

# INTERACTION OF LASER RADIATION WITH STRONGLY COUPLED KRYPTON AND LIQUID XENON PLASMA

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A warm dense matter characterized by a strong interparticle interaction is an object of research that is of great interest both from the point of view of fundamental science and from the point of view of practical use. To date, the methods of quantum mechanics and statistical physics allow us to correctly describe the behavior of a medium having low or very high densities of matter in the case when the interaction of particles is not too large. The description of a substance in the intermediate range of parameters encounters significant difficulties. In this situation, the results of physical experimental studies acquire special value, playing the role of a criterion for determining the accuracy and applicability of theoretical models or used to select the numerical parameters of the corresponding functional dependencies.

The results of new experiments on the reflectivity of polarized light from non-ideal plasma of krypton and liquid xenon are presented. The plasma was investigated by the method of oblique probing. The composition and thermodynamic parameters of the plasma were determined using the modified Saha IV code [1].

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1. Gryaznov V. K., Iosilevskiy I. L. and Fortov V. E. // AIP Conf. Proc. 2012. V. 917 P. 1426.