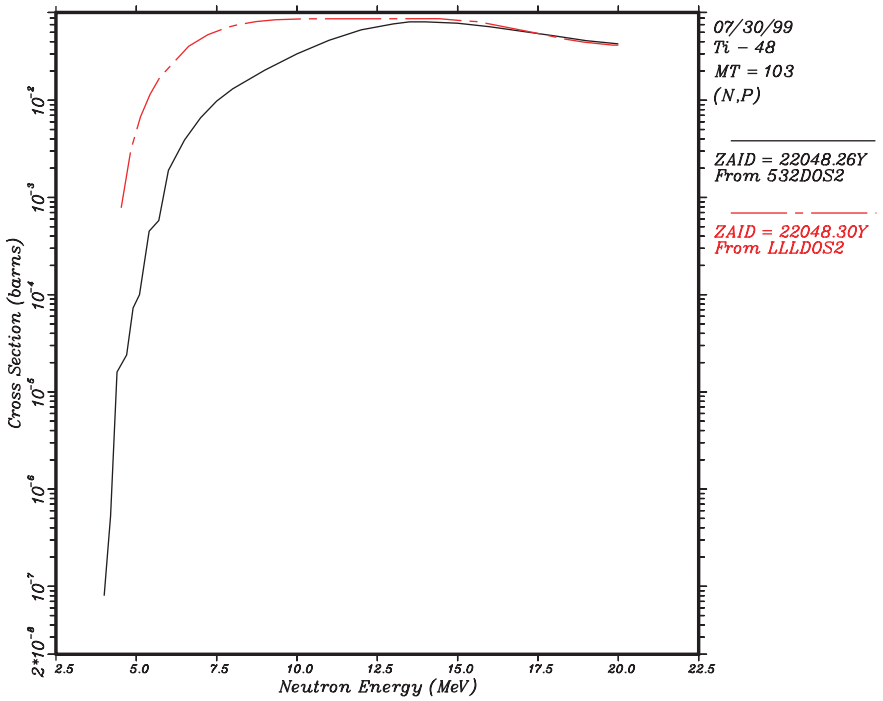
Appendix C

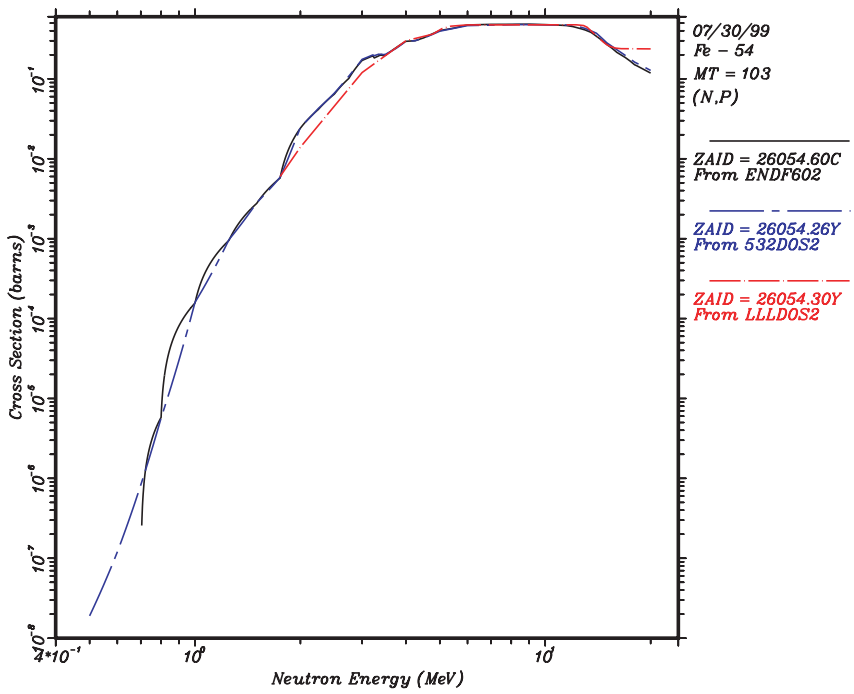
Plots of the (n,p) Cross Sections

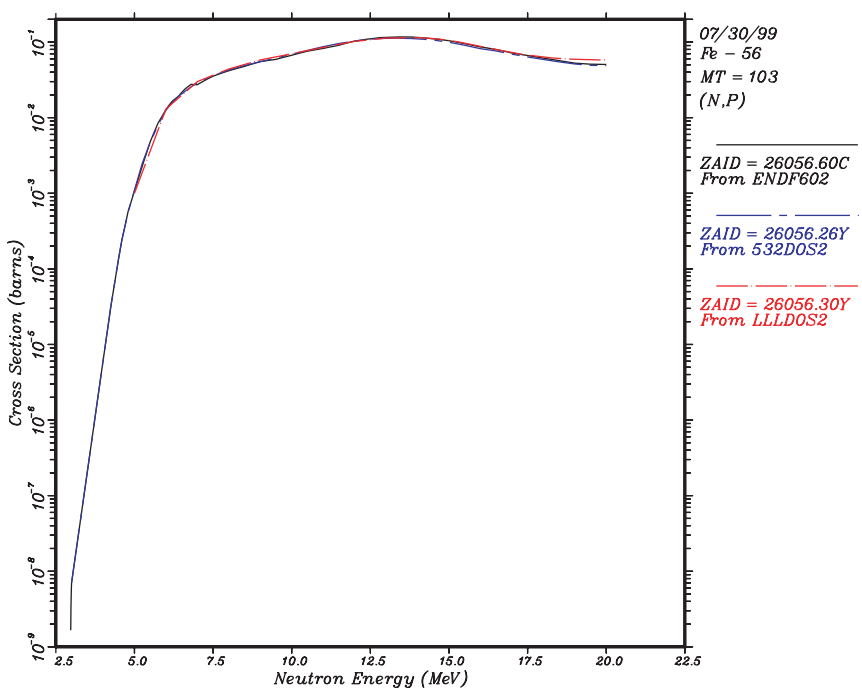

Cross Section (barns)
Neutron Energy (MeV)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
07/30/99
Al – 27
MT = 103
(N,P)
ZAID = 13027.50C
From RMCCS2
