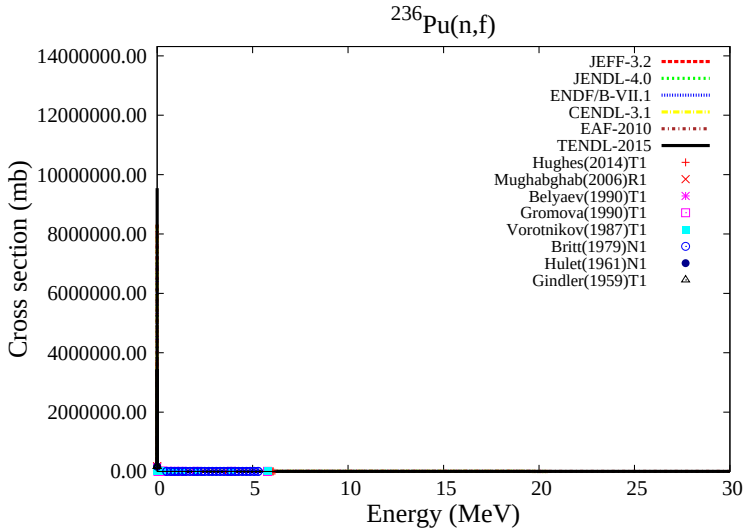
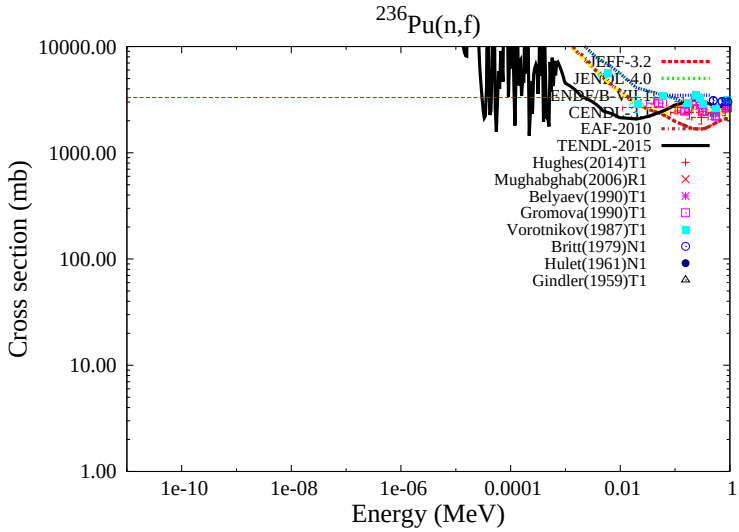
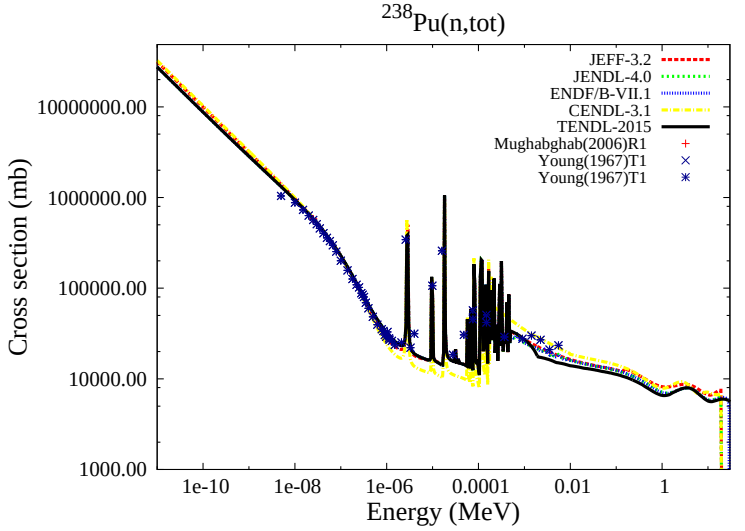
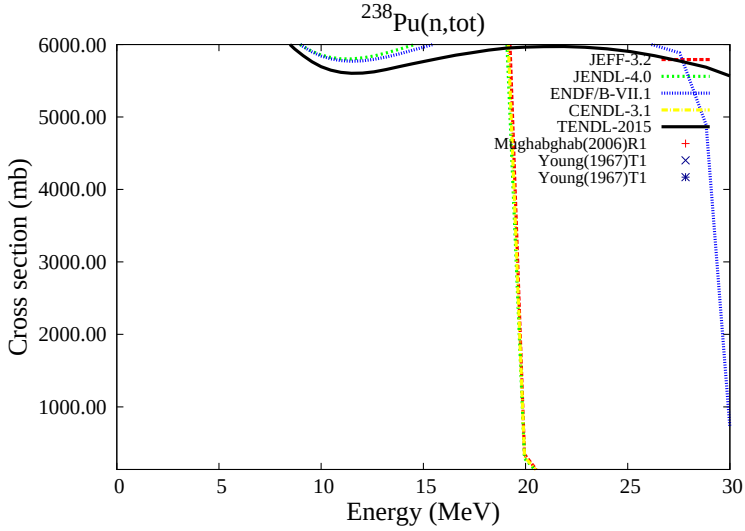
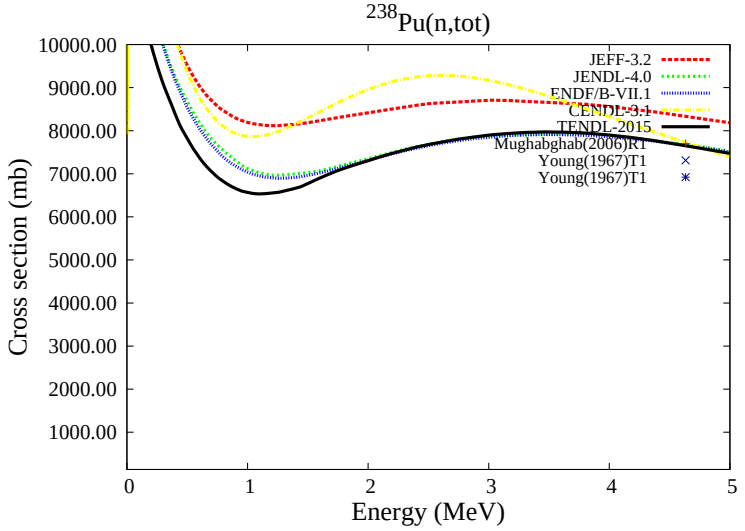
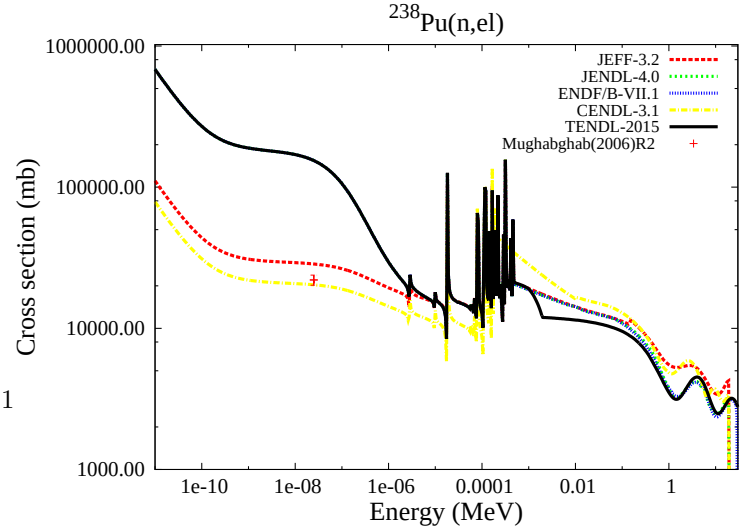

236Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Hughes(2014)T1
Mughabghab(2006)R1
Belyaev(1990)T1
Gromova(1990)T1
Vorotnikov(1987)T1
Britt(1979)N1
Hulet(1961)N1
Gindler(1959)T1

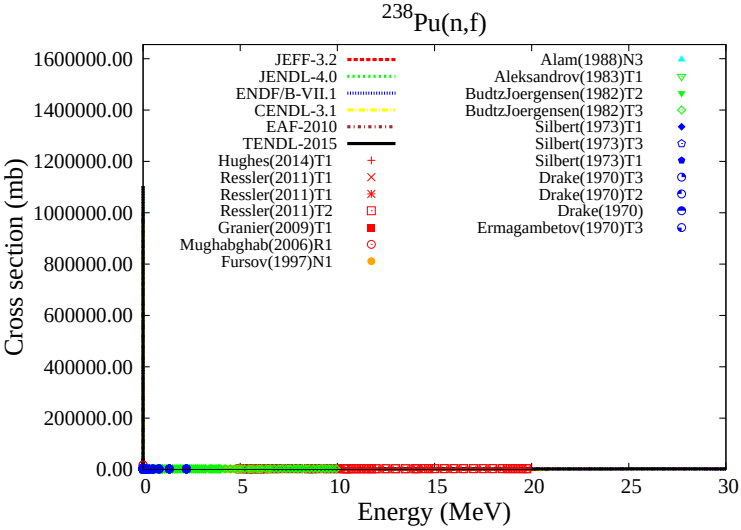

236Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Hughes(2014)T1
Mughabghab(2006)R1
Belyaev(1990)T1
Gromova(1990)T1
Vorotnikov(1987)T1
Britt(1979)N1
Hulet(1961)N1
Gindler(1959)T1

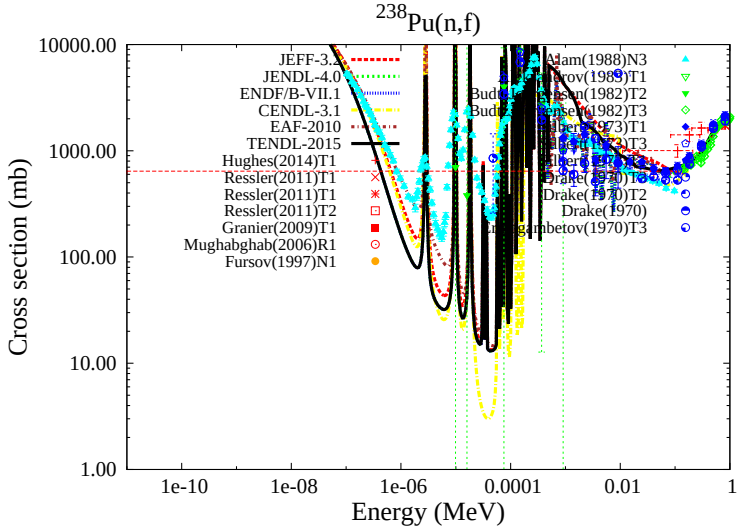

238Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Young(1967)T1
Young(1967)T1

