

## **The Proximity Effect at the Interface between Superfluid $^3\text{He-B}$ and 97.5% Porosity Aerogel**

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Recently, a novel feature of condensate state in liquid  $^3\text{He}$  is predicted theoretically, which consists of spin triplet s-wave Cooper pairs.<sup>1</sup> Such a spin triplet s-wave state will appear inside aerogel near the surface boundary contacting with superfluid  $^3\text{He-B}$ . This interface between superfluid  $^3\text{He-B}$  and aerogel changes the way of quasiparticle scattering to have not only p-wave scattering but also other types of them. As a result, spin triplet s-wave pair amplitude will be dominant with odd symmetry in time region, so called an odd frequency Cooper pair.

In order to detect this proximity effect, we made the interface in columnar glass tube, and set three saddle shape NMR coils on outside of the glass tube at bulk  $^3\text{He}$ , the interface, and 97.5% porosity aerogel.

We are now performing cw-NMR measurements down to 0.5mK at 24 bar.

<sup>1</sup>S.Higashitani et al, JLTP, **115**, 83-97 (2009).