**TABLE 6A**

THERMAL NEUTRINO LOSS RATES (erg $g^{-1}$ $s^{-1}$)[a]

| $T_9/\rho$ | $10^6$ | $10^7$ | $10^8$ | $10^9$ | $10^{10}$ | $10^{11}$ | $10^{12}$ |
|---|---|---|---|---|---|---|---|
| 0.01 | 5.42(-11) | 2.43(-22) | 0. | 0. | 0. | 0. | 0. |
| 0.03 | 9.39(-3) | 2.99(-5) | 3.96(-13) | 4.39(-32) | 0. | 0. | 0. |
| 0.05 | 6.29(-1) | 1.12(-1) | 9.56(-6) | 1.82(-16) | 0. | 0. | 0. |
| 0.10 | 2.54(1) | 8.41(1) | 4.83 | 1.33(-4) | 2.78(-16) | 0. | 0. |
| 0.30 | 1.47(3) | 2.30(4) | 8.12(4) | 2.41(4) | 3.45(1) | 4.02(-7) | 4.39(-26) |
| 0.50 | 2.87(4) | 1.39(5) | 1.01(6) | 1.69(6) | 1.31(5) | 9.72 | 1.82(-10) |
| 1.00 | 6.45(7) | 3.34(6) | 1.43(7) | 7.53(7) | 1.01(8) | 4.93(6) | 1.33(2) |
| 1.50 | 2.19(10) | 7.85(8) | 5.98(7) | 4.03(8) | 1.27(9) | 5.03(8) | 1.48(6) |
| 2.00 | 6.93(11) | 3.96(10) | 4.31(8) | 1.17(9) | 5.39(9) | 5.82(9) | 1.74(8) |
| 3.00 | 4.81(13) | 4.14(12) | 1.13(11) | 4.97(9) | 3.04(10) | 8.38(10) | 2.42(10) |
| 4.00 | 7.48(14) | 7.25(13) | 3.67(12) | 3.09(10) | 9.04(10) | 3.80(11) | 3.26(11) |
| 5.00 | 5.87(15) | 5.89(14) | 4.05(13) | 4.95(11) | 2.01(11) | 1.06(12) | 1.70(12) |
| 7.00 | 1.26(17) | 1.27(16) | 1.13(15) | 3.52(13) | 7.21(11) | 4.16(12) | 1.31(13) |
| 10.00 | 3.23(18) | 3.24(17) | 3.20(16) | 1.90(15) | 1.64(13) | 1.55(13) | 7.60(13) |

[a] The thermal rate is the sum of the plasma, pair, and photo process neutrino loss rates.

**TABLE 6B**

PLASMA PROCESS NEUTRINO LOSS RATES (erg $g^{-1}$ $s^{-1}$)

| $T_9/\rho$ | $10^6$ | $10^7$ | $10^8$ | $10^9$ | $10^{10}$ | $10^{11}$ | $10^{12}$ |
|---|---|---|---|---|---|---|---|
| 0.01 | 5.42(-11) | 2.43(-22) | 0. | 0. | 0. | 0. | 0. |
| 0.03 | 9.39(-3) | 2.99(-5) | 3.96(-13) | 4.39(-32) | 0. | 0. | 0. |
| 0.05 | 6.29(-1) | 1.12(-1) | 9.56(-6) | 1.82(-16) | 0. | 0. | 0. |
| 0.10 | 2.53(1) | 8.41(1) | 4.83 | 1.33(-4) | 2.78(-16) | 0. | 0. |
| 0.30 | 1.12(3) | 2.30(4) | 8.12(4) | 2.41(4) | 3.45(1) | 4.02(-7) | 4.39(-26) |
| 0.50 | 4.47(3) | 1.36(5) | 1.01(6) | 1.69(6) | 1.31(5) | 9.72 | 1.82(-10) |
| 1.00 | 2.30(4) | 1.07(6) | 1.42(7) | 7.53(7) | 1.01(8) | 4.93(6) | 1.33(2) |
| 1.50 | 5.37(4) | 3.08(6) | 5.42(7) | 4.03(8) | 1.27(9) | 5.03(8) | 1.48(6) |
| 2.00 | 9.37(4) | 6.12(6) | 1.32(8) | 1.16(9) | 5.39(9) | 5.82(9) | 1.74(8) |
| 3.00 | 1.93(5) | 1.47(7) | 4.33(8) | 4.66(9) | 3.04(10) | 8.38(10) | 2.42(10) |
| 4.00 | 3.11(5) | 2.56(7) | 9.49(8) | 1.18(10) | 9.02(10) | 3.80(11) | 3.26(11) |
| 5.00 | 4.40(5) | 3.80(7) | 1.68(9) | 2.38(10) | 1.99(11) | 1.05(12) | 1.70(12) |
| 7.00 | 7.20(5) | 6.57(7) | 3.69(9) | 6.60(10) | 6.20(11) | 4.16(12) | 1.31(13) |
| 10.00 | 1.17(6) | 1.11(8) | 7.65(9) | 1.85(11) | 1.96(12) | 1.54(13) | 7.60(13) |

