

Abstract Submitted  
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**Computational Infrastructure and Nuclear Data Activities for Nuclear Astrophysics at Oak Ridge National Laboratory**<sup>1</sup> C.D. NESARAJA, M.S. SMITH, D.W. BARDAYAN, J.C. BLACKMON, E.J. LINGERFELT, J.P. SCOTT, Oak Ridge National Laboratory, K. CHAE, Univ. of Tenn., R.L. KOZUB, Tenn. Tech. Univ., J.S. THOMAS, Rutgers Univ., R.A. MEYER, RAME — A **Computational Infrastructure for Nuclear Astrophysics** has been developed to enable rapid incorporation of the latest nuclear physics data in astrophysics models. The infrastructure is a platform-independent suite of computer codes and is available online at **nucastrodata.org**. The user-friendly interface enables users to easily upload their data, create reaction rates, easily access and manage libraries of cross sections and rates, perform simple data evaluation tasks, run element synthesis calculations, and visualize them with animations. The suite's new features and its utilization for nova and X-ray burst modeling will be discussed. Other nuclear data activities at ORNL include evaluating properties and reactions of unstable nuclei being measured at ORNL's HRIBF. Reactions with radioactive beams of  $^{18}\text{F}$ ,  $^{82}\text{Ge}$ , and  $^{84}\text{Se}$  are among those being studied. A survey of evaluation results and plans for additional work will be presented.

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