

W0497

IBARAKI Biological Crystal Diffractometer in J-PARC (BIX-P1) – General View. I. Tanaka¹, N. Niimura¹, T. Ozeki², T. Ohhara³, K. Kurihara³, K. Kusaka³, K. Aizawa³, Y. Morii³, M. Arai³, K. Ebata⁴, Y. Takano⁴, ¹Ibaraki Univ., Hitachi, Ibaraki 316-8511, Japan, ²Tokyo Inst. of Tech., Meguro, Tokyo 152-8551, Japan, ³JAEA, Tokai, Ibaraki 319-1195, Japan, ⁴Ibaraki Pref. Gov., Mito, Ibaraki 310-8555, Japan.

Ibaraki Prefectural Government in Japan has started to construct a neutron diffractometer for biological macromolecules for industrial use at J-PARC. The diffractometer is designed to cover the sample crystals which have their cell edges up to around 150 Å. It is expected to measure 100 samples per year if they have 2mm³ in crystal volume. The efficiency is more than 50 times larger than the present high performance diffractometers, BIX-4 in JRR-3 reactor in JAEA. To realize this performance, two important and key items should be developed; a detector and a software in data reduction. The current status of these developments will be reported with the latest parameters of this diffractometer, including detector, optics and shielding information.

