

TABLE 7ASCREENING CORRECTIONS TO HEAVY ION REACTION 3α ^a

T_g/ρ	10^3	10^5	10^7	10^8	10^9	10^{10}
0.05	1.50(0)	1.05(1)	1.10(5)	2.47(10)	1.90(18)	8.51(18)
0.10	1.15(0)	3.40(0)	3.07(2)	2.36(5)	4.33(10)	1.04(15)
0.30	1.03(0)	1.32(0)	6.52(0)	5.67(1)	6.63(3)	3.65(7)
0.50	1.01(0)	1.14(0)	3.13(0)	1.05(1)	1.90(2)	6.10(4)
1.00	1.00(0)	1.05(0)	1.58(0)	3.40(0)	1.26(1)	2.71(2)
1.50	1.00(0)	1.02(0)	1.28(0)	2.16(0)	5.72(0)	4.01(1)
2.00	1.00(0)	1.02(0)	1.17(0)	1.67(0)	3.67(0)	1.53(1)
3.00	1.00(0)	1.01(0)	1.09(0)	1.32(0)	2.33(0)	6.46(0)
4.00	1.00(0)	1.01(0)	1.06(0)	1.20(0)	1.77(0)	4.07(0)
5.00	1.00(0)	1.00(0)	1.04(0)	1.14(0)	1.50(0)	3.12(0)
7.00	1.00(0)	1.00(0)	1.02(0)	1.08(0)	1.28(0)	2.15(0)
10.00	1.00(0)	1.00(0)	1.01(0)	1.05(0)	1.15(0)	1.58(0)

^a $X(^4\text{He})=1.0$, $\bar{A} = 4.0$, $\bar{Z} = 2.0$, $Y_e = 0.5$ **TABLE 7B**SCREENING CORRECTIONS TO HEAVY ION REACTION $\text{C}^{12} + \text{C}^{12}$ ^b

T_g/ρ	10^3	10^5	10^7	10^8	10^9	10^{10}
0.10	1.81(0)	1.65(1)	6.28(5)	1.50(12)	6.45(23)	4.69(33)
0.30	1.13(0)	2.37(0)	8.25(1)	1.45(4)	5.66(8)	1.08(17)
0.50	1.06(0)	1.72(0)	1.33(1)	3.08(2)	2.17(5)	7.70(10)
1.00	1.02(0)	1.23(0)	3.43(0)	1.65(1)	4.76(2)	4.79(5)
1.50	1.01(0)	1.12(0)	2.22(0)	6.18(0)	5.90(1)	6.68(3)
2.00	1.01(0)	1.07(0)	1.89(0)	3.80(0)	2.06(1)	7.48(2)
3.00	1.00(0)	1.04(0)	1.48(0)	2.37(0)	7.18(0)	8.07(1)
4.00	1.00(0)	1.03(0)	1.29(0)	1.98(0)	4.25(0)	2.61(1)
5.00	1.00(0)	1.02(0)	1.20(0)	1.72(0)	3.12(0)	1.33(1)
7.00	1.00(0)	1.01(0)	1.12(0)	1.42(0)	2.21(0)	6.10(0)
10.00	1.00(0)	1.01(0)	1.07(0)	1.23(0)	1.81(0)	3.43(0)

^b $X(^{12}\text{C}) = X(^{16}\text{O}) = 0.5$, $\bar{A} = 13.71$, $\bar{Z} = 6.86$, $Y_e = 0.5$

TABLE 7CSCREENING CORRECTIONS TO HEAVY ION REACTION $C^{12} + O^{16}$ ^c

T_g/ρ	10^3	10^5	10^7	10^8	10^9	10^{10}
0.10	2.07(0)	3.64(1)	2.21(7)	2.50(15)	1.28(30)	3.99(42)
0.30	1.18(0)	3.05(0)	2.78(2)	1.89(5)	1.19(11)	3.45(21)
0.50	1.08(0)	1.97(0)	2.78(1)	1.47(3)	5.77(6)	5.89(13)
1.00	1.03(0)	1.32(0)	4.93(0)	3.63(1)	2.54(3)	1.56(7)
1.50	1.01(0)	1.16(0)	2.80(0)	1.05(1)	1.82(2)	7.13(4)
2.00	1.01(0)	1.10(0)	2.15(0)	5.63(0)	4.82(1)	4.50(3)
3.00	1.01(0)	1.05(0)	1.67(0)	3.05(0)	1.27(1)	2.71(2)
4.00	1.00(0)	1.03(0)	1.42(0)	2.27(0)	6.49(0)	6.51(1)
5.00	1.00(0)	1.02(0)	1.28(0)	1.97(0)	4.36(0)	2.76(1)
7.00	1.00(0)	1.01(0)	1.16(0)	1.59(0)	2.78(0)	1.03(1)
10.00	1.00(0)	1.01(0)	1.09(0)	1.32(0)	2.07(0)	4.92(0)

^c $X(^{12}C) = X(^{16}O) = 0.5$, $\bar{A} = 13.71$, $\bar{Z} = 6.86$, $Y_e = 0.5$ **TABLE 7D**SCREENING CORRECTIONS TO HEAVY ION REACTION $O^{16} + O^{16}$ ^d

T_g/ρ	10^3	10^5	10^7	10^8	10^9	10^{10}
0.10	2.47(0)	1.01(2)	2.20(9)	3.68(19)	1.78(38)	1.33(54)
0.30	1.26(0)	4.26(0)	1.34(3)	5.24(6)	1.19(14)	2.29(27)
0.50	1.11(0)	2.30(0)	7.19(1)	1.11(4)	4.00(8)	3.14(17)
1.00	1.04(0)	1.48(0)	7.90(0)	1.01(2)	2.22(4)	1.42(9)
1.50	1.02(0)	1.23(0)	3.80(0)	2.07(1)	7.83(2)	1.52(6)
2.00	1.01(0)	1.14(0)	2.66(0)	9.36(0)	1.45(2)	4.57(4)
3.00	1.01(0)	1.08(0)	1.94(0)	4.25(0)	2.64(1)	1.29(3)
4.00	1.00(0)	1.05(0)	1.61(0)	2.89(0)	1.12(1)	2.12(2)
5.00	1.00(0)	1.03(0)	1.42(0)	2.30(0)	6.74(0)	7.11(1)
7.00	1.00(0)	1.02(0)	1.23(0)	1.84(0)	3.77(0)	2.02(1)
10.00	1.00(0)	1.01(0)	1.13(0)	1.48(0)	2.47(0)	7.88(0)

^d $X(^{16}O) = 1.0$, $\bar{A} = 16.0$, $\bar{Z} = 8.0$, $Y_e = 0.5$