

Polarization of epi-thermal neutron (0.75 eV)

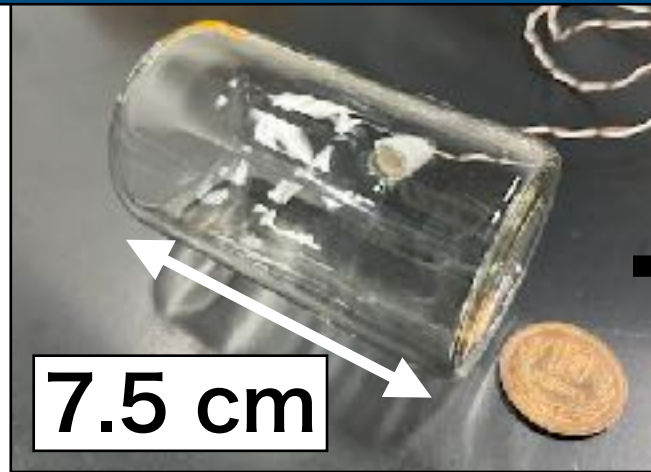
Development of in-situ ^3He spin filter for epithermal neutrons
to search for T-violation using compound nuclei

No.18

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S. Kudo, R. Kobayashi, H. M. Shimizu, Y. Suto, S. Takada, S. Takahashi, T. Yamaguchi, and NOPTREX collaboration

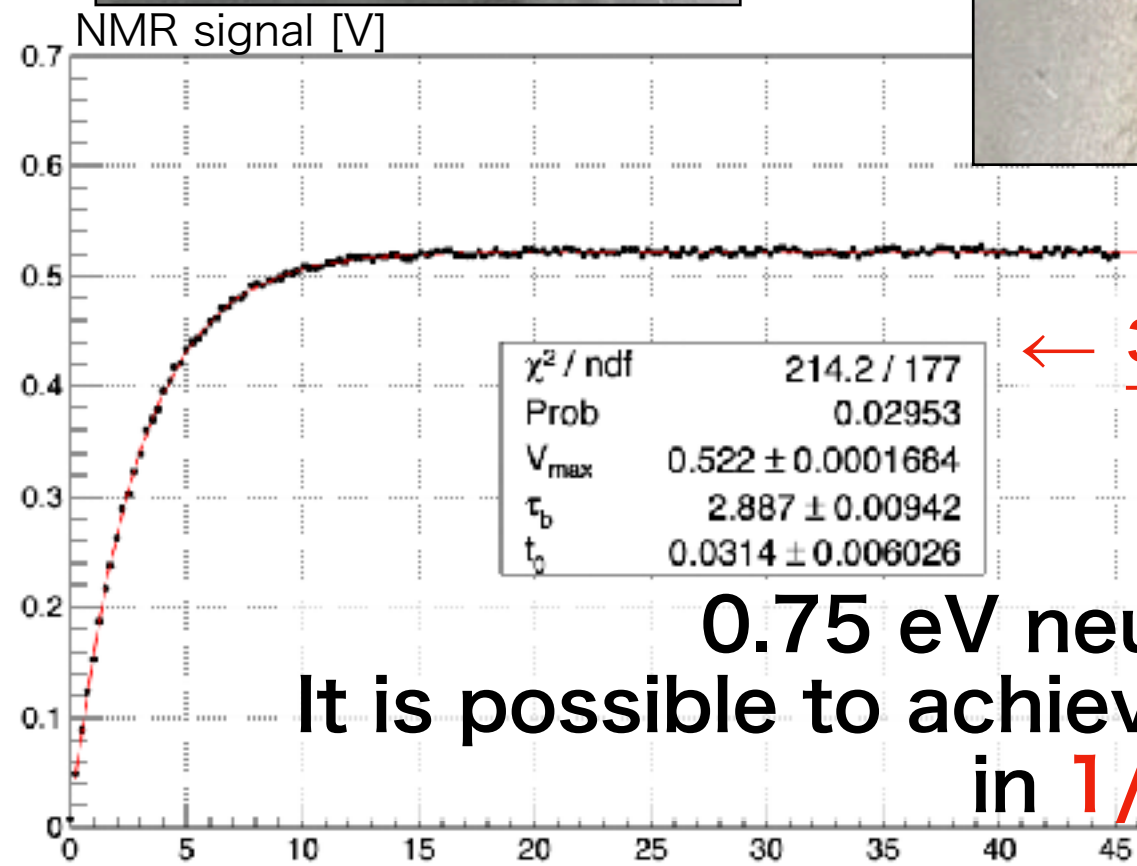
The world's longest ^3He spin filter!!!

Conventional (3 atm)



$\times 2.7$

New (3 atm)



^3He polarization was reached 80%!!

0.75 eV neutron polarization : **82%**

It is possible to achieve the same statistical uncertainty
in **1/2.8** of the time!!