ZAID = 13027.60C
From ENDF602
ZAID = 13027.26Y
From 532DOS2
ZAID = 13027.30Y
From LLLDOS2

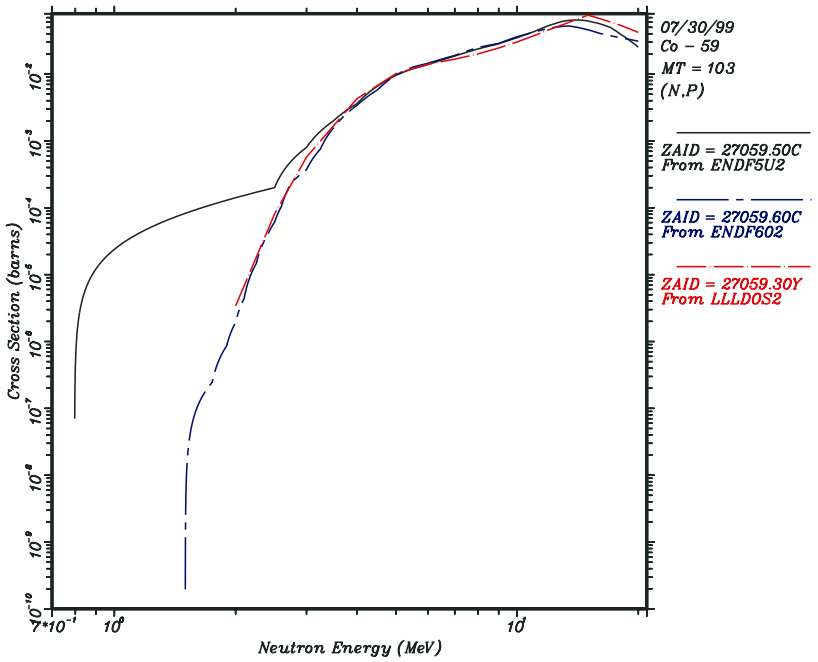

Cross Section (barns)
Neutron Energy (MeV)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
07/30/99
Ti – 46
MT = 103
(N,P)
ZAID = 22046.26Y
From 532DOS2
ZAID = 22046.30Y
From LLLDOS2

