

HIGH ENERGY DENSITY PHYSICS EXPERIMENTS WITH INTENSE HEAVY ION BEAMS*

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Intense beam of energetic heavy ions is an excellent tool to create large samples of high energy density (HED) matter with fairly uniform physical conditions. This paper presents an overview of the current experimental research that has been done at GSI-Darmstadt in the field of heavy-ion beam generated HED matter. Special attention is given to the most recent experiments at GSI with an emphasis on developed ion-beam and target diagnostic techniques as well as on new target designs for such experiments. Some prospects on the future work planned at GSI in this direction are also discussed.

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