Rate Reactions 1

| No. | Reaction | A | n_g | E_g | n_e | E_e | $\Delta \varepsilon_e$ | $\Delta \varepsilon_g$ | Ref. |
|--------|---|------------------------|------------|-------|-------|-------------------------------|-----------------------------|------------------------------------|-----------------------|
| 1 | $Ar(\beta) + e \rightarrow Ar^r + e$ | 2.00×10^{-7} | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | [1] 1 |
| 2 | $2Ar(\alpha) \to Ar^+ + Ar + e$ | 6.20×10^{-10} | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | $[1]^{2}$ |
| 3 | $Ar(\beta) + Ar \rightarrow 2Ar$ | 3.00×10^{-15} | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | [1] |
| 4 | $Ar(\alpha) + 2Ar \rightarrow Ar_2 + Ar$ | 1.10×10^{-31} | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | [1] |
| | | | | | | | | | |
| | | | | | | | | | |
| No. | Reaction | $A n_g$ | E_g | n_e | E_e | $\Delta arepsilon_e$ | Δ | $\Delta arepsilon_g$ | Ref. |
| No | Reaction $Ar + e \rightarrow Ar(\alpha) + e$ | | E_g EDF | n_e | | $\Delta \varepsilon_e$.16×10 | | $\frac{\Delta \varepsilon_g}{.00}$ | Ref. [1] ³ |
| | | | | n_e | 1 | | 0^{1} 0 | .00 | |
| 5 | $Ar + e \rightarrow Ar(\alpha) + e$ | E E | EDF | n_e | 1 | .16×10 | 0^{1} 0^{1} 0 | .00 | [1] ³ |
| 5 6 | $Ar + e \rightarrow Ar(\alpha) + e$ $Ar + e \rightarrow Ar^{+} + 2e$ | E E | EDF EDF | n_e | 1 | .16×10 | 0^{1} 0 0^{1} 0 0 | .00 | $[1]^{3}$ $[1]^{4,5}$ |

EEDF

0.00

0.00

[1]

 $Ar + e \rightarrow Ar + e$

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¹Species 'Ar(β)' has been lumped into 'Ar*', ²Species 'Ar(α)' has been lumped into 'Ar*', ³This is a test

 $^{^4}$ this one 5 has 2 notes

References

[1] Dimitris P Lymberopoulos and Demetre J Economou. "Fluid simulations of glow discharges: Effect of metastable atoms in argon". In: *Journal of applied physics* 73.8 (1993), pp. 3668–3679.