

STUDY OF THE EXCITON CONDENSED PHASE IN 2D SYSTEMS

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S u m m a r y

A theory of exciton condensed phase formation in 2D systems is developed with regard for the temperature of a system and different lifetimes of free excitons and excitons in the condensed state. It is shown that the condensed phase in 2D systems consists of exciton islands. The mean radius of such an island increases with both lifetimes, the exciton creation rate, the temperature of a system, and the surface energy of condensed excitons. The dependence of the mean radius of 2D condensed islands on the lifetime, temperature, exciton creation rate, and mean distance between exciton islands is presented.