

NEW OPTIMAL SCHEMES OF LASER  
PHOTOIONIZATION TECHNOLOGIES  
FOR CLEANING THE SEMICONDUCTOR  
MATERIALS AND PREPARING THE FILMS  
WITH ESPECIALLY PURE COMPOSITION  
AT ATOMIC LEVEL

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S u m m a r y

New optimal schemes for the laser photoionization technology for control and cleaning the semiconductor substances and preparing the films with pure composition at the atomic level and the schematic diagram of a new corresponding equipment are presented. The computer modeling of the optimal scheme for preparing the films with pure composition with a possibility to create 3D heterostructural superlattices (layers of  $\text{Ga}_{1-x}\text{Al}_x\text{As}$  and GaAs) is carried out.