

RESONANCES IN Ps-H SCATTERING

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A sudden change in phase shift by π radian is known as resonance. If it is in the s-wave and below inelastic threshold then it indicates a binding in the system. An accurate calculation is required for successful identification of a resonance. A complete and exact calculation is performed for collision of positronium (Ps) by hydrogen (H) using the best 3-channel projectile-inelastic [1] close-coupling approximation (CCA) for both the singlet and triplet channels. Resonances are observed in s-wave elastic phase shifts in both the channels below the inelastic threshold. The resonance in singlet channel is in agreement with the earlier prediction [2-5]. The resonance in triplet channel indicates a new type of binding. Detailed is being presented at the conference.

References

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