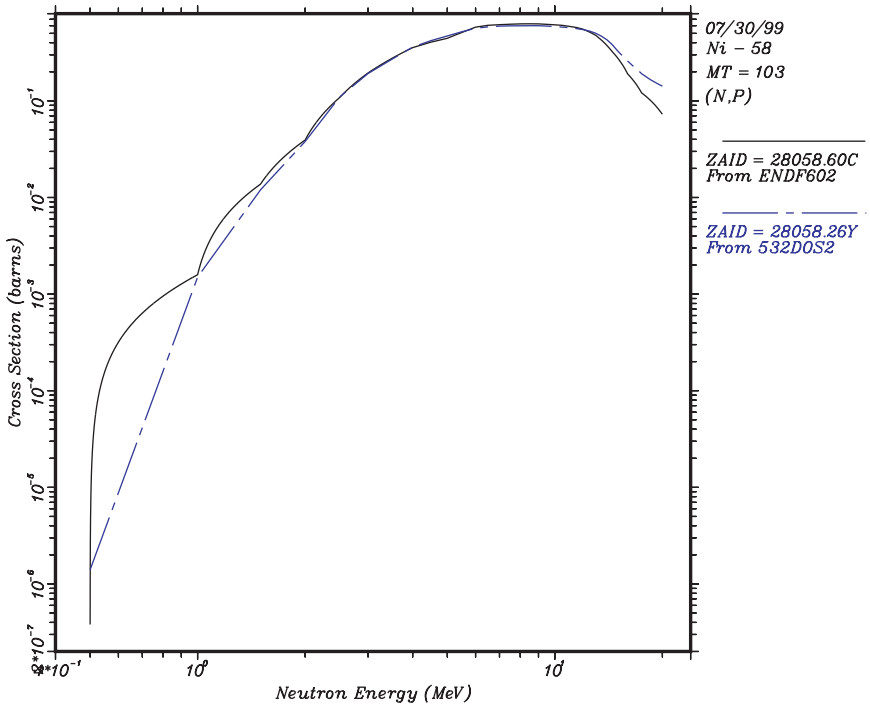

07/30/99
Ti - 47
MT = 103
(N,P)
ZAID = 22047.26Y
From 532DOS2
ZAID = 22047.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)


07/30/99
Ti - 48
MT = 103
(N,P)
ZAID = 22048.26Y
From 532DOS2
ZAID = 22048.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)


07/30/99
Fe – 54
MT = 103
(N,P)
ZAID = 26054.60C
From ENDF602
ZAID = 26054.26Y
From 532DOS2
ZAID = 26054.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

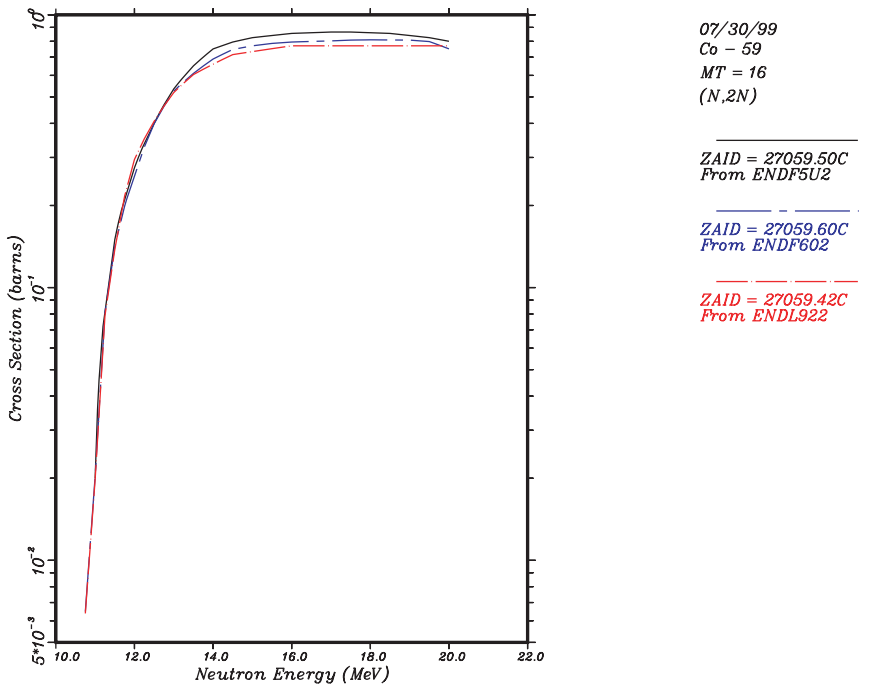

07/30/99
Fe – 56
MT = 103
(N,P)
ZAID = 26056.60C
From ENDF602
ZAID = 26056.26Y
From 532DOS2
ZAID = 26056.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

