

Report i3 - Energetically Feasible Aneutronic X + n D* --> Y + Z Reactions, n = 1 to 12
 Where X = Sr38, Y=Mo42, (Potential reactions for Iwamura's Sr --> Mo transmutation)

----- Equations follow for Strontium, Sr, element 38 -----	
84Sr38 + 4 D* --> 92Mo42 + 58.704 MeV [16.854 MeV]	(i3_Sr:1)
84Sr38 + 5 D* --> 92Mo42 + 2H1 + 58.704 MeV [5.498 MeV]	(i3_Sr:2)
84Sr38 + 6 D* --> 92Mo42 + 4He2 + 82.551 MeV [17.640 MeV]	(i3_Sr:3)
84Sr38 + 7 D* --> 92Mo42 + 6Li3 + 84.024 MeV [7.065 MeV]	(i3_Sr:4)
84Sr38 + 9 D* --> 92Mo42 + 10B5 + 112.332 MeV [10.257 MeV]	(i3_Sr:5)
84Sr38 + 10 D* --> 92Mo42 + 12C6 + 137.518 MeV [22.384 MeV]	(i3_Sr:6)
84Sr38 + 11 D* --> 92Mo42 + 14N7 + 147.791 MeV [19.267 MeV]	(i3_Sr:7)
84Sr38 + 12 D* --> 92Mo42 + 16O8 + 168.527 MeV [26.287 MeV]	(i3_Sr:8)
86Sr38 + 4 D* --> 94Mo42 + 56.429 MeV [14.877 MeV]	(i3_Sr:9)
86Sr38 + 5 D* --> 94Mo42 + 2H1 + 56.429 MeV [3.595 MeV]	(i3_Sr:10)
86Sr38 + 5 D* --> 95Mo42 + 1H1 + 61.574 MeV [8.739 MeV]	(i3_Sr:11)
86Sr38 + 6 D* --> 94Mo42 + 4He2 + 80.276 MeV [15.810 MeV]	(i3_Sr:12)
86Sr38 + 6 D* --> 95Mo42 + 3He2 + 67.067 MeV [2.601 MeV]	(i3_Sr:13)
86Sr38 + 7 D* --> 94Mo42 + 6Li3 + 81.749 MeV [5.307 MeV]	(i3_Sr:14)
86Sr38 + 9 D* --> 94Mo42 + 10B5 + 110.057 MeV [8.640 MeV]	(i3_Sr:15)
86Sr38 + 10 D* --> 94Mo42 + 12C6 + 135.243 MeV [20.837 MeV]	(i3_Sr:16)
86Sr38 + 11 D* --> 94Mo42 + 14N7 + 145.516 MeV [17.790 MeV]	(i3_Sr:17)
86Sr38 + 12 D* --> 92Mo42 + 18O8 + 160.692 MeV [19.319 MeV]	(i3_Sr:18)
86Sr38 + 12 D* --> 94Mo42 + 16O8 + 166.252 MeV [24.879 MeV]	(i3_Sr:19)
87Sr38 + 4 D* --> 95Mo42 + 55.370 MeV [13.965 MeV]	(i3_Sr:20)
87Sr38 + 5 D* --> 95Mo42 + 2H1 + 55.370 MeV [2.718 MeV]	(i3_Sr:21)
87Sr38 + 5 D* --> 96Mo42 + 1H1 + 62.300 MeV [9.648 MeV]	(i3_Sr:22)
87Sr38 + 6 D* --> 95Mo42 + 4He2 + 79.216 MeV [14.968 MeV]	(i3_Sr:23)
87Sr38 + 6 D* --> 96Mo42 + 3He2 + 67.793 MeV [3.545 MeV]	(i3_Sr:24)
87Sr38 + 7 D* --> 94Mo42 + 7Li3 + 80.571 MeV [4.382 MeV]	(i3_Sr:25)
87Sr38 + 7 D* --> 95Mo42 + 6Li3 + 80.690 MeV [4.501 MeV]	(i3_Sr:26)
87Sr38 + 8 D* --> 94Mo42 + 9Be4 + 97.267 MeV [8.795 MeV]	(i3_Sr:27)
