

Abstract Submitted
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Investigation of Near Critical Point States of Molybdenum by Pulse Heating under Launching DMITRIY NIKOLAEV, ANDREY EMELYANOV, VLADIMIR TERNOVOI, ALEXEY PYALLING, VLADIMIR FORTOV, IPCP RAS — The near critical point states (NCPS) of the liquid-vapour phase transition of molybdenum were investigated. The heating of molybdenum foil samples in 1-D geometry was carried out by multiple-shocked He from the back side of the sample under dynamically created isobaric conditions [1]. The temperature of sample was measured by fast 4-channel optical pyrometer. The pressure was obtained from shock velocity in He, measured by streak camera on the step on transparent window. Two sets of experiments with various history of heating were carried out, allowed us to evaluate spinode and binode lines, and the position of critical point on $P - T$ plane: $T_c = 12500 \pm 1000$ K, $P_c = 1 \pm 0.1$ GPa. Work was supported by ISTC grant 2107, RFBR grant 04-02-16790.

- [1] V.Ya.Ternovoi, V.E.Fortov et.al. High Temp.-High Pres. 2002, v.34, pp.73-79
[2] D.N.Nikolaev, A.N.Emelyanov et.al. in: SCCM-2003, AIP conf. proc. 706, ed.by M.D.Furnish, Y.M.Gupta et.al, pp.1231-1234

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