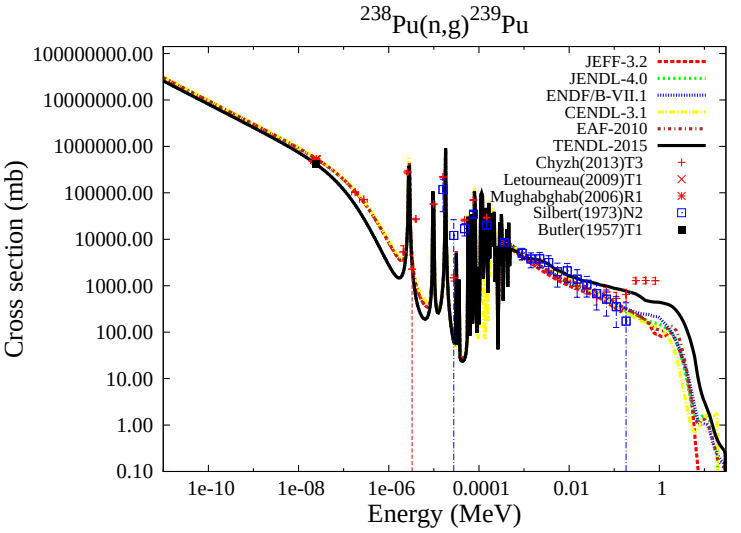

238Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Young(1967)T1
Young(1967)T1

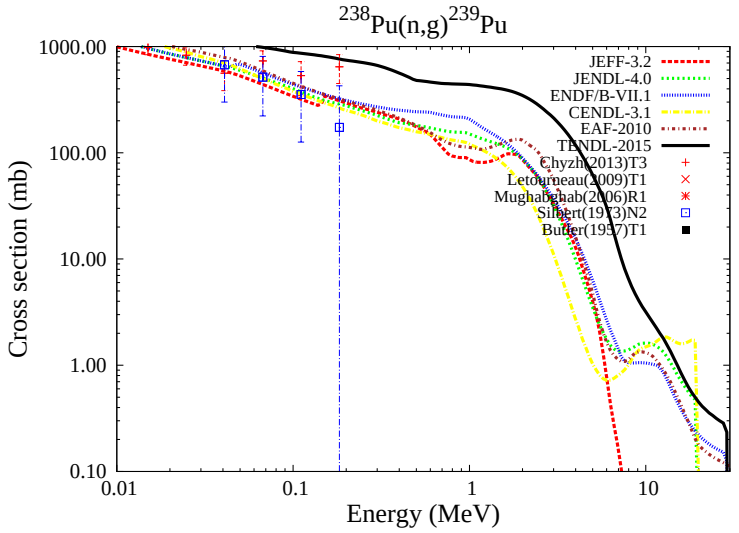

238Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Young(1967)T1
Young(1967)T1

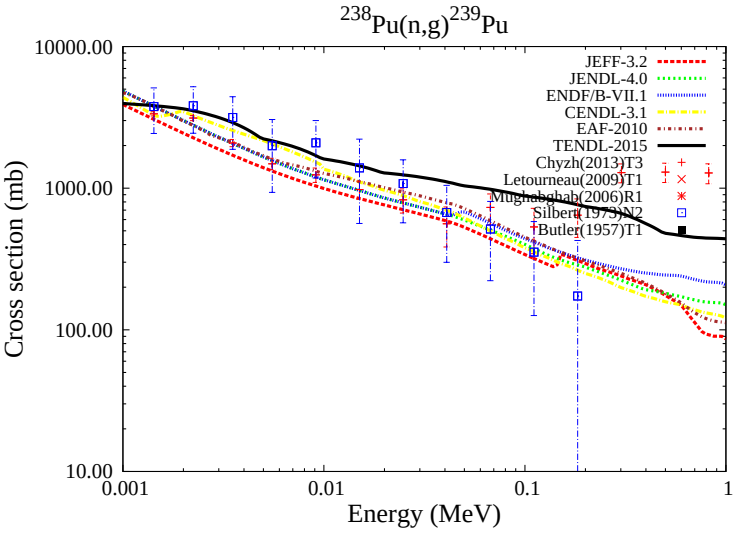

238Pu(n,el)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R2

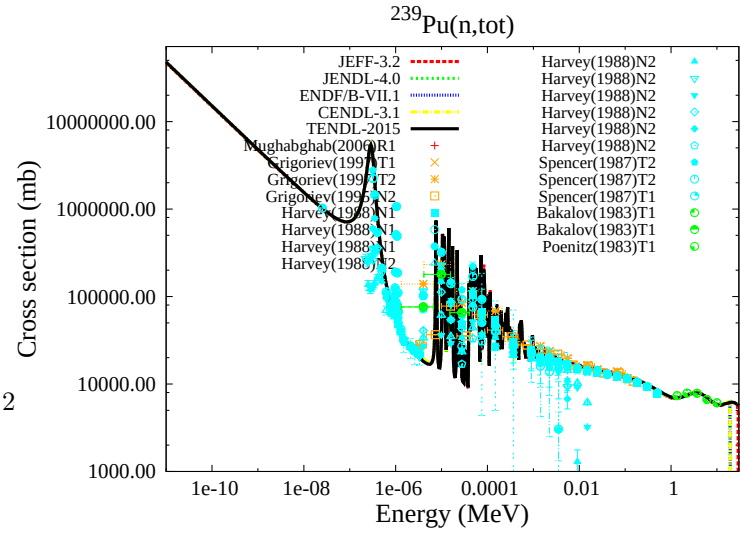

238Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Hughes(2014)T1
Ressler(2011)T1
Ressler(2011)T1
Ressler(2011)T2
Granier(2009)T1
Mughabghab(2006)R1
Fursov(1997)N1
Alam(1988)N3
Aleksandrov(1983)T1
BudtzJoergensen(1982)T2
BudtzJoergensen(1982)T3
Silbert(1973)T1
Silbert(1973)T3
Silbert(1973)T1
Drake(1970)T3
Drake(1970)T2
Drake(1970)
Ermagambetov(1970)T3

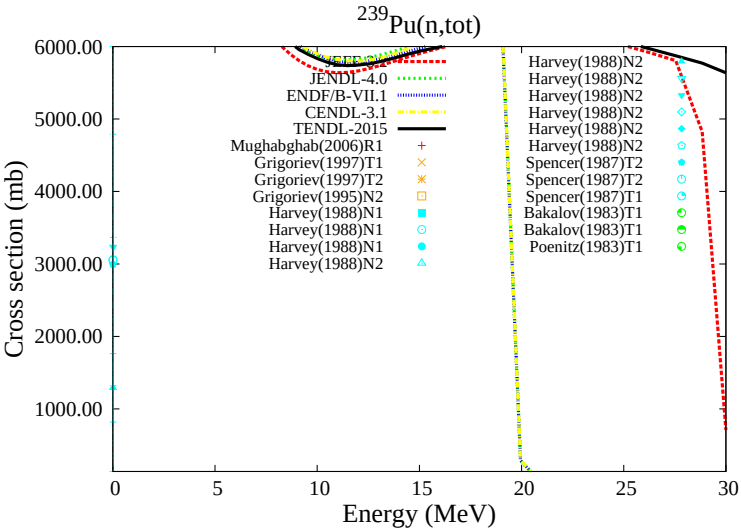

238Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Hughes(2014)T1
Ressler(2011)T1
Ressler(2011)T1
Ressler(2011)T2
Granier(2009)T1
Mughabghab(2006)R1
Fursov(1997)N1
Alam(1988)N3
Drake(1970)
Drake(1970)T2
Drake(1970)

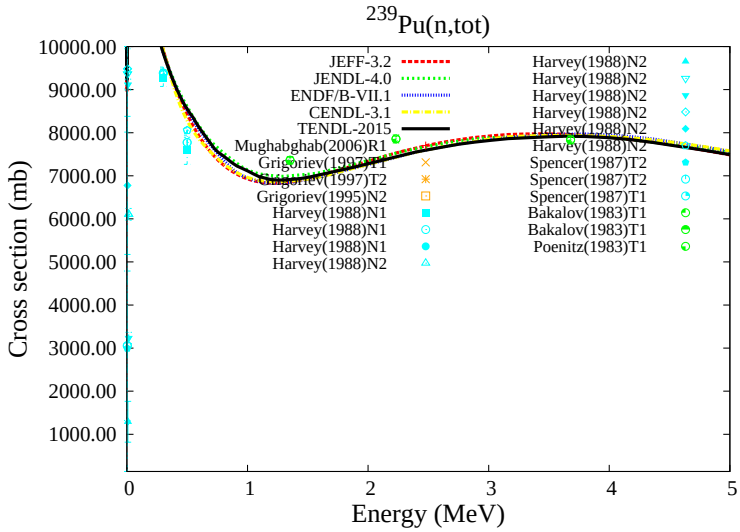

238Pu(n,g)239Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Chyzh(2013)T3
Letourneau(2009)T1
Mughabghab(2006)R1
Silbert(1973)N2
Butler(1957)T1

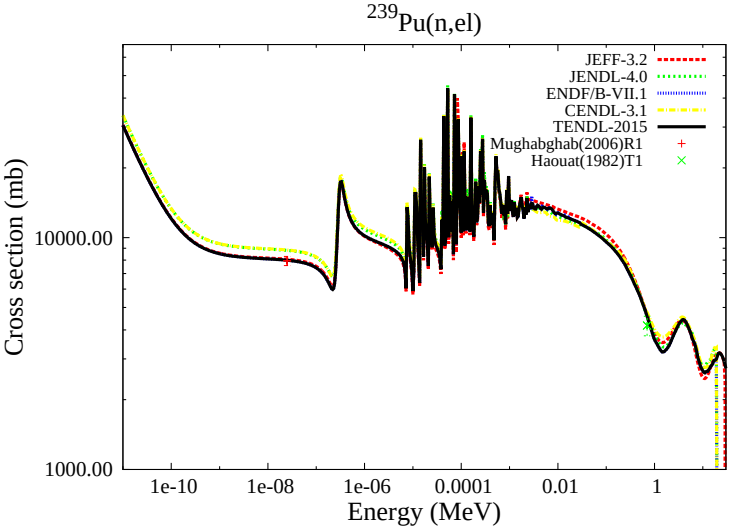

238Pu(n,g)239Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Chyzh(2013)T3
Letourneau(2009)T1
Mughabghab(2006)R1
Silbert(1973)N2
Butler(1957)T1

