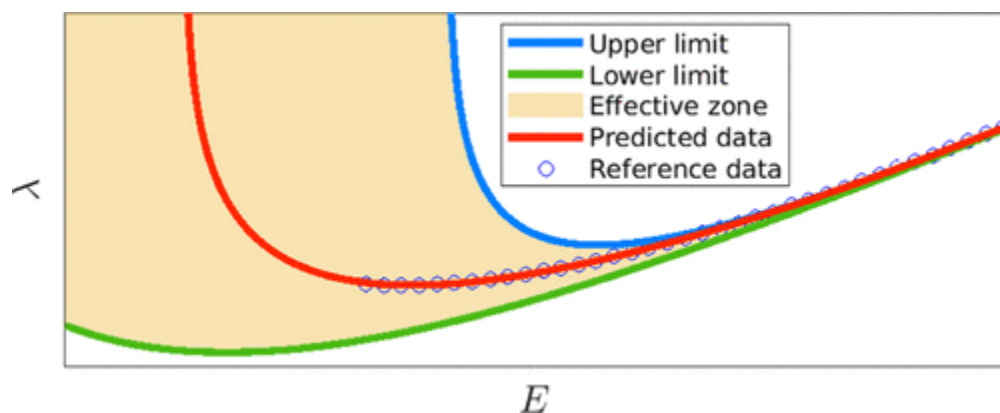

An effective analytical formula for the Electron Inelastic Mean Free PathDai-Nam Le^{1,*} and Hieu T. Nguyen Truong²¹ *Atomic Molecular and Optical Physics Research Group, Advanced Institute of Materials Science, Ton Duc Thang University - Ho Chi Minh City, Vietnam*² *Laboratory of Applied Physics, Advanced Institute of Materials Science, Ton Duc Thang University - Ho Chi Minh City, Vietnam** Email: ledainam@tdtu.edu.vn**Abstract**

The electron inelastic mean free path (IMFP) is the average distance between successive inelastic collisions of an electron moving in a medium with a given energy. In 2015, an analytical formula for IMFPs was approximately derived from IMFP 's definition [1]. However, the derived formula is restricted to energies above 500 eV. This limitation is overcome in our most recent work [2]. The lower limit of the present analytical formula for IMFPs is about 50 eV.

Figure abstract

References

[1] Hieu T. Nguyen-Truong * (2021), “Analytical Formula for High-Energy Electron Inelastic Mean Free Path”, *Journal of Physical Chemistry C* **119**, 23627.

[2] **Dai-Nam Le**, Hieu T. Nguyen-Truong * (2021), “Analytical formula for electron inelastic mean free path”, *Journal of Physical Chemistry C* **125**, 18946.
