

LOW-ENERGY ELECTRON CAPTURE BY B⁴⁺ IONS FROM HYDROGEN ATOMS¹

M. Pieksma² and C. C. Havener

Using a merged-beam technique, the absolute, total electron-capture cross section has been measured for collisions of B⁴⁺ ions with hydrogen (deuterium) atoms at collision energies between 60 and 2300 eV/amu. The data are compared to two semiclassical coupled-channel molecular-orbital calculations, which differ by 30% with respect to each other over the entire energy range, and to two previous measurements at higher energies that differ by up to a factor of 2.

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 2. Debye Institute, Utrecht University, Utrecht, the Netherlands.