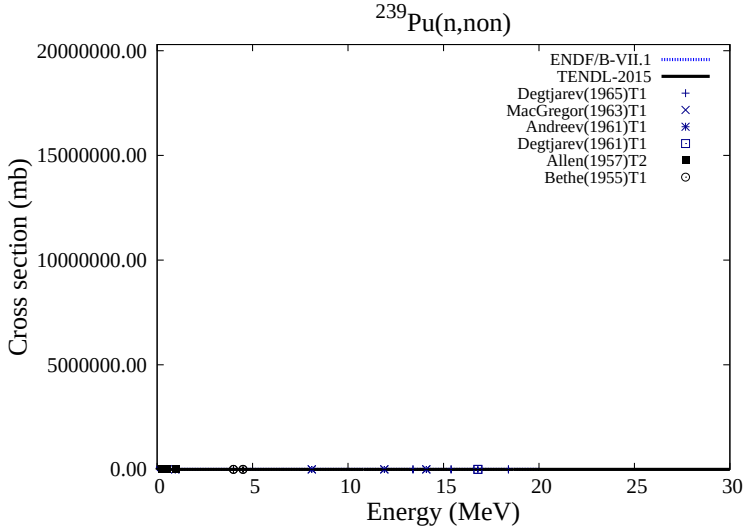

238Pu(n,g)239Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Chyzh(2013)T3
Letourneau(2009)T1
Mughabghab(2006)R1
Silbert(1973)N2
Butler(1957)T1

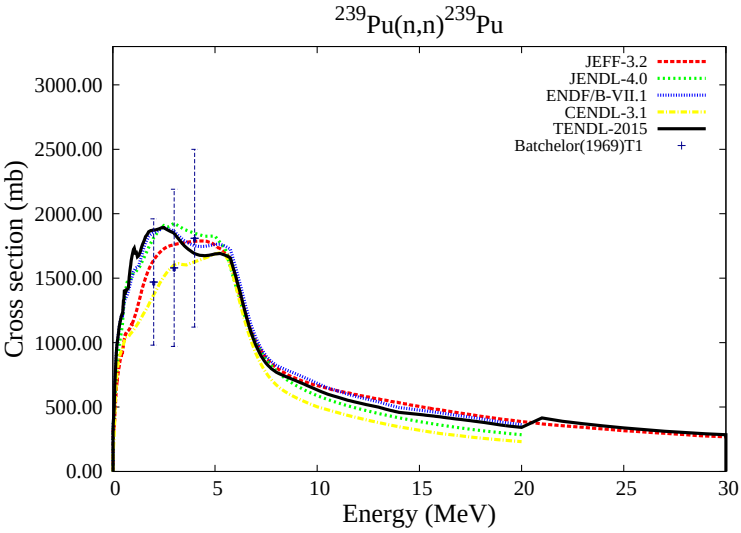

239Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Harvey(1988)N2
Spencer(1987)T2
Spencer(1987)T2
Spencer(1987)T1
Bakalov(1983)T1
Bakalov(1983)T1
Poenitz(1983)T1

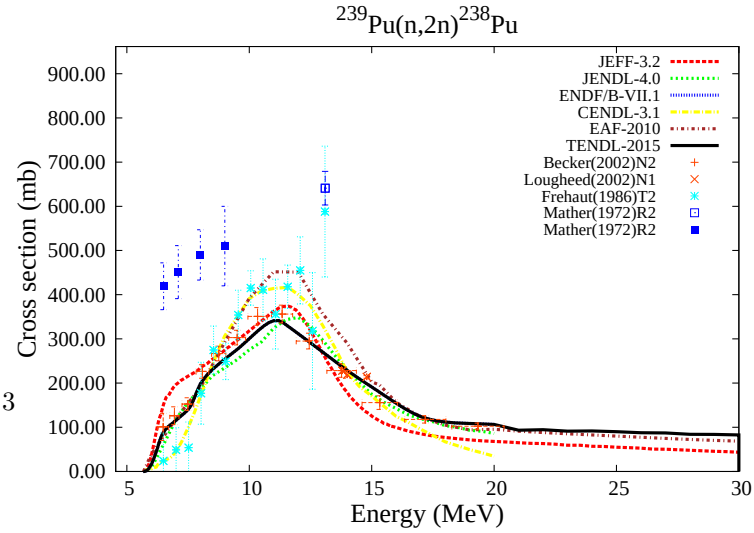

239Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Grigoriev(1997)T1
Grigoriev(1997)T2
Grigoriev(1995)N2
Harvey(1988)N1
Harvey(1988)N1
Harvey(1988)N1
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Spencer(1987)T2
Spencer(1987)T2
Spencer(1987)T1
Bakalov(1983)T1
Bakalov(1983)T1
Poenitz(1983)T1

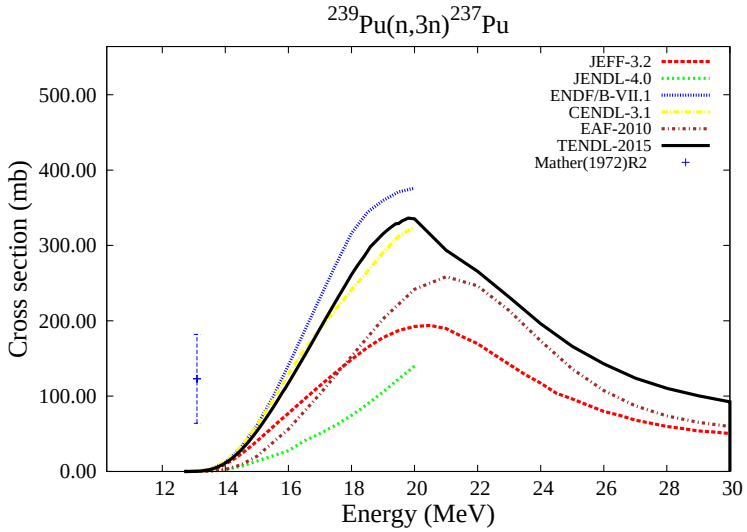

239Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Grigoriev(1997)T1
Grigoriev(1997)T2
Grigoriev(1995)N2
Harvey(1988)N1
Harvey(1988)N1
Harvey(1988)N1
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Harvey(1988)N2
Spencer(1987)T2
Spencer(1987)T2
Spencer(1987)T1
Bakalov(1983)T1
Bakalov(1983)T1
Poenitz(1983)T1

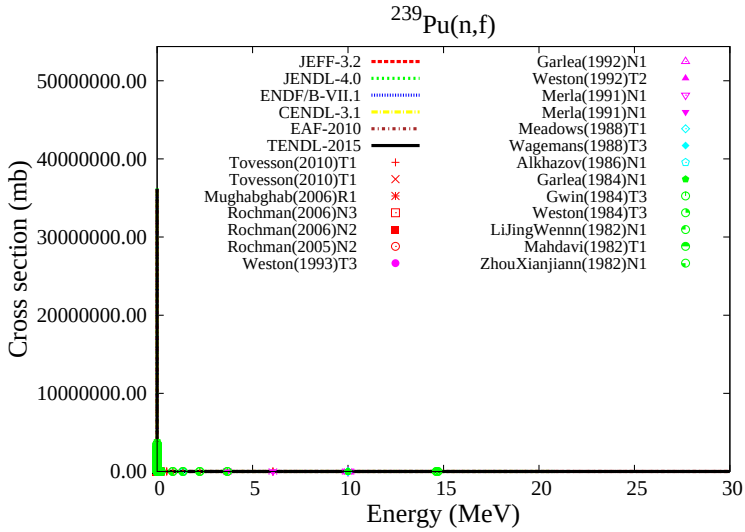

239Pu(n,el)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Haouat(1982)T1

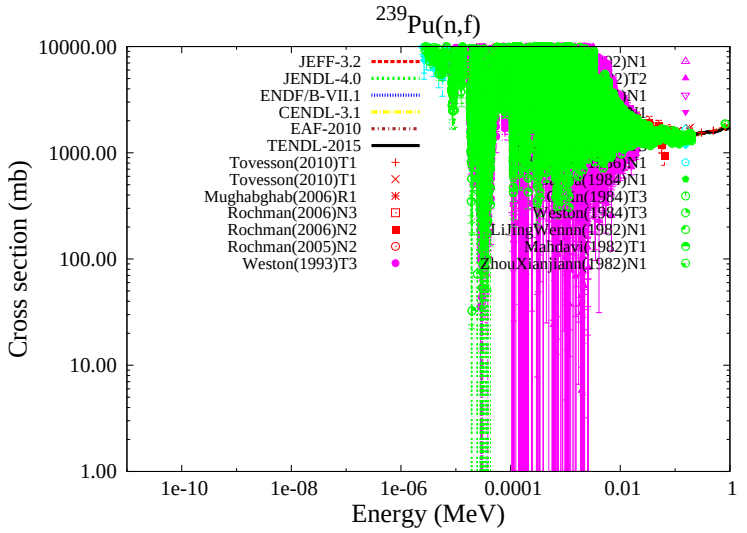

239Pu(n,non)
Cross section (mb)
Energy (MeV)
ENDF/B-VII.1
TENDL-2015
Degtjarev(1965)T1
MacGregor(1963)T1
Andreev(1961)T1
Degtjarev(1961)T1
Allen(1957)T2
Bethe(1955)T1

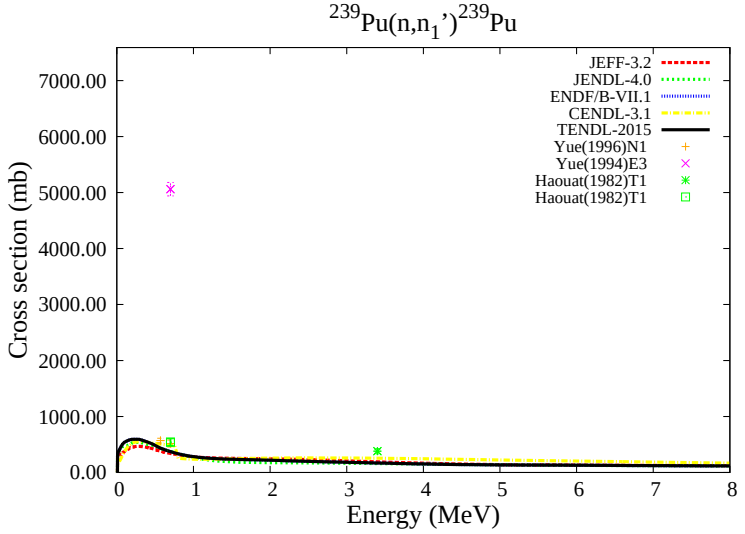

239Pu(n,n)239Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Batchelor(1969)T1

