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**Testing of a Helmholtz Microcoil in a Diamond Anvil Cell NMR**
CHING LIN[1], SAM WEIR[2], University of California, Davis, SAMUEL WEIR[3], Lawrence Livermore National Labratory, NICHOLAS CURRO[4], University of California, Davis, LAWRENCE LIVERMORE NATIONAL LABRATORY COLLABORATION — A new designed, multi-turn tungsten Helmholtz micro-coil has been constructed and tested on the solid-state bulk NMR experiment. A Helmholtz micro-coil with diameter 950 $\mu$m is embedded on diamond culet and produces a nearly uniform AC magnetic field inside a sample space. A Fluorine polycrystal will be used to test our Helmholtz micro-coil, and the measured NMR data will be compared with the ones produced by other type of diamond anvil cell coils. The Helmholtz micro-coil will be used for high pressure NMR and future investigation of magnetic properties of heavy fermion superconductors.

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