

Muon Capture: Status and Prospects

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The MuCap experiment at PSI has published its final result on g_P , the weak-pseudoscalar coupling of the proton.

A novel ultra-pure hydrogen TPC served as an imaging stopping volume. In gas, the μp capture rate is relatively

immune to the poorly known molecular physics complications that plagued previous efforts by others.

The result, $g_P = 8.06 \pm 0.55$ is in excellent agreement with chiral perturbation theory predictions and provides a unambiguous and stringent test of low energy QCD. After summarizing the technique and the main results, the status

and prospects of this field will be reviewed.

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