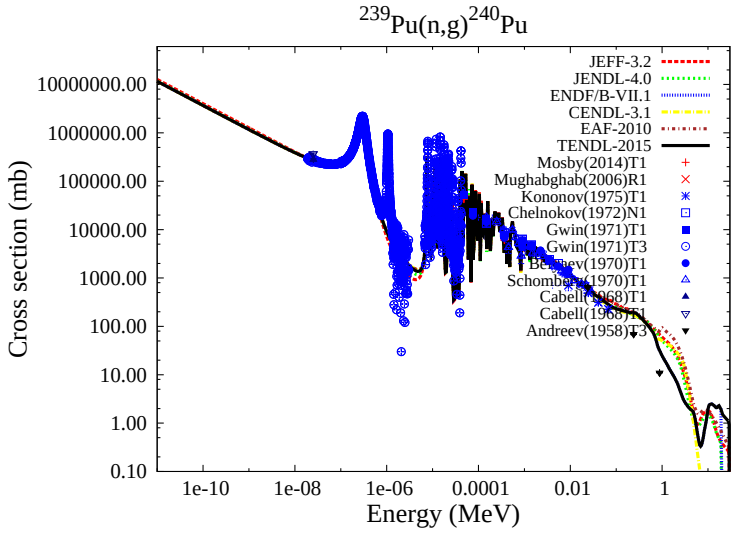

239Pu(n,2n)238Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Becker(2002)N2
Lougheed(2002)N1
Frehaut(1986)T2
Mather(1972)R2
Mather(1972)R2

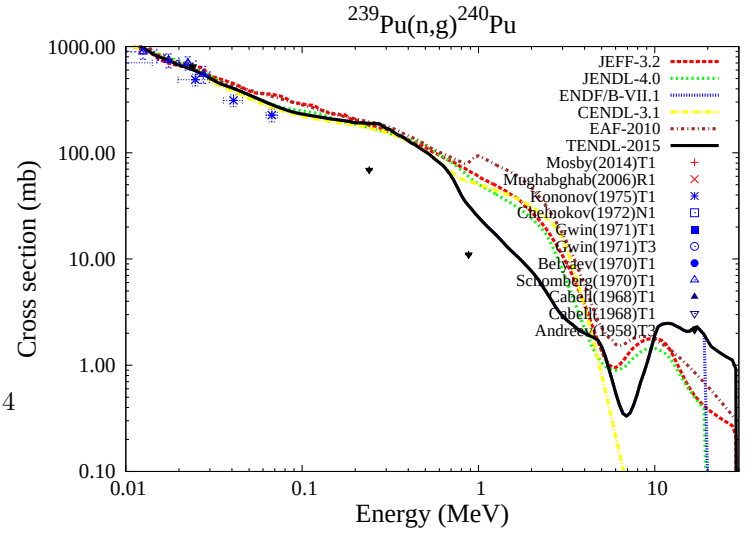

$^{239}$Pu(n,3n)$^{237}$Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mather(1972)R2
Cross section (mb)
Energy (MeV)

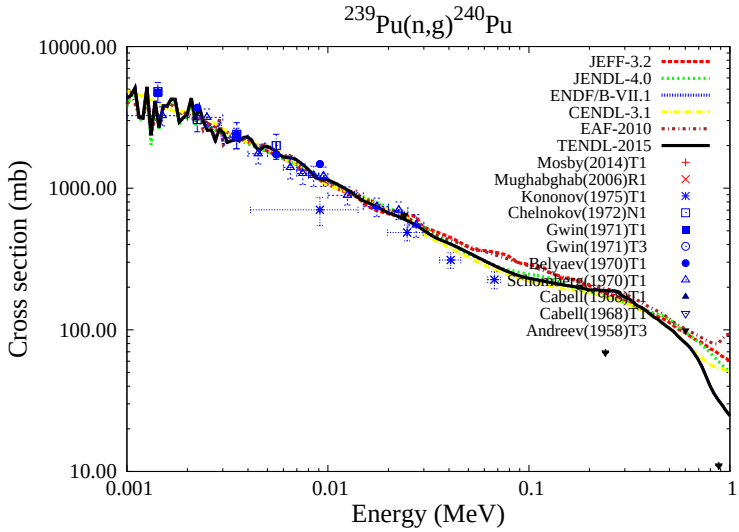

$^{239}$Pu(n,f)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2010)T1
Tovesson(2010)T1
Mughabghab(2006)R1
Rochman(2006)N3
Rochman(2006)N2
Rochman(2005)N2
Weston(1993)T3
Garlea(1992)N1
Weston(1992)T2
Merla(1991)N1
Merla(1991)N1
Meadows(1988)T1
Wagemans(1988)T3
Alkhazov(1986)N1
Garlea(1984)N1
Gwin(1984)T3
Weston(1984)T3
LiJingWennn(1982)N1
Mahdavi(1982)T1
ZhouXianjiann(1982)N1
Cross section (mb)
Energy (MeV)

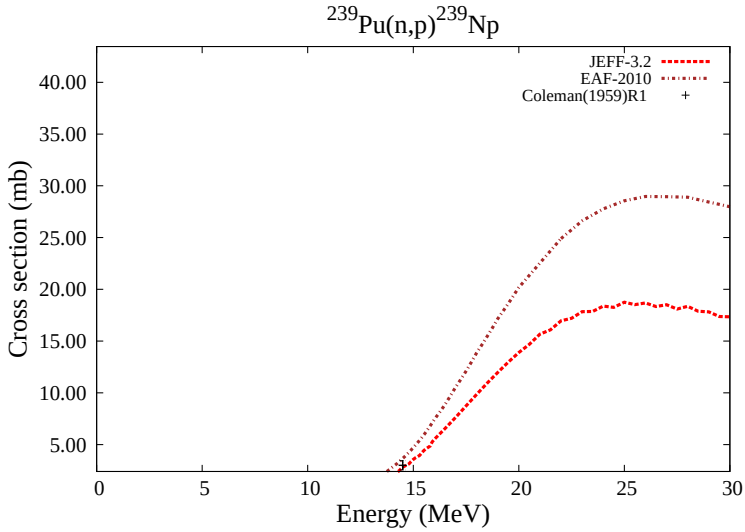

$^{239}$Pu(n,f)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2010)T1
Tovesson(2010)T1
Mughabghab(2006)R1
Rochman(2006)N3
Rochman(2006)N2
Rochman(2005)N2
Weston(1993)T3
Cross section (mb)
Energy (MeV)

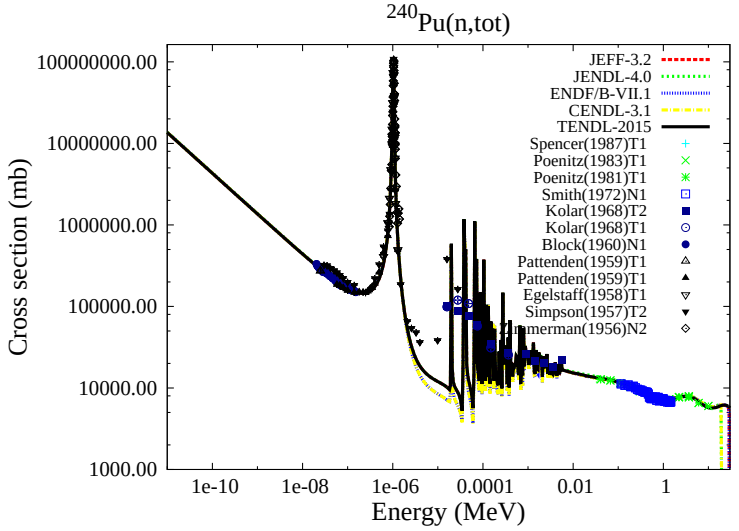

$^{239}$Pu(n,n$_1$')$^{239}$Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Yue(1996)N1
Yue(1994)E3
Haouat(1982)T1
Haouat(1982)T1
Cross section (mb)
Energy (MeV)

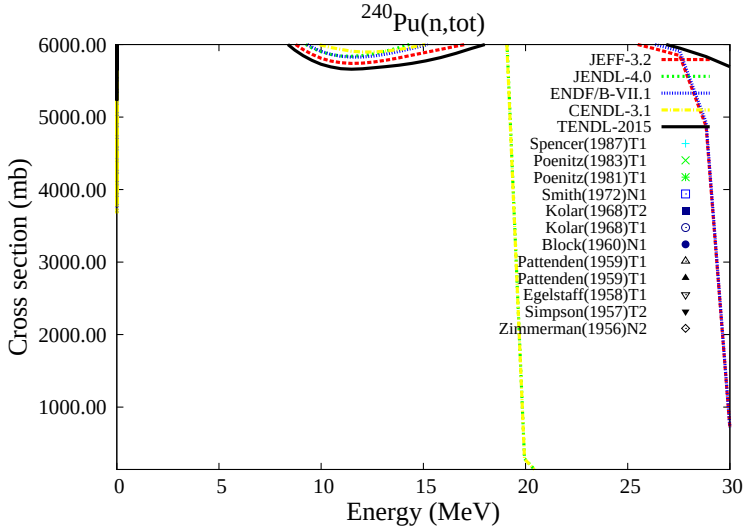

$^{239}$Pu(n,g)$^{240}$Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mosby(2014)T1
Mughabghab(2006)R1
Kononov(1975)T1
Chelnokov(1972)N1
Gwin(1971)T1
Gwin(1971)T3
Schomberg(1970)T1
Cabell(1968)T1
Cabell(1968)T1
Andreev(1958)T3
Cross section (mb)
Energy (MeV)

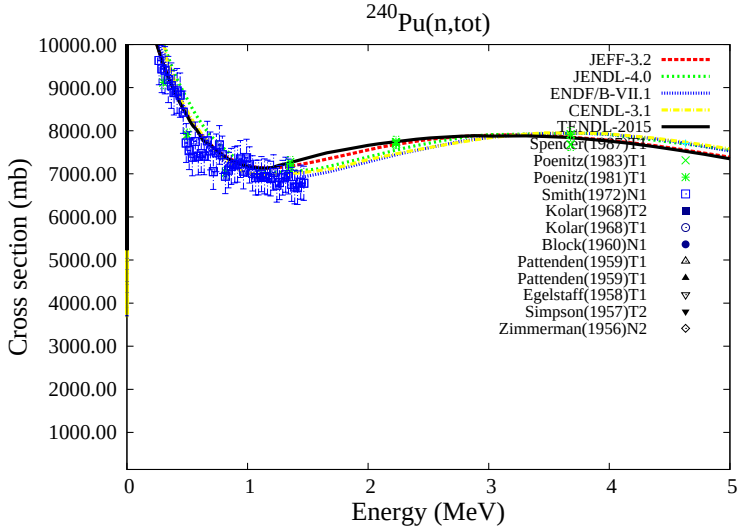

$^{239}$Pu(n,g)$^{240}$Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mosby(2014)T1
Mughabghab(2006)R1
Kononov(1975)T1
Chelnokov(1972)N1
Gwin(1971)T1
Gwin(1971)T3
Schomberg(1970)T1
Cabell(1968)T1
Cabell(1968)T1
Andreev(1958)T3
Cross section (mb)
Energy (MeV)

