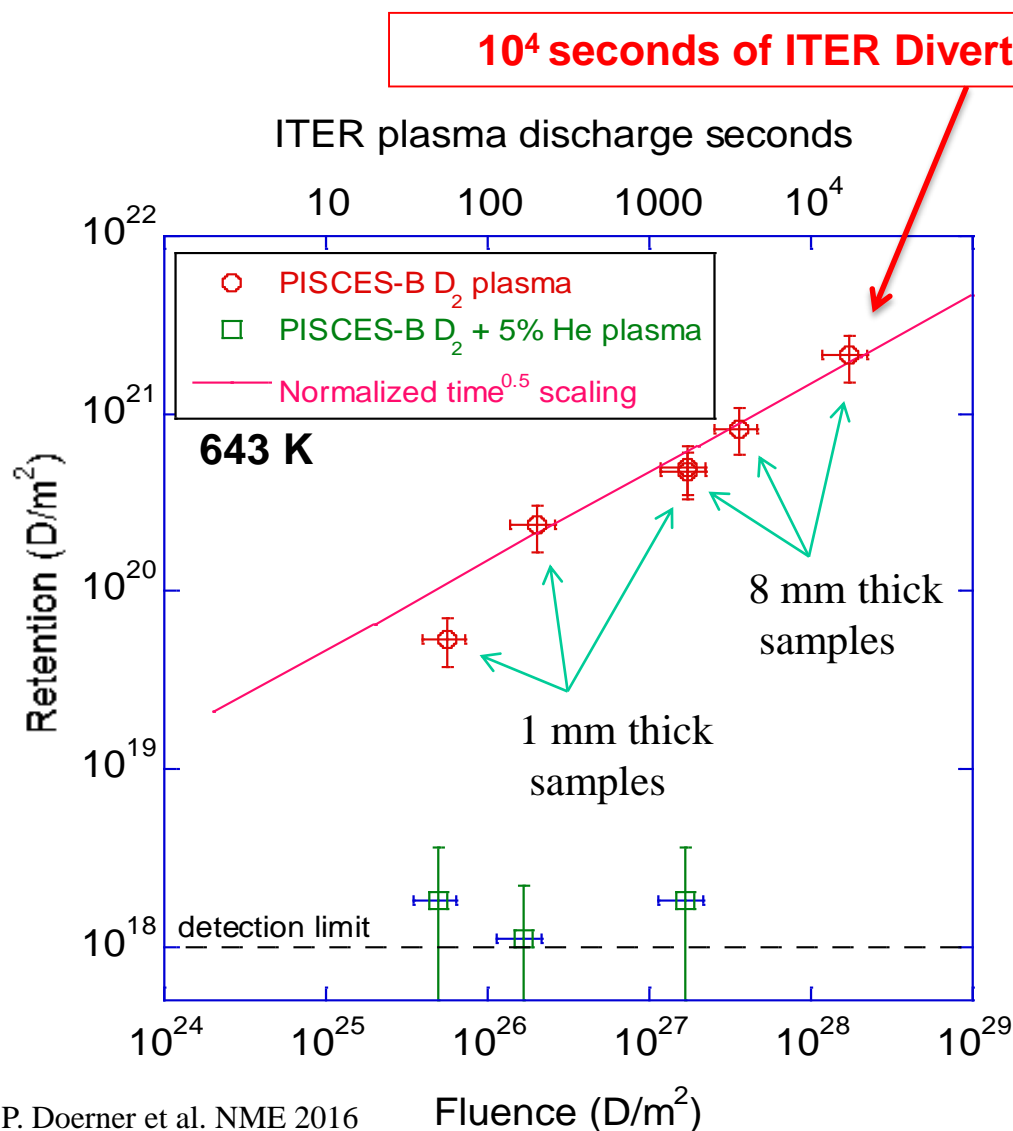


# PISCES-B operated continuously for 31 hours to generate data at a world-record fluence of $2 \times 10^{28} \text{ m}^{-2}$

