Charge transfer for collisions of Si^{3+} with atomic hydrogen

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Abstract

Charge transfer for collisions of Si^{3+} with atomic hydrogen was investigated theoretically at projectile energies below ionization threshold of about 20 keV/amu. The electron nuclear dynamics (END) method was used to analyze the collision process. Total and differential charge transfer cross section were calculated. Comparison of the present charge transfer cross section with experimental data shows a good agreement.