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Production of drip-line nuclei at RIKEN RI Beam Factory ATSUMI SAITO, Tokyo Institution of Technology — Production cross-sections and secondary-beam yields of very neutron rich nuclei near neutron drip-line at 200-250MeV/u have been investigated at RIKEN RI Beam Factory (RIBF). RIBF is the next generation RI beam facility, which can produce a variety of exotic nuclei with high intensity. The measurement of production yields of ^{19}B, ^{22}C, which are located on the neutron drip-line, and neighboring isotopes was made on the occasion of the Coulomb and nuclear breakup experiments of these halo nuclei at SAMURAI (Superconducting Analyzer for MUlti-particle from RAdioIsotope beams) facility at RIBF. We used 345MeV/u ^{48}Ca beam as primary beam, which impinged on 30mm-thick Be target, to obtain secondary beams by projectile fragmentation. The projectile fragments were then separated through Superconducting RI beam separator BigRIPS, and were identified by measuring time of flight (TOF), energy loss (ΔE), and magnetic rigidity ($B\rho$) by the standard detectors at 2nd stage of BigRIPS. We thus obtained production cross-sections and yields of carbon and boron isotopes. The production cross-sections and yields extracted were compared with the simulation code LISE using EPAX. We discuss these results and comparisons in this poster presentation.

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