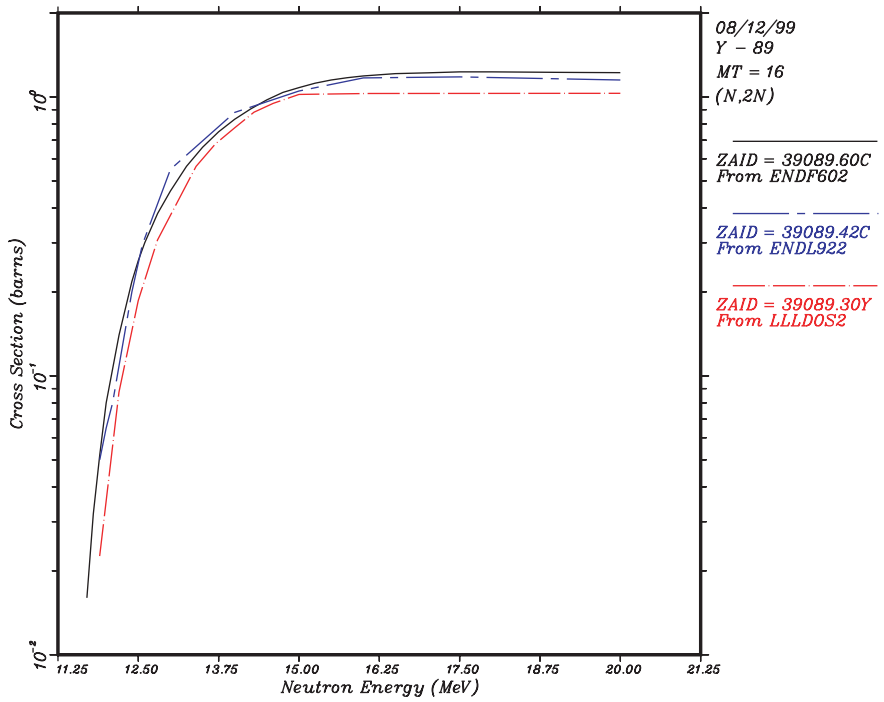

07/30/99
Co - 59
MT = 103
(N,P)
ZAID = 27059.50C
From ENDF5U2
ZAID = 27059.60C
From ENDF602
ZAID = 27059.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

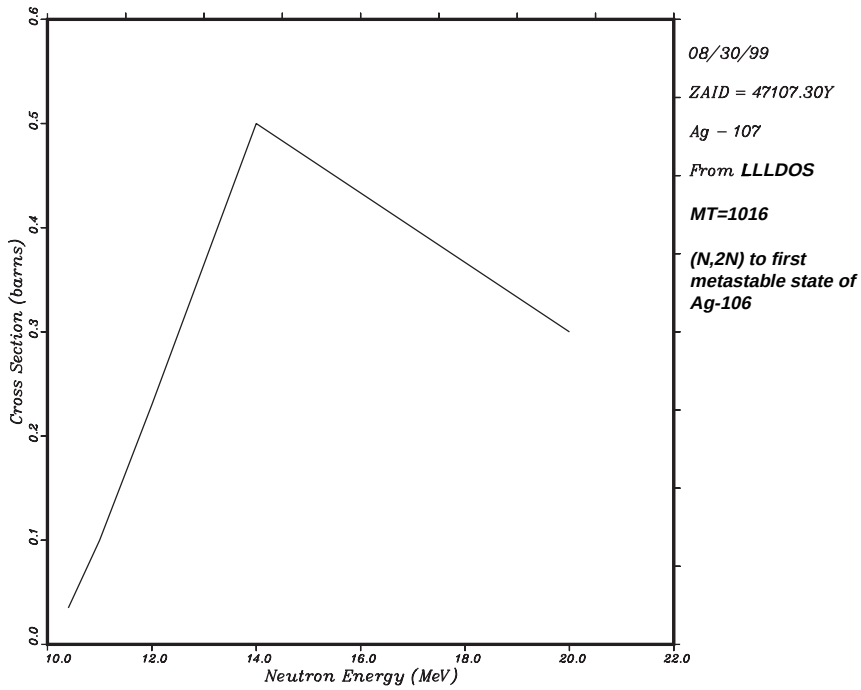

07/30/99
Ni - 58
MT = 103
(N,P)
ZAID = 28058.60C
From ENDF602
ZAID = 28058.26Y
From 532DOS2
Cross Section (barns)
Neutron Energy (MeV)