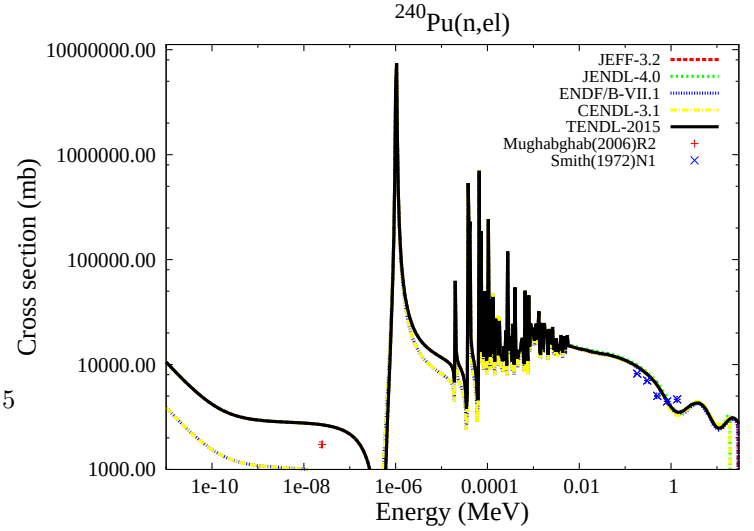

239Pu(n,g)240Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mosby(2014)T1
Mughabghab(2006)R1
Kononov(1975)T1
Chelnokov(1972)N1
Gwin(1971)T1
Gwin(1971)T3
Belyaev(1970)T1
Schollmeier(1970)T1
Cabell(1968)T1
Cabell(1968)T1
Andreev(1958)T3


239Pu(n,p)239Np
Cross section (mb)
Energy (MeV)
JEFF-3.2
EAF-2010
Coleman(1959)R1


240Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Spencer(1987)T1
Poenitz(1983)T1
Poenitz(1981)T1
Smith(1972)N1
Kolar(1968)T2
Kolar(1968)T1
Block(1960)N1
Pattenden(1959)T1
Pattenden(1959)T1
Egelstaff(1958)T1
Simpson(1957)T2
Zimmerman(1956)N2


240Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Spencer(1987)T1
Poenitz(1983)T1
Poenitz(1981)T1
Smith(1972)N1
Kolar(1968)T2
Kolar(1968)T1
Block(1960)N1
Pattenden(1959)T1
Pattenden(1959)T1
Egelstaff(1958)T1
Simpson(1957)T2
Zimmerman(1956)N2


240Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Spencer(1987)T1
Poenitz(1983)T1
Poenitz(1981)T1
Smith(1972)N1
Kolar(1968)T2
Kolar(1968)T1
Block(1960)N1
Pattenden(1959)T1
Pattenden(1959)T1
Egelstaff(1958)T1
Simpson(1957)T2
Zimmerman(1956)N2


240Pu(n,el)
Cross section (mb)
Energy (MeV)
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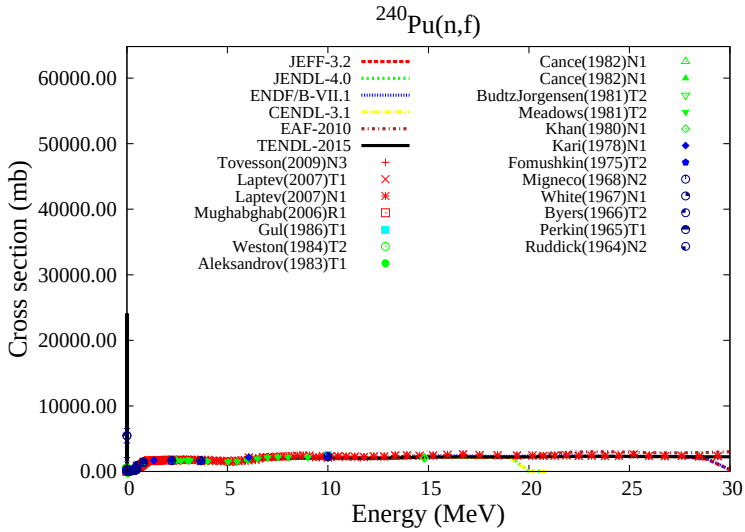
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R2
Smith(1972)N1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Cross section (mb)
Energy (MeV)
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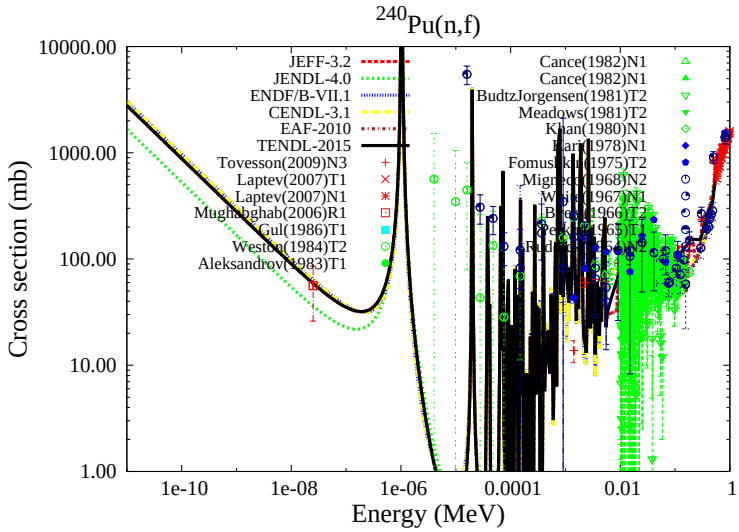
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2009)N3
Laptev(2007)T1
Laptev(2007)N1
Mughabghab(2006)R1
Gul(1986)T1
Weston(1984)T2
Aleksandrov(1983)T1
Cance(1982)N1
Cance(1982)N1
BudtzJorgensen(1981)T2
Meadows(1981)T2
Khan(1980)N1
Kari(1978)N1
Fomushkin(1975)T2
Migneco(1968)N2
White(1967)N1
Byers(1966)T2
Perkin(1965)T1
Ruddick(1964)N2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Cross section (mb)
Energy (MeV)
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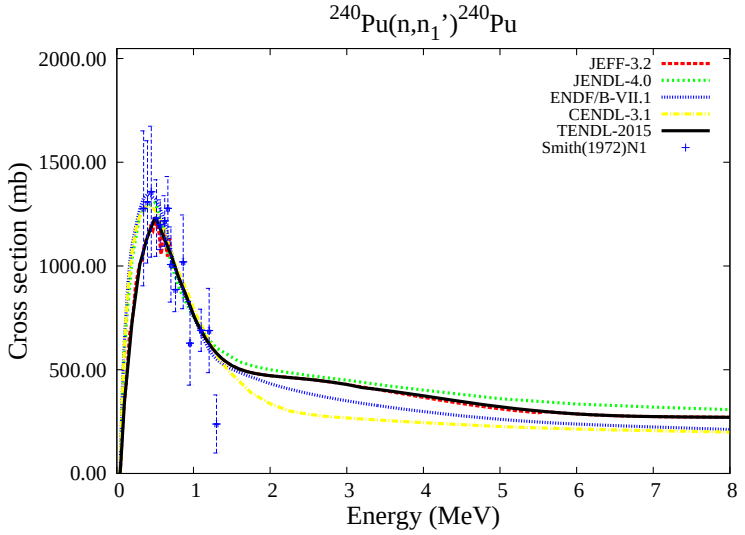
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2009)N3
Laptev(2007)T1
Laptev(2007)N1
Mughabghab(2006)R1
Gul(1986)T1
Weston(1984)T2
Aleksandrov(1983)T1
Cance(1982)N1
Cance(1982)N1
BudtzJorgensen(1981)T2
Meadows(1981)T2
Khan(1980)N1


240Pu(n,n1')240Pu
Cross section (mb)
Energy (MeV)
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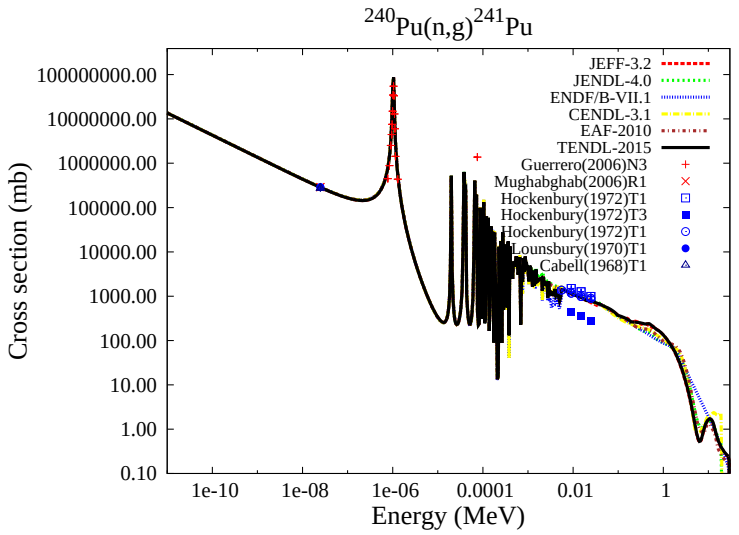
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Smith(1972)N1


240Pu(n,g)241Pu
Cross section (mb)
Energy (MeV)
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JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Guerrero(2006)N3
Mughabghab(2006)R1
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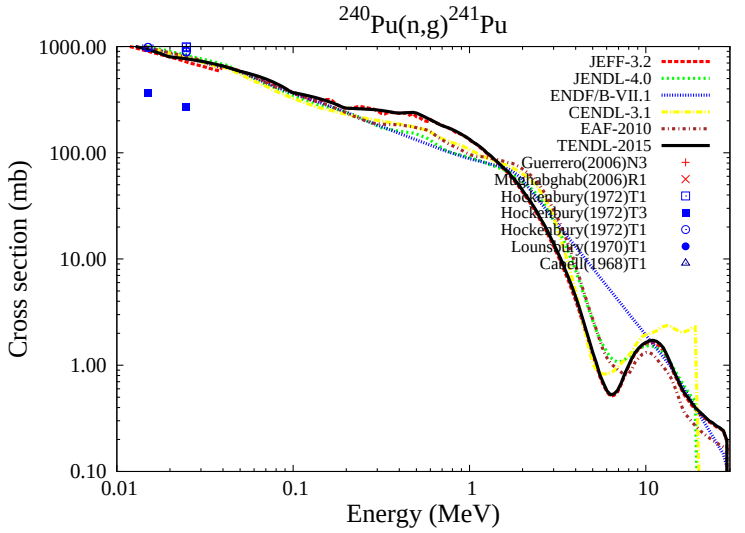
Hockenbury(1972)T3
Hockenbury(1972)T1
Lounsbury(1970)T1
Cabell(1968)T1


