

Erratum: Electronic interaction of slow hydrogen, helium, nitrogen, and neon ions with silicon **[Phys. Rev. B 107, 155145 (2023)]**

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Due to an error in calculating the incoming velocity from the incoming energy value for N and Ne ions, several of the presented values were displayed at the wrong velocities, with differences between erroneous and correct values less than 5%. The main text remains valid. The electronic SCS values are compiled in the correct velocities in the new Fig. 5 and Fig. 6 (the reference numbering refers to the paper) as follows:

(1) N ions:

(2) Ne ions:

Based on the new fits to the data for $v/v_0 < 1$, assuming velocity proportionality of the electronic energy loss, we recalculate the measured friction coefficient for N which corresponds to a FEG with a density parameter of $r_{s,\text{exp}} = 1.5$ and $N_{\text{val},\text{exp}} = 9.6$ electrons per Si atom, and for Ne, to $r_{s,\text{exp}} = 1.2$ and $N_{\text{val},\text{exp}} = 18.7$ electrons per Si atom. The discussion and conclusions in the paper remain unaffected by the updated $r_{s,\text{exp}}$ and $N_{\text{val},\text{exp}}$ values for N and Ne ions since these values are still quite high electron densities per matrix atom.

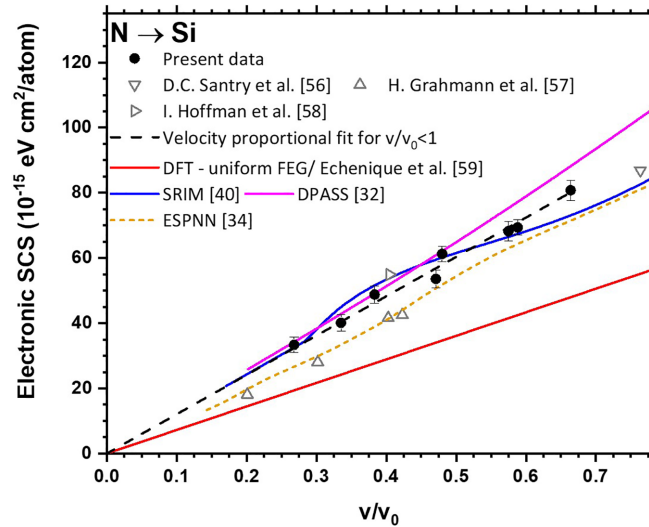


FIG. 5. Electronic stopping cross sections of Si for N ions as a function of velocity. SRIM (blue line) and ESPNN predictions (dark yellow dashed line) along with theoretical predictions and previously measured datasets are also included. The black dashed line corresponds to a velocity proportional fit to the present SCS (up to $1 v/v_0$) as a function of velocity.

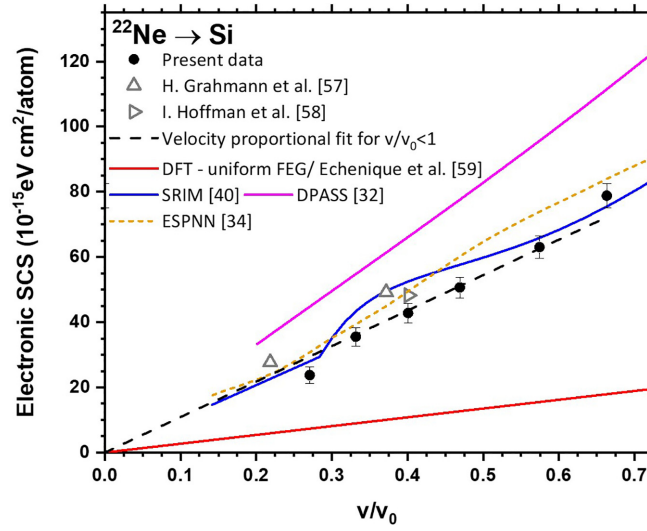


FIG. 6. Electronic stopping cross sections of Si for ^{22}Ne ions as a function of velocity. SRIM (blue line) and ESPNN predictions (dark yellow dashed line) along with theoretical predictions and previously measured datasets are also included. The black dashed line corresponds to a linear fit to the present SCS (up to $1 v/v_0$) as a function of velocity.