Correction

Correction to "Examination of Excitation Temperature of Vacuum Arc Based on Collisional-Radiative Model"

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IN THE above article [1], (7) is incorrect because (7) is for the esu-cgs unit. The authors have solved the collisional-radiative model equations in the following excitation rate in the SI unit.

$$X_{mn} = \frac{f_{mn} q_e^4 n_e \langle \bar{g} \rangle}{4\varepsilon_0^2 \Delta E_{nm}} \left(\frac{2}{3\pi m_e k_B T_e} \right)^{\frac{1}{2}} \exp\left(-\frac{\Delta E_{nm}}{k_B T_e} \right). \quad (7)$$

Equation (9) is also incorrect. The correct A_{nm} is as follows:

$$A_{nm} = \frac{2\pi q_e^2 \Delta E_{nm}^2}{\varepsilon_0 h_P^2 m_e c^3} \frac{g_n}{g_m} f_{mn}. \quad (9)$$

Note that the calculation has been conducted using A_{nm} in the database.

We apologize for any confusion this may have caused.

REFERENCES

[1] H. Ejiri et al., "Examination of excitation temperature of vacuum arc based on collisional-radiative model," *IEEE Trans. Plasma Sci.*, vol. 49, no. 6, pp. 1948–1954, Jun. 2021, doi: 10.1109/TPS.2021.3077972.

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