

Experimental stopping data of, ^{63}Cu , ^{28}Si and ^{27}Al heavy ions in thin Polyvinylchloride (H3C2Cl1) foil have been obtained over the 0.045-0.50MeV/nucleon energy range. The measured energy losses were carried out by Heavy Ion Elastic Recoil Detection Analysis (HI-ERDA) technique coupled with time of flight (ToF) spectrometer. A continuous stopping power data obtained in this work are well fitted by our proposed semi-empirical formula and the results are compared to those calculated by LSS formula or generated by SRIM-2013 and MSTAR predictions. Calculations using our formula agree well with the obtained experimental stopping powers, while the LSS formula underestimates the experimental data in the whole investigated energy range. In this work a simple expression for electronic stopping power of heavy ions at low energy in solid targets is introduced. This formula is based on the Firsov and Lindhard-Sharff stopping power models with a small modification made to the original expression, by incorporating the effective charge of moving ions concept and with exponential fit function