

Abstract Submitted  
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**Study of near critical point states of tantalum and lithium by pulse heating under launching.**<sup>1</sup> VLADIMIR TERNOVOIT, DMITRY NIKOLAEV, SERGEY KVITOV, ALEXEY PYALLING, VLADIMIR FORTOV, IPCP RAS — The near critical point states of the liquid-vapor phase transition of tantalum and lithium were investigated. The heating of tantalum foil samples in 1-D geometry was carried out by multiple-shocked He from back side of the tantalum foil and heating of lithium - by shocked He from the front side under dynamically created isobaric conditions. The temperature of sample was measured by fast 6-channel optical pyrometer. The pressure was obtained from measured shock velocity in He using stepped transparent window. Two sets of experiments with various history of heating were carried out, allowed to evaluate the critical point location of the studied metals in P-T plane.

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