

Abstract Submitted  
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**The cooling of Xenon in LIFE chamber**<sup>1</sup> MARCEL KLAPISCH<sup>2</sup>,  
MICHEL BUSQUET<sup>3</sup>, ARTEP, Inc. — In the Inertial Fusion Energy project LIFE,  
the chamber will be filled with Xenon gas, in order to protect the walls from debris,  
radiation, and particles. The frequency of laser shots is estimated to be 5 - 10 Hz.  
It is crucial that the gas has time to cool down between shots, otherwise the walls  
would overheat and get damaged. Recently described “Anomalous” photo-ionization  
of the 4d electron shell [1], plays an important role in that process. Time history  
of Te, Tr, and Ne from a new algorithm implemented in a time dependent version of  
HULLAC [2] will be presented.

[1] Klapisch, M. and Busquet, M., *High Ener. Dens. Phys.* **9**, 428-34 (2013).

[2] Klapisch, M., Busquet, M., and Bar-Shalom, A., *AIP Conference Proceedings*  
**926**, 206-15 (2007).

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