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Low Velocity Ion Stopping in Dense and Multicomponent Plasmas BEKBOLAT TASHEV, KazNu Almaty Kazakhstan, CLAUDE DEUTSCH, LPGP UParis XI, PATRICE FROMY, CRI UParis XI, KAZAKH COLLABORATION — We focus attention on low velocity ion slowing down (LIVSD) in dense and multicomponent plasmas of ICF and astrophysical interest. The target is treated in a dielectric formalism with classical electrons neutralizing binary ionic mixtures (BIM) of any relative proportion.We consider first charge symmetric BIM such as deuterium-tritium, proton-heliumlike iron ions in the solar interior or proton-helium ions considered in planetology as well as other mixtures of relevance to the heavy ion production of warm dense matter at Bragg peak conditions. We single out ion projectile velocities (so-called critical) at which target electron LIVSD matches the sum of target ion ones. Proton stopping in the white dwarf crust (carbon-helium BIM) is also considered.

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