87Sr38 + 9 D* --> 94Mo42 + 11B5 + 113.083 MeV [11.989 MeV]	(i3_Sr:28)
87Sr38 + 9 D* --> 95Mo42 + 10B5 + 108.998 MeV [7.904 MeV]	(i3_Sr:29)
87Sr38 + 10 D* --> 94Mo42 + 13C6 + 131.762 MeV [17.713 MeV]	(i3_Sr:30)
87Sr38 + 10 D* --> 95Mo42 + 12C6 + 134.184 MeV [20.136 MeV]	(i3_Sr:31)
87Sr38 + 11 D* --> 94Mo42 + 15N7 + 147.921 MeV [20.587 MeV]	(i3_Sr:32)
87Sr38 + 11 D* --> 95Mo42 + 14N7 + 144.457 MeV [17.123 MeV]	(i3_Sr:33)
87Sr38 + 12 D* --> 94Mo42 + 17O8 + 161.967 MeV [21.020 MeV]	(i3_Sr:34)
87Sr38 + 12 D* --> 95Mo42 + 16O8 + 165.193 MeV [24.246 MeV]	(i3_Sr:35)
88Sr38 + 4 D* --> 96Mo42 + 53.412 MeV [12.151 MeV]	(i3_Sr:36)
88Sr38 + 5 D* --> 96Mo42 + 2H1 + 53.412 MeV [00.939 MeV]	(i3_Sr:37)
88Sr38 + 5 D* --> 97Mo42 + 1H1 + 58.008 MeV [5.536 MeV]	(i3_Sr:38)
88Sr38 + 6 D* --> 96Mo42 + 4He2 + 77.258 MeV [13.225 MeV]	(i3_Sr:39)
88Sr38 + 6 D* --> 97Mo42 + 3He2 + 63.502 MeV [-0.531 MeV]	(i3_Sr:40)
88Sr38 + 7 D* --> 95Mo42 + 7Li3 + 76.828 MeV [00.888 MeV]	(i3_Sr:41)
88Sr38 + 7 D* --> 96Mo42 + 6Li3 + 78.732 MeV [2.792 MeV]	(i3_Sr:42)
88Sr38 + 8 D* --> 95Mo42 + 9Be4 + 93.524 MeV [5.336 MeV]	(i3_Sr:43)
88Sr38 + 9 D* --> 95Mo42 + 11B5 + 109.339 MeV [8.565 MeV]	(i3_Sr:44)
88Sr38 + 9 D* --> 96Mo42 + 10B5 + 107.040 MeV [6.265 MeV]	(i3_Sr:45)
88Sr38 + 10 D* --> 95Mo42 + 13C6 + 128.018 MeV [14.323 MeV]	(i3_Sr:46)
88Sr38 + 10 D* --> 96Mo42 + 12C6 + 132.226 MeV [18.531 MeV]	(i3_Sr:47)
88Sr38 + 11 D* --> 95Mo42 + 15N7 + 144.177 MeV [17.230 MeV]	(i3_Sr:48)
88Sr38 + 11 D* --> 96Mo42 + 14N7 + 142.498 MeV [15.551 MeV]	(i3_Sr:49)
88Sr38 + 12 D* --> 94Mo42 + 18O8 + 158.898 MeV [18.372 MeV]	(i3_Sr:50)
88Sr38 + 12 D* --> 95Mo42 + 17O8 + 158.223 MeV [17.697 MeV]	(i3_Sr:51)
88Sr38 + 12 D* --> 96Mo42 + 16O8 + 163.234 MeV [22.708 MeV]	(i3_Sr:52)

Report i3 - Energetically Feasible Aneutronic $X + n D^* \rightarrow Y + Z$ Reactions, $n = 1$ to 12
Where $X = Sr38$, $Y=Mo42$, (Potential reactions for Iwamura's Sr \rightarrow Mo transmutation)

Total number of reaction equations: 52

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