240Pu(n,g)241Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Guerrero(2006)N3
Mughabghab(2006)R1
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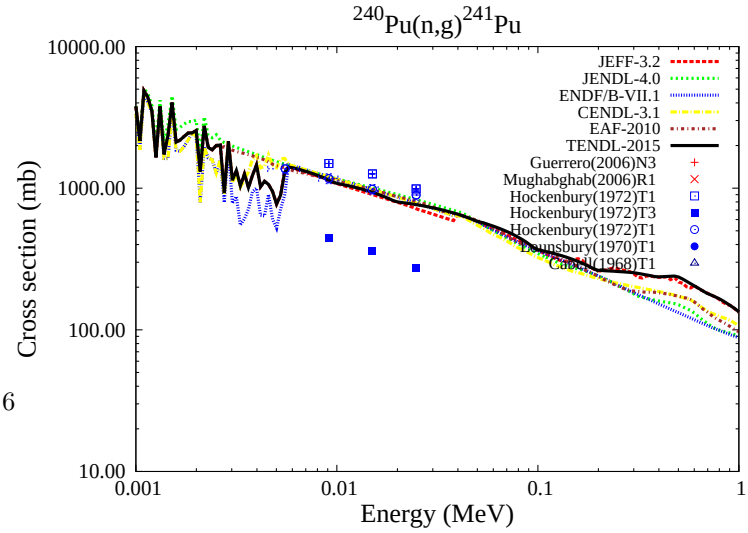
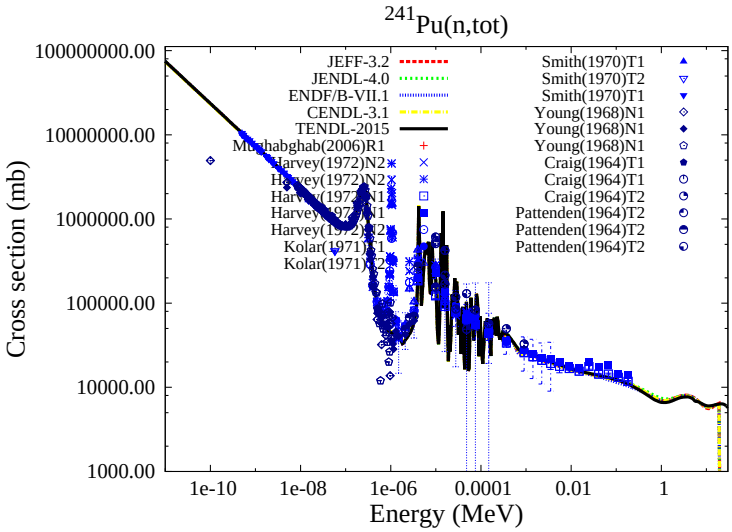
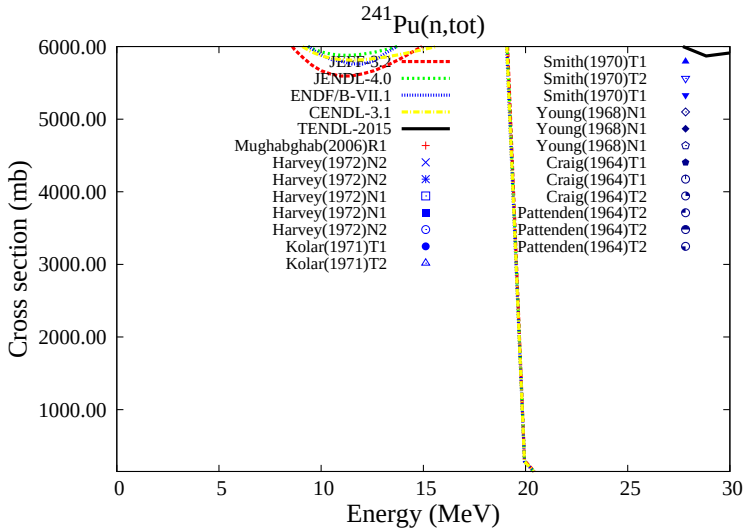
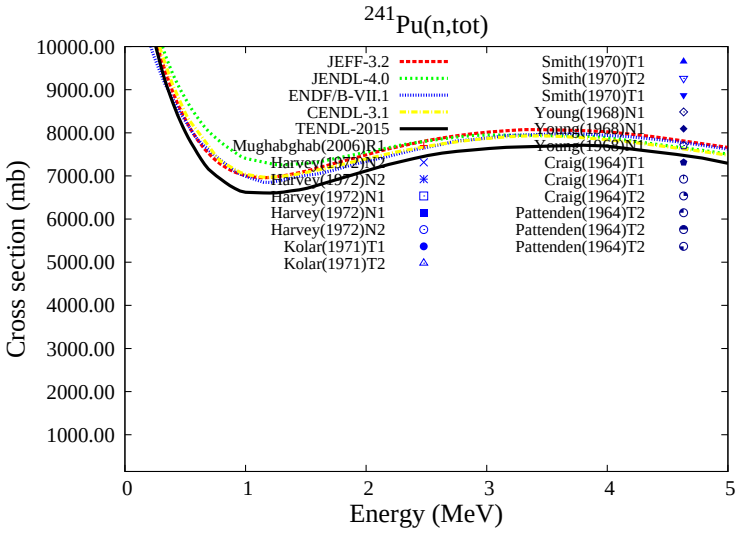
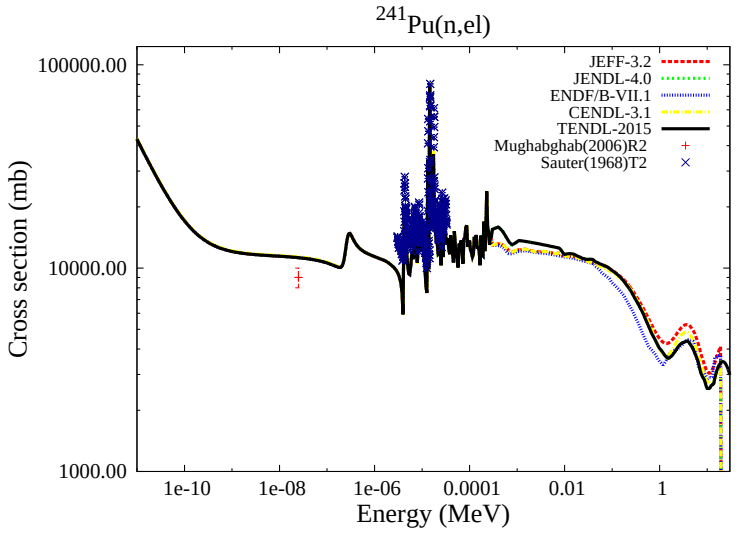
Hockenbury(1972)T3
Hockenbury(1972)T1
Lounsbury(1970)T1
Cabell(1968)T1


240Pu(n,g)241Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Guerrero(2006)N3
Mughabghab(2006)R1
Hockenbury(1972)T1
Hockenbury(1972)T3
Hockenbury(1972)T1
Lounsbury(1970)T1
Cabell(1968)T1


241Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Harvey(1972)N2
Harvey(1972)N2
Harvey(1972)N1
Harvey(1972)N1
Harvey(1972)N2
Kolar(1971)T1
Kolar(1971)T2
Smith(1970)T1
Smith(1970)T2
Smith(1970)T1
Young(1968)N1
Young(1968)N1
Young(1968)N1
Craig(1964)T1
Craig(1964)T1
Craig(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2


241Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Harvey(1972)N2
Harvey(1972)N2
Harvey(1972)N1
Harvey(1972)N1
Harvey(1972)N2
Kolar(1971)T1
Kolar(1971)T2
Smith(1970)T1
Smith(1970)T2
Smith(1970)T1
Young(1968)N1
Young(1968)N1
Young(1968)N1
Craig(1964)T1
Craig(1964)T1
Craig(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2


241Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Harvey(1972)N2
Harvey(1972)N2
Harvey(1972)N1
Harvey(1972)N1
Harvey(1972)N2
Kolar(1971)T1
Kolar(1971)T2
Smith(1970)T1
Smith(1970)T2
Smith(1970)T1
Young(1968)N1
Young(1968)N1
Young(1968)N1
Craig(1964)T1
Craig(1964)T1
Craig(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2
Pattenden(1964)T2


