Abstract Submitted for the HAW05 Meeting of The American Physical Society

A New Ultracold Neutron Source for Fundamental Physics YA-SUHIRO MASUDA, IPNS, KEK — Ultracold neutrons (UCN) can be used for various kinds of experiments on fundamental physics, for example neutron EDM, neutron beta decay, gravity, neutron capture of RI beams and n-nbar oscillation. In these experiments, UCN density is the most important parameter. New generation UCN sources are being developed in many institutes in the world. We are developing a spallation UCN production in superfluid helium (He-II) [1]. In the mini-symposium, we will discuss the present status and future possibilities of the He-II spallation UCN source.

[1] Y. Masuda et al. Phys. Rev. Lett. 89 (2002) 284801.

Yasuhiro Masuda IPNS, KEK

Date submitted: 27 May 2005 Electronic form version 1.4