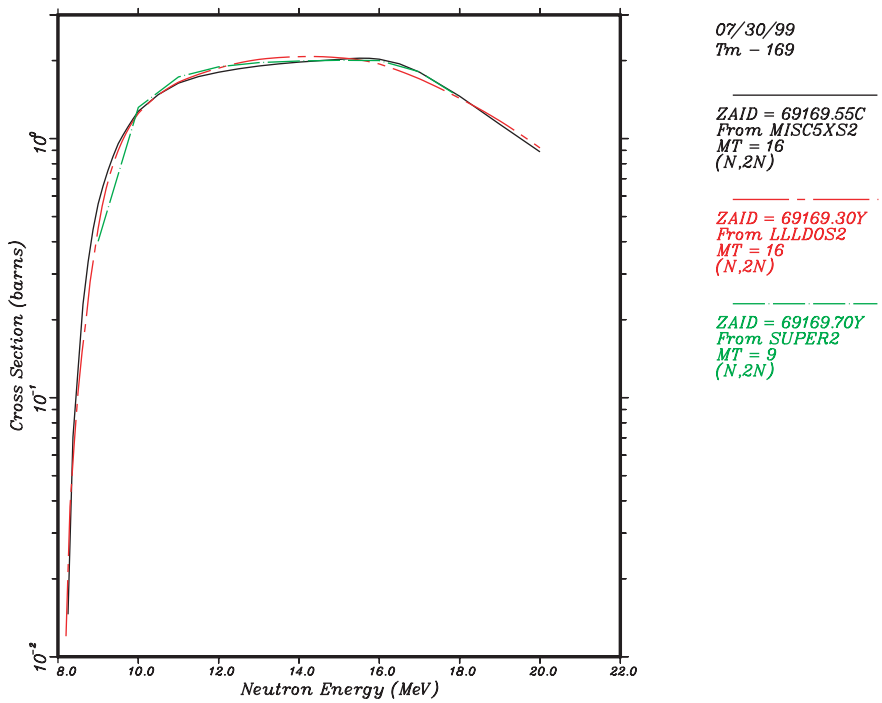
Appendix D

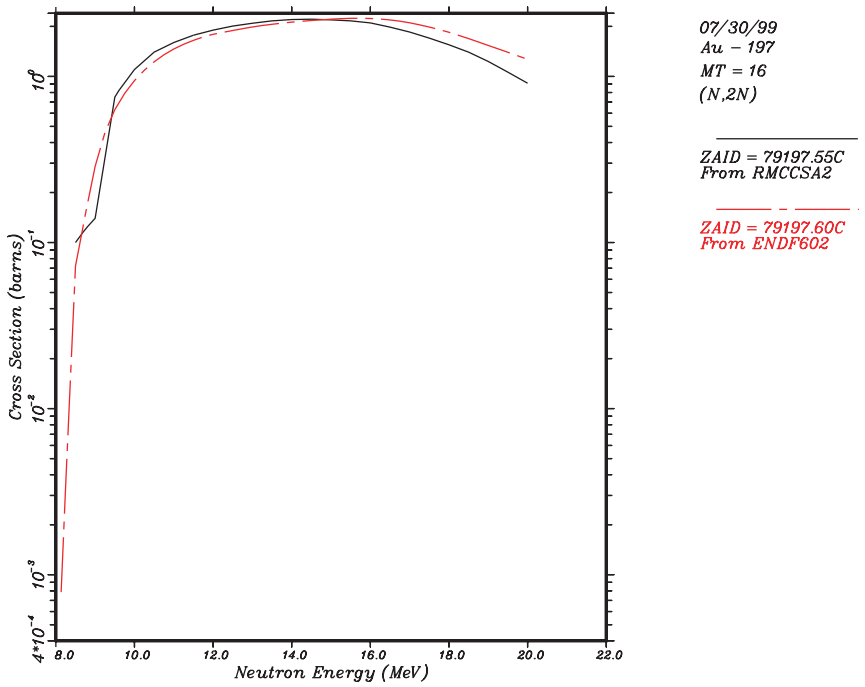
Plots of the (n,2n) Cross Sections

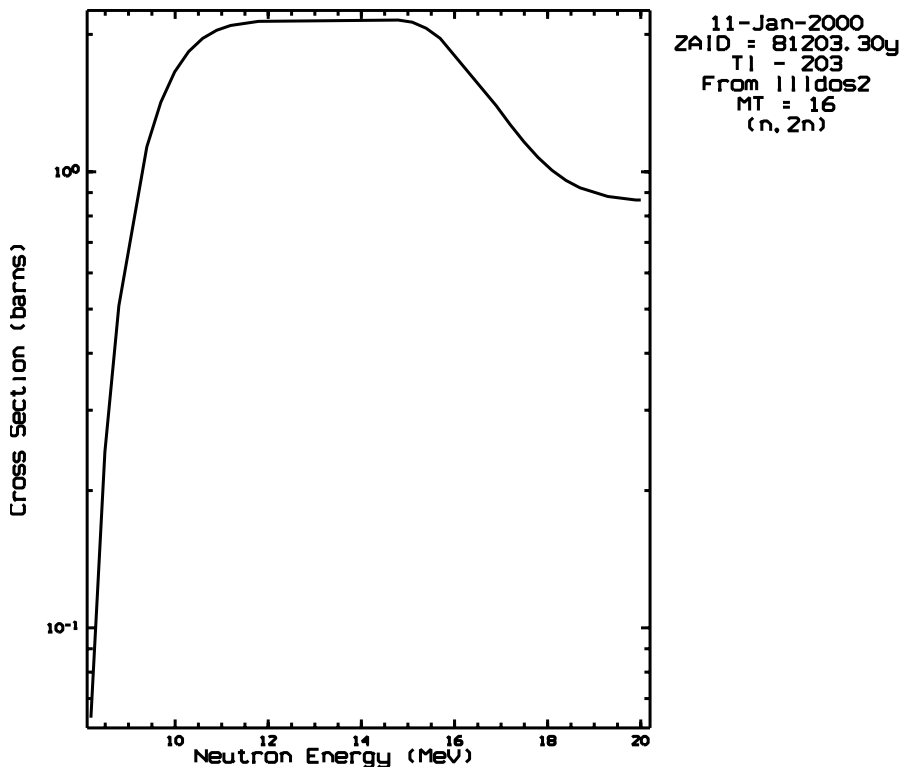

07/30/99
Co - 59
MT = 16
(N,2N)
ZAID = 27059.50C
From ENDF5U2
ZAID = 27059.60C
From ENDF602
ZAID = 27059.42C
From ENDL922
Cross Section (barns)
Neutron Energy (MeV)

