

Study of Vacuum Pumping and Outgassing of Non-Evaporable Getters

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Non-evaporable getters (NEGs) are compact and passive vacuum pumps that are widely used in accelerator vacuum systems, for both localized and distributed pumping. For the vacuum system design for the Cornell ERL-based light sources, it is crucial to fully characterize the vacuum properties of various types of NEGs. In this study, we investigate ultimate pressure can be achieved via NEGs, the NEG outgassing, thus establish best approaches to activate NEGs during vacuum system operations, and to passivate the NEGs for venting.