



Contribution ID: 29

Type: not specified

## Predictions for production of ${}^3\text{H}$ and ${}^3\overline{\text{H}}$ in isobaric ${}^{96}_{44}\text{Ru}+{}^{96}_{44}\text{Ru}$ and ${}^{96}_{40}\text{Zr}+{}^{96}_{40}\text{Zr}$ collisions at $\sqrt{s_{\text{NN}}} = 200 \text{ GeV}$

The production of  ${}^3\text{H}$  and  ${}^3\overline{\text{H}}$ , as well as  ${}^3\text{H}$ ,  ${}^3\overline{\text{H}}$ ,  ${}^3\text{He}$ , and  ${}^3\overline{\text{He}}$  are studied in central collisions of isobars  ${}^{96}_{44}\text{Ru} + {}^{96}_{44}\text{Ru}$  and  ${}^{96}_{40}\text{Zr} + {}^{96}_{40}\text{Zr}$  at  $\sqrt{s_{\text{NN}}} = 200 \text{ GeV}$ , using the dynamically constrained phase-space coalescence model and the PACIAE model with chiral magnetic effect.

The yield, yield ratio, coalescence parameters, and strangeness population factor of (anti-)hypertriton and (anti-)nuclei produced in isobaric  ${}^{96}_{44}\text{Ru}+{}^{96}_{44}\text{Ru}$  and  ${}^{96}_{40}\text{Zr}+{}^{96}_{40}\text{Zr}$  collisions are predicted.

The (anti-)hypertriton and (anti-)nuclei production is found to be insensitive to the chiral magnetic effects. Experimental data of Cu+Cu, Au+Au and Pb+Pb collisions from RHIC, LHC, and the results of PACIAE+DCPC model are presented in the results for comparison.

**Primary authors:** SHE, Zhilei (China University of Geosciences); Prof. 陈, 刚 (中国地质大学)

**Co-author:** 周, 代梅 (CCNU)

**Presenter:** SHE, Zhilei (China University of Geosciences)