241Pu(n,el)
Cross section (mb)
Energy (MeV)
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CENDL-3.1
TENDL-2015
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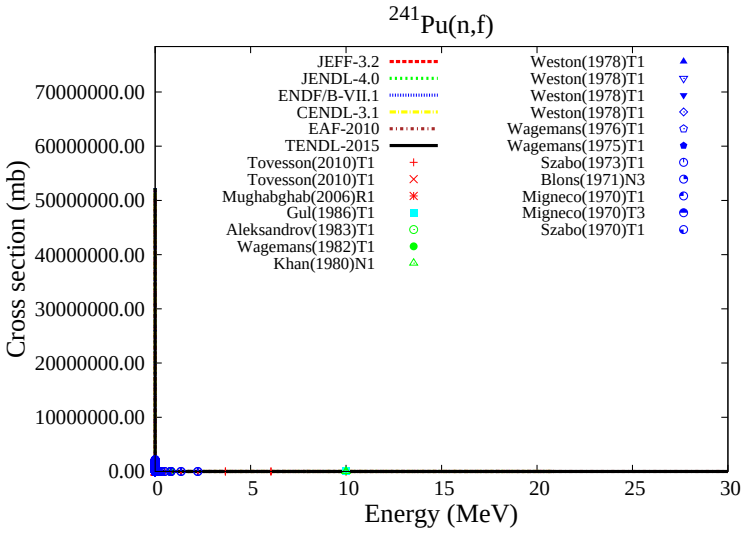
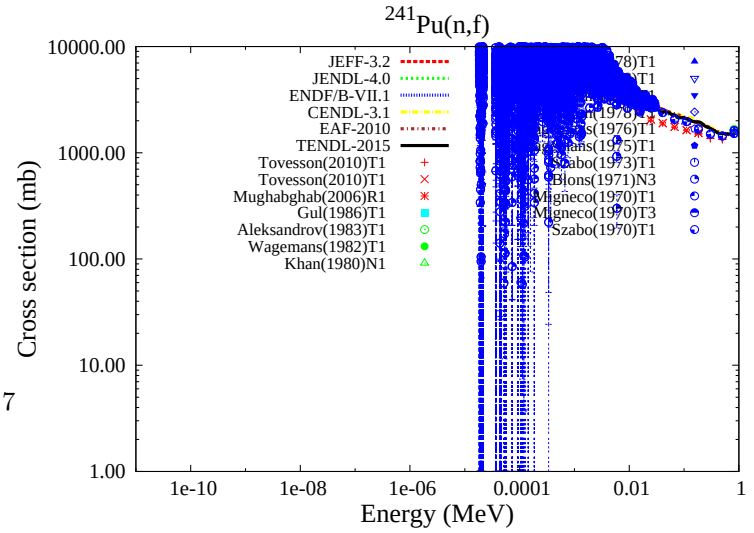
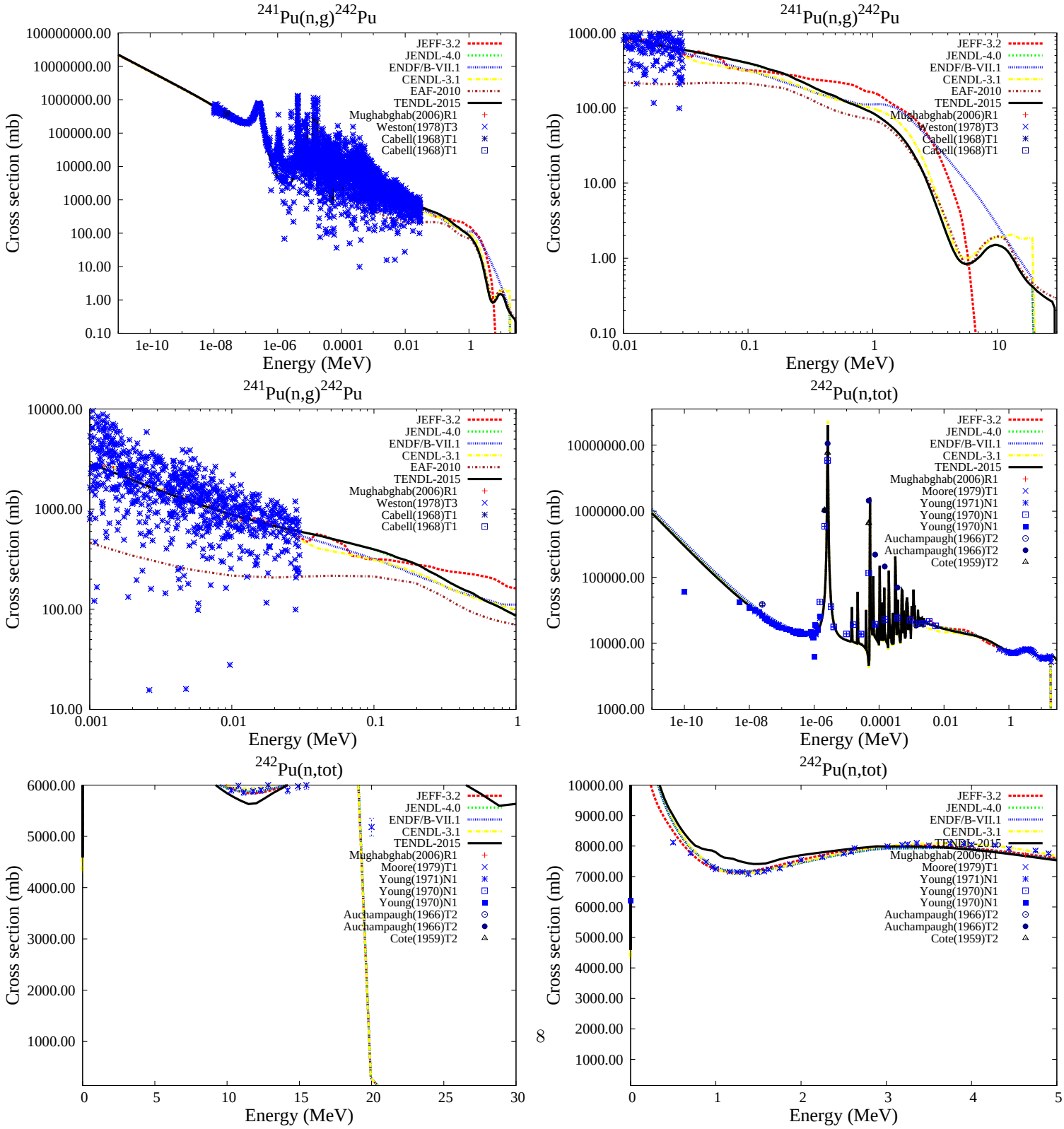
Sauter(1968)T2


241Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2010)T1
Tovesson(2010)T1
Mughabghab(2006)R1
Gul(1986)T1
Aleksandrov(1983)T1
Wagemans(1982)T1
Khan(1980)N1
Weston(1978)T1
Weston(1978)T1
Weston(1978)T1
Weston(1978)T1
Wagemans(1976)T1
Wagemans(1975)T1
Szabo(1973)T1
Blons(1971)N3
Migneco(1970)T1
Migneco(1970)T3
Szabo(1970)T1


241Pu(n,f)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2010)T1
Tovesson(2010)T1
Mughabghab(2006)R1
Gul(1986)T1
Aleksandrov(1983)T1
Wagemans(1982)T1
Khan(1980)N1


241Pu(n,g)242Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mughabghab(2006)R1
Weston(1978)T3
Cabell(1968)T1
Cabell(1968)T1
241Pu(n,g)242Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mughabghab(2006)R1
Weston(1978)T3
Cabell(1968)T1
Cabell(1968)T1
241Pu(n,g)242Pu
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mughabghab(2006)R1
Weston(1978)T3
Cabell(1968)T1
Cabell(1968)T1
242Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Moore(1979)T1
Young(1971)N1
Young(1970)N1
Young(1970)N1
Auchampaugh(1966)T2
Auchampaugh(1966)T2
Cote(1959)T2
242Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Moore(1979)T1
Young(1971)N1
Young(1970)N1
Young(1970)N1
Auchampaugh(1966)T2
Auchampaugh(1966)T2
Cote(1959)T2
242Pu(n,tot)
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
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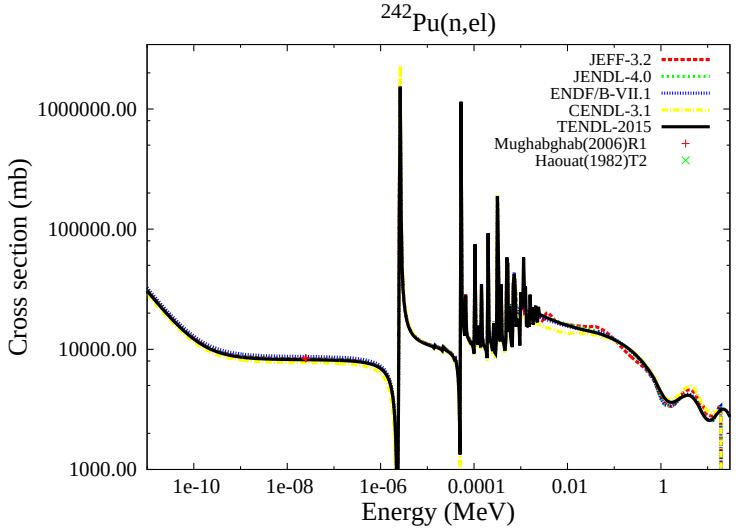
Mughabghab(2006)R1
Moore(1979)T1
Young(1971)N1
Young(1970)N1
Young(1970)N1
Auchampaugh(1966)T2
Auchampaugh(1966)T2
Cote(1959)T2


242Pu(n,el)
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JENDL-4.0
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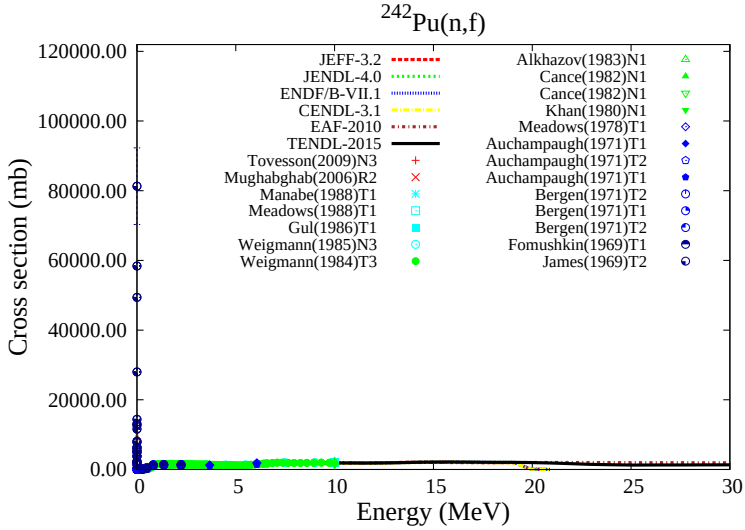
CENDL-3.1
TENDL-2015
Mughabghab(2006)R1
Haouat(1982)T2
Cross section (mb)
Energy (MeV)


242Pu(n,f)
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JENDL-4.0
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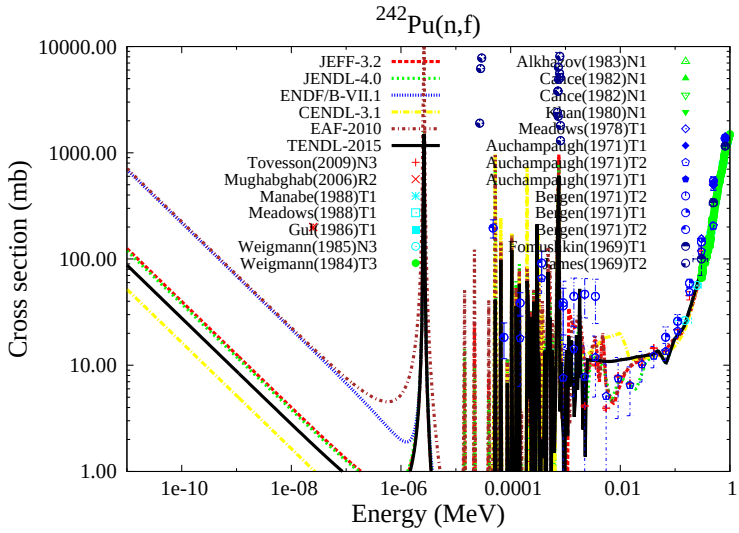
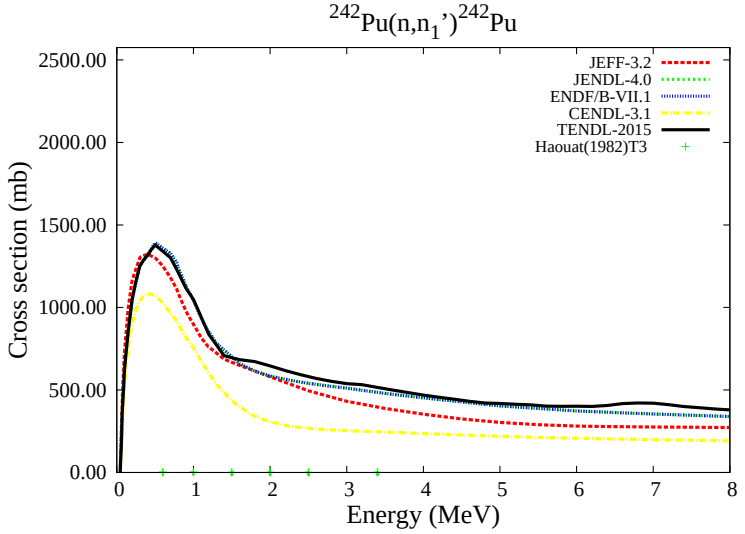
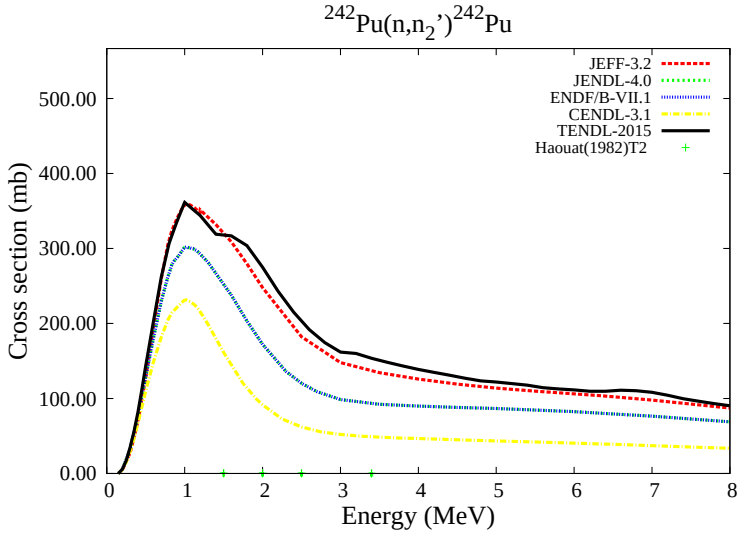
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2009)N3
Mughabghab(2006)R2
Manabe(1988)T1
Meadows(1988)T1
Gul(1986)T1
Weigmann(1985)N3
Weigmann(1984)T3
Alkhazov(1983)N1
Cance(1982)N1
Cance(1982)N1
Khan(1980)N1
Meadows(1978)T1
Auchampaugh(1971)T1
Auchampaugh(1971)T2
Auchampaugh(1971)T1
Bergen(1971)T2
Bergen(1971)T1
Bergen(1971)T2
Fomushkin(1969)T1
James(1969)T2
Cross section (mb)
Energy (MeV)