**TABLE 6C**

PAIR PROCESS NEUTRINO LOSS RATES (erg $g^{-1}$ $s^{-1}$)

| $T_9/\rho$ | $10^6$ | $10^7$ | $10^8$ | $10^9$ | $10^{10}$ | $10^{11}$ | $10^{12}$ |
|---|---|---|---|---|---|---|---|
| 0.01 | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0.03 | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0.05 | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0.10 | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 0.30 | 1.42(-8) | 2.22(-13) | 1.64(-23) | 0. | 0. | 0. | 0. |
| 0.50 | 7.70 | 6.49(-3) | 2.57(-9) | 9.82(-23) | 0. | 0. | 0. |
| 1.00 | 5.92(7) | 8.37(5) | 1.57(2) | 6.61(-6) | 1.96(-20) | 0. | 0. |
| 1.50 | 2.17(10) | 7.37(8) | 1.11(6) | 4.95 | 3.65(-10) | 1.86(-30) | 0. |
| 2.00 | 6.92(11) | 3.91(10) | 2.30(8) | 1.23(4) | 1.45(-4) | 4.05(-20) | 0. |
| 3.00 | 4.81(13) | 4.12(12) | 1.09(11) | 9.65(7) | 1.97(2) | 3.03(-9) | 5.32(-31) |
| 4.00 | 7.48(14) | 7.23(13) | 3.63(12) | 1.53(10) | 4.51(5) | 1.65(-3) | 3.68(-20) |
| 5.00 | 5.87(15) | 5.88(14) | 4.02(13) | 4.37(11) | 6.97(7) | 6.86 | 1.77(-13) |
| 7.00 | 1.26(17) | 1.27(16) | 1.13(15) | 3.43(13) | 4.29(10) | 1.90(5) | 1.55(-5) |
| 10.00 | 3.23(18) | 3.23(17) | 3.19(16) | 1.88(15) | 1.24(13) | 1.03(9) | 3.61(1) |

**TABLE 6D**

PHOTO PROCESS NEUTRINO LOSS RATES (erg $g^{-1}$ $s^{-1}$)

| $T_9/\rho$ | $10^6$ | $10^7$ | $10^8$ | $10^9$ | $10^{10}$ | $10^{11}$ | $10^{12}$ |
|---|---|---|---|---|---|---|---|
| 0.01 | 9.02(-27) | 0. | 0. | 0. | 0. | 0. | 0. |
| 0.03 | 3.48(-10) | 3.11(-18) | 1.20(-35) | 0. | 0. | 0. | 0. |
| 0.05 | 3.46(-6) | 5.53(-11) | 1.52(-21) | 0. | 0. | 0. | 0. |
| 0.10 | 1.27(-2) | 8.37(-5) | 3.65(-10) | 1.51(-21) | 0. | 0. | 0. |
| 0.30 | 3.48(2) | 2.41(1) | 4.40(-1) | 6.07(-5) | 3.35(-13) | 1.21(-30) | 0. |
| 0.50 | 2.43(4) | 3.10(3) | 1.08(2) | 6.29(-1) | 6.06(-6) | 1.54(-16) | 5.48(-39) |
| 1.00 | 5.23(6) | 1.43(6) | 9.03(4) | 2.67(3) | 1.00(1) | 4.00(-5) | 1.63(-16) |
| 1.50 | 1.20(8) | 4.51(7) | 4.44(6) | 1.60(5) | 3.09(3) | 8.15(-1) | 1.68(-8) |
| 2.00 | 1.17(9) | 5.31(8) | 6.78(7) | 3.22(6) | 8.89(4) | 2.10(2) | 3.26(-4) |
| 3.00 | 3.04(10) | 1.74(10) | 3.04(9) | 2.15(8) | 7.10(6) | 1.13(5) | 1.53(1) |
| 4.00 | 3.06(11) | 2.00(11) | 4.33(10) | 3.83(9) | 1.61(8) | 4.18(6) | 5.95(3) |
| 5.00 | 1.81(12) | 1.30(12) | 3.32(11) | 3.37(10) | 1.76(9) | 5.14(7) | 2.92(5) |
| 7.00 | 2.56(13) | 2.05(13) | 6.84(12) | 8.28(11) | 5.81(10) | 2.00(9) | 3.87(7) |
| 10.00 | 4.08(14) | 3.57(14) | 1.57(14) | 2.31(13) | 2.01(12) | 9.63(10) | 2.73(9) |