

Report i2 - Energetically Feasible Aneutronic X + n D* --> Y + Z Reactions, n = 1 to 12
Where X = Cs55, Y=Pr59, (Potential reactions for Iwamura's Cs --> Pr transmutation)

----- Equations follow for Cesium, Cs, element 55 -----

133Cs55 + 4 D* --> 141Pr59 + 50.493 MeV [-0.856 MeV]	(i2_Cs:1)
133Cs55 + 5 D* --> 141Pr59 + 2H1 + 50.493 MeV [-14.495 MeV]	(i2_Cs:2)
133Cs55 + 6 D* --> 141Pr59 + 4He2 + 74.339 MeV [-4.601 MeV]	(i2_Cs:3)
133Cs55 + 7 D* --> 141Pr59 + 6Li3 + 75.813 MeV [-17.392 MeV]	(i2_Cs:4)
133Cs55 + 9 D* --> 141Pr59 + 10B5 + 104.121 MeV [-18.541 MeV]	(i2_Cs:5)
133Cs55 + 10 D* --> 141Pr59 + 12C6 + 129.307 MeV [-8.541 MeV]	(i2_Cs:6)
133Cs55 + 11 D* --> 141Pr59 + 14N7 + 139.579 MeV [-13.758 MeV]	(i2_Cs:7)
133Cs55 + 12 D* --> 141Pr59 + 16O8 + 160.316 MeV [-8.811 MeV]	(i2_Cs:8)

Total number of reaction equations: 8

Maximum number of D fused with X: 12

Adjustment factor to compound nucleus radius: 1

Energy threshold for including reaction, in eV: 10

Note - D* denotes a deflated state hydrogen nucleus, including the electron

Note - the energy in brackets is initial compound nucleus net energy,

i.e. the fusion energy less the deflated electron energy deficit