242Pu(n,f)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Tovesson(2009)N3
Mughabghab(2006)R2
Manabe(1988)T1
Meadows(1988)T1
Gul(1986)T1
Weigmann(1985)N3
Weigmann(1984)T3
Alkhazov(1983)N1
Cance(1982)N1
Cance(1982)N1
Khan(1980)N1
Meadows(1978)T1
Auchampaugh(1971)T1
Auchampaugh(1971)T2
Auchampaugh(1971)T1
Bergen(1971)T2
Bergen(1971)T1
Bergen(1971)T2
Fomushkin(1969)T1
James(1969)T2
Cross section (mb)
Energy (MeV)


242Pu(n,n1')242Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Haouat(1982)T3
Cross section (mb)
Energy (MeV)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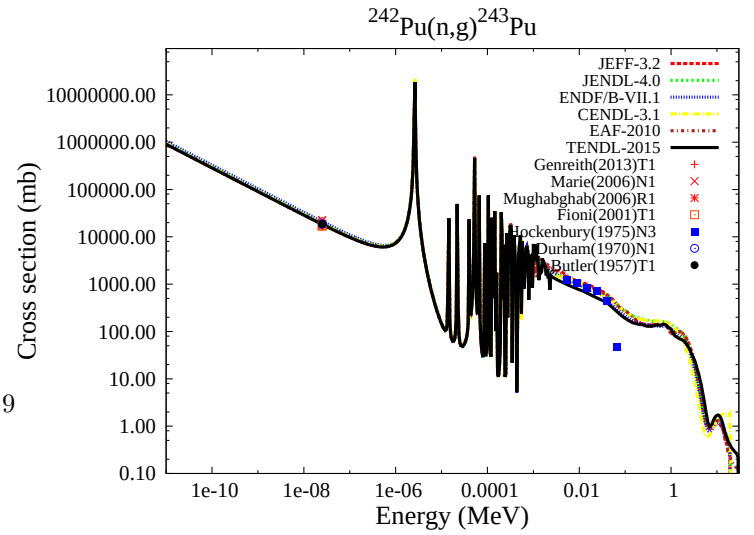
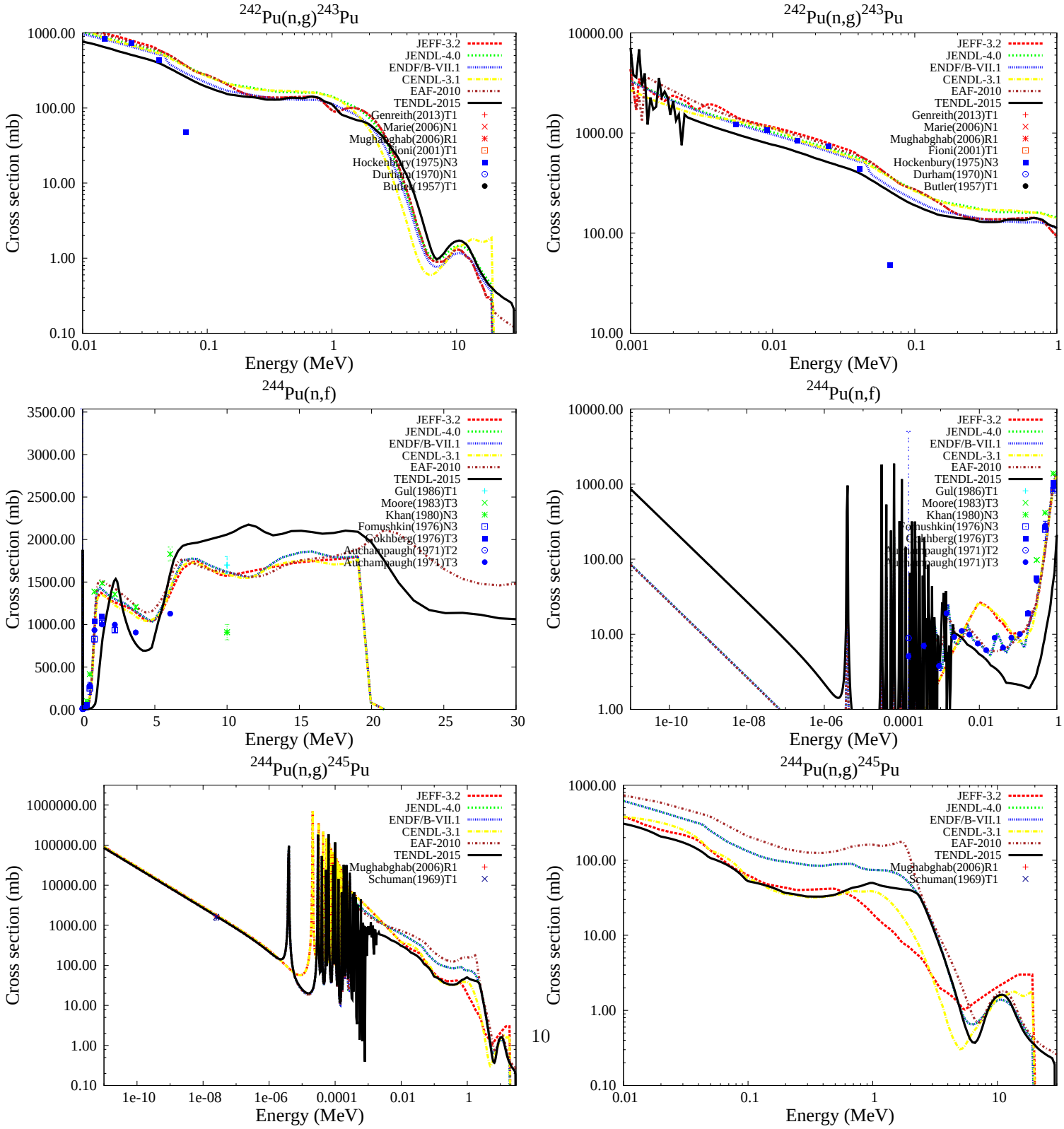
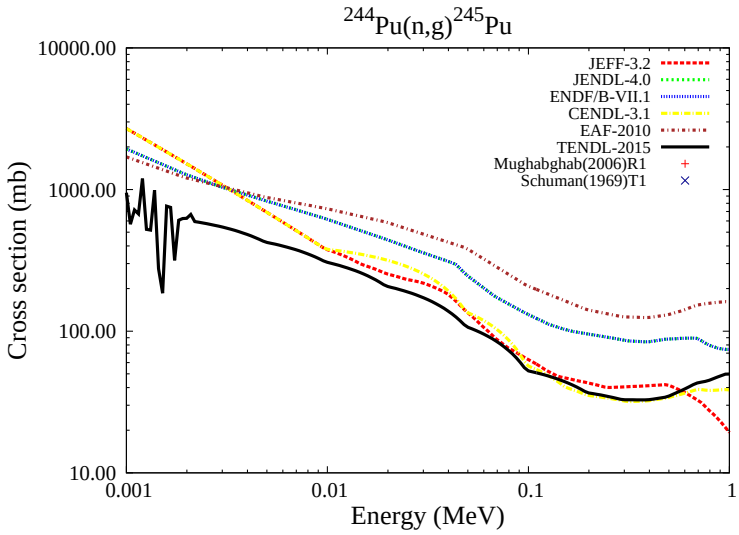
ENDF/B-VII.1
CENDL-3.1
TENDL-2015
Haouat(1982)T2
Cross section (mb)
Energy (MeV)


242Pu(n,g)243Pu
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Genreith(2013)T1
Marie(2006)N1
Mughabghab(2006)R1
Fioni(2001)T1
Hockenbury(1975)N3
Durham(1970)N1
Butler(1957)T1
Cross section (mb)
Energy (MeV)


242Pu(n,g)243Pu
Cross section (mb)
Energy (MEV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Genreith(2013)T1
Marie(2006)N1
Mughabghab(2006)R1
Fioni(2001)T1
Hockenbury(1975)N3
Durham(1970)N1
Butler(1957)T1
244Pu(n,f)
Gul(1986)T1
Moore(1983)T3
Khan(1980)N3
Fomushkin(1976)N3
Gokhberg(1976)T3
Auchampaugh(1971)T2
Auchampaugh(1971)T3
244Pu(n,g)245Pu
Schuman(1969)T1


$^{244}$Pu(n,g)$^{245}$Pu
10000.00
1000.00
100.00
10.00
0.001
0.01
0.1
1
Cross section (mb)
Energy (MeV)
JEFF-3.2
JENDL-4.0
ENDF/B-VII.1
CENDL-3.1
EAF-2010
TENDL-2015
Mughabghab(2006)R1
Schuman(1969)T1