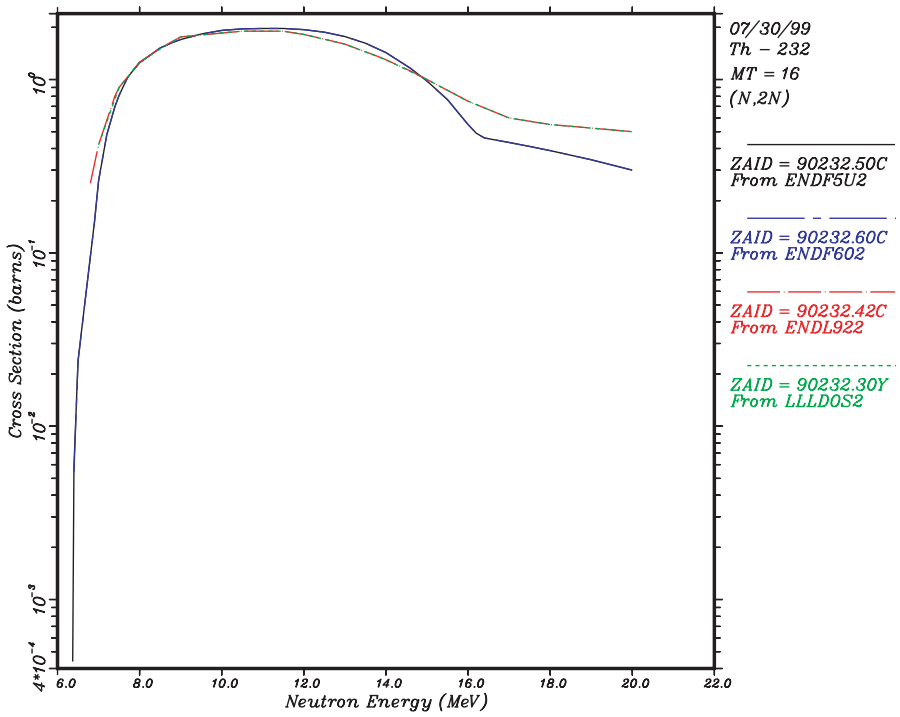

08/12/99
Y - 89
MT = 16
(N,2N)
ZAID = 39089.60C
From ENDF602
ZAID = 39089.42C
From ENDL922
ZAID = 39089.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

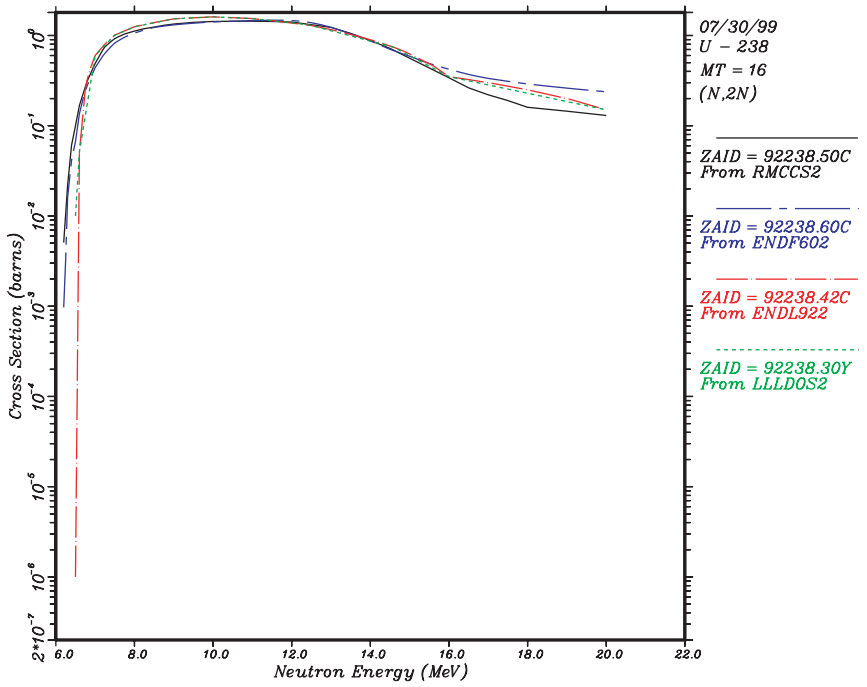

08/30/99
ZAID = 47107.30Y
Ag – 107
From LLLDOS
MT=1016
(N,2N) to first metastable state of Ag-106
Cross Section (barns)
Neutron Energy (MeV)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
10.0
12.0
14.0
16.0
18.0
20.0
22.0


07/30/99
Tm – 169
ZAID = 69169.55C
From MISC5XS2
MT = 16
(N,2N)
ZAID = 69169.30Y
From LLLDOS2
MT = 16
(N,2N)
ZAID = 69169.70Y
From SUPER2
MT = 9
(N,2N)
Cross Section (barns)
Neutron Energy (MeV)
10^{0}
10^{-1}
10^{-2}
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0


07/30/99
Au - 197
MT = 16
(N,2N)
ZAID = 79197.55C
From RMCCSA2
ZAID = 79197.60C
From ENDF602
Cross Section (barns)
Neutron Energy (MeV)

