

Abstract Submitted
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Contributing towards Astrophysics and Physics Curriculum Enrichment through LLNL's Teacher Research Academy TESSIE LUMABAO, Waipahu High School - Department of Education, PETER BEIERSDORFER COLLABORATION, GREG BROWN COLLABORATION, NATALIE HELL COLLABORATION, TOM LOCKARD COLLABORATION, DAVID VOGEL COLLABORATION — The purpose of this presentation is to share my experience at the Lawrence Livermore National Laboratory's Teacher Research Academy. The academy provides opportunities for teachers to work with scientists in biotechnology, climate change, and astrophysics. As an astrophysics teacher intern, I worked with LLNL's EBIT (electron beam ion trap) scientists to help further resolve the Fe XVII emission problem by determining the polarization of lines 3C and 3D for Mo XXXIII and created a spectra for the lower transition energy levels of chromium. Through the internship, I gained experiences with equipment operation for EBIT-I and crystal spectrometers, observation and data collection for x-ray emissions, and software data analyzation. The collaboration between scientists also allowed me to contribute in scientific research to conclude that the polarization is not the solution towards the Fe XVII emission problem. These experiences and opportunities helped me to recognize how to enrich the physics curriculum in Hawaii, specifically at Waipahu High School, by teaching and engaging the students with modern scientific advancements. This work was performed under the auspices of the Department of Energy by LLNL under Contract No. DE-AC52-07NA27344.

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