

## **ITER Pellet Injection System - Vacuum Technology\***

L.R. Baylor<sup>1</sup>, S.K. Combs<sup>1</sup>, S.N. Meitner<sup>1</sup>, T.C. Jernigan<sup>1</sup>, D.A. Rasmussen<sup>1</sup>  
E-mail: baylorlr@ornl.gov

<sup>1</sup>*Oak Ridge National Laboratory, Oak Ridge, TN, USA*

Plasma fueling in ITER will primarily be accomplished through the injection of solid deuterium tritium mixture pellets. The pellet injection system for ITER is being developed at Oak Ridge National Laboratory to provide the necessary core pellet fueling. Here we present progress on the development of the pellet technology to provide reliable high throughput inner wall fueling, with a particular emphasis on the vacuum technology needed for this system. The large amounts of tritium and the need to recirculate both the fueling gas and the gas gun propellant gas within the system present unique challenges in the design of the overall system. The types of pumps to be used will be discussed as well as their expected performance and tritium handling capabilities.

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