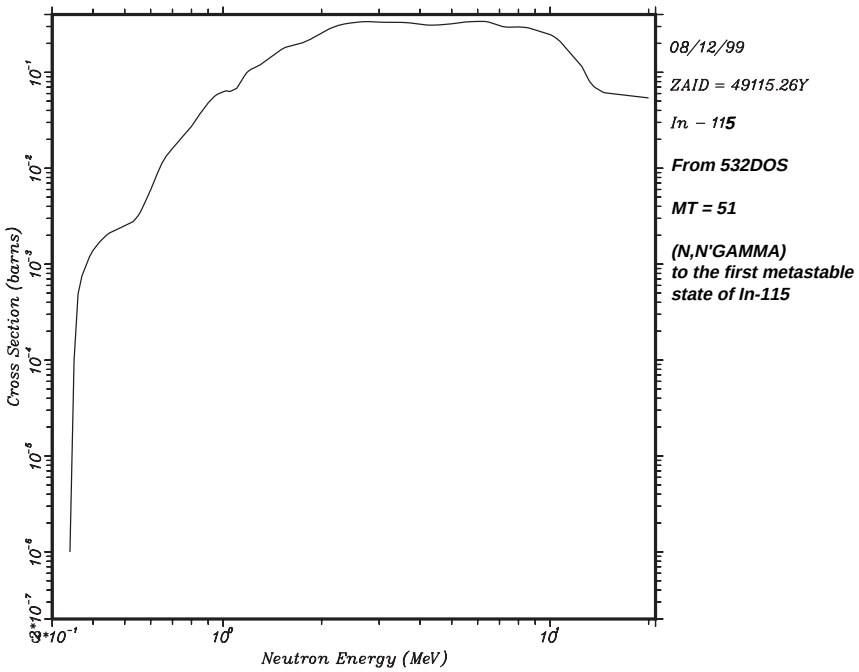

11-Jan-2000
ZAID = 81203.30y
Tl - 203
From lllldos2
MT = 16
(n,2n)
Cross Section (barns)
Neutron Energy (MeV)

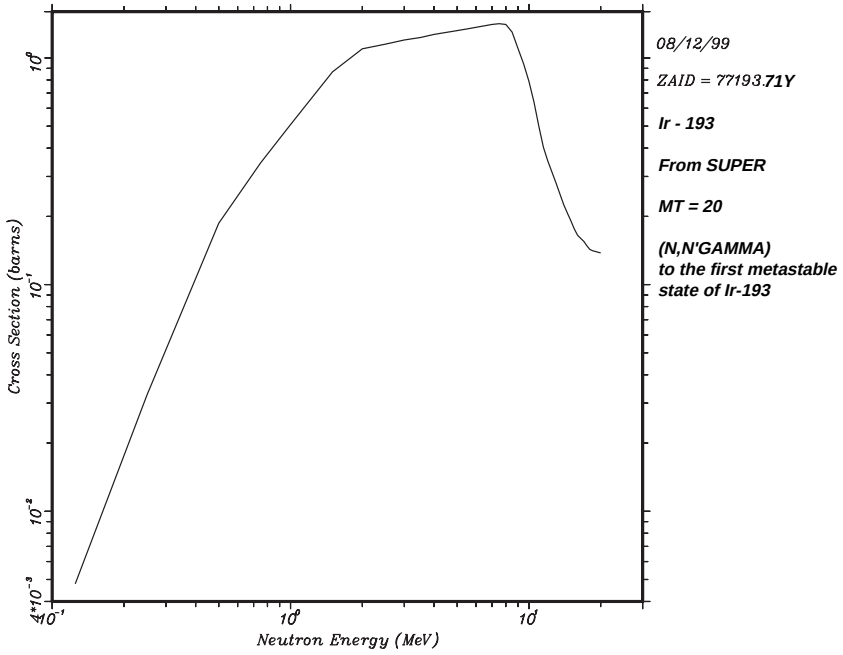

07/30/99
Th − 232
MT = 16
(N,2N)
ZAID = 90232.50C
From ENDF5U2
ZAID = 90232.60C
From ENDF602
ZAID = 90232.42C
From ENDL922
ZAID = 90232.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)


07/30/99
U − 238
MT = 16
(N,2N)
ZAID = 92238.50C
From RMCCS2
ZAID = 92238.60C
From ENDF602
ZAID = 92238.42C
From ENDL922
ZAID = 92238.30Y
From LLLDOS2
Cross Section (barns)
Neutron Energy (MeV)

Appendix E

Plots of Other Cross Sections


08/12/99
ZAID = 49115.26Y
In - 115
From 532DOS
MT = 51
(N,N'GAMMA)
to the first metastable
state of In-115
Cross Section (barns)
Neutron Energy (MeV)


08/12/99
ZAID = 77193.71Y
Ir - 193
From SUPER
MT = 20
(N,N'GAMMA)
to the first metastable
state of Ir-193
Cross Section (barns)
Neutron Energy (MeV)

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