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Fully Differential and Double Differential Cross Sections for Single Ionization of H2 by 75 keV Proton Impact[1] UTTAM CHOWDHURY, MICHAEL SCHULZ, DON MADISON, Missouri S&T — We have calculated 3DW-EIS (3 body distorted wave – Eikonal initial state) fully differential cross sections (FDCS) and doubly differential cross sections (DDCS) for single ionization of H2 by 75 KeV proton impact. Previously published DDCS (differential in the projectile scattering angle and integrated over the ejected electron angles) have found pronounced structures at relatively large angles which were interpreted as an interference resulting from the two-center potential of the molecule. We will investigate the source of these interference effects in the FDCS and examine how interference at the fully differential level can be still observable at the double differential level.

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