PISCES

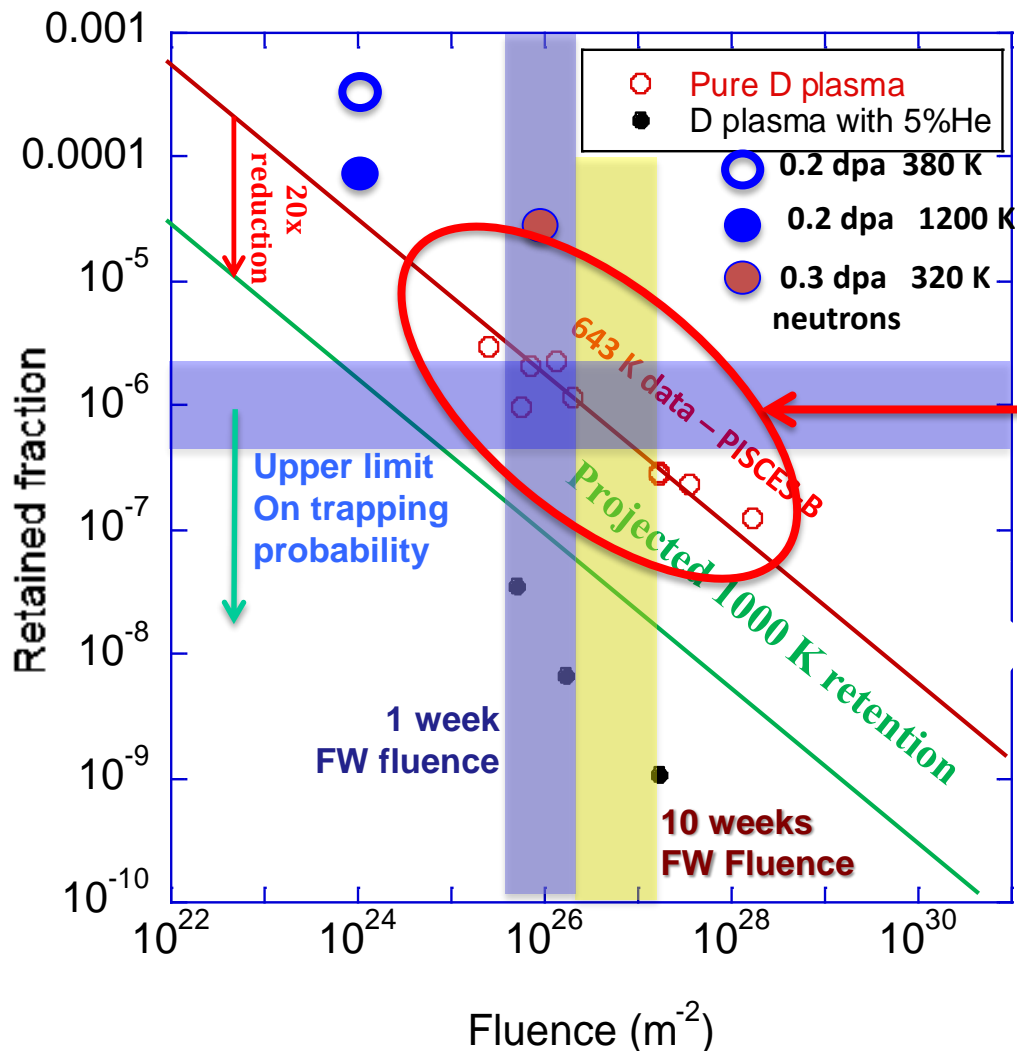


- **No saturation in D retention in W with high-fluence deuterium plasma exposure**
- **5% He<sup>+</sup> flux during deuterium plasma exposure drastically reduces D retention in W at 643 K**

# Tritium self-sufficiency requires a retained fraction of less than $\sim 10^{-6}$ , which has been achieved at high fluence in undamaged samples

PISCES

Tynan, PSI, Rome, 2016 submitted



Motivates  
Higher Plasma Fluence  
Ion Beam Damaged  
AND  
Neutron Irradiated  
Sample  
Experiments