

# FORMATION OF $\text{HeH}^+$ FROM POSITRON INTERACTION WITH $\text{H}_2$ AND He MIXTURES<sup>1</sup>

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We have observed the production of  $\text{HeH}^+$  ions by the bombardment of gaseous mixtures of  $\text{H}_2$  and He with slow positrons and measured its dependence on the positron energy. The formation is believed to involve vibrational excitation of  $\text{H}_2^+$  via positronium formation, followed by proton transfer from  $\text{H}_2^+$  to He. The significance of these results with respect to astrophysics is discussed.

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