

533. Title:Experimental study on GaP surface damage threshold induced by a high repetition rate femtosecond laser

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Abstract:The surface damage threshold of undoped bulk h110i GaP induced by a high repetition rate femtosecond pulse at 1040nm with a duration of 61 fs was studied. The threshold value was obtained by a linear fit of the incident single pulse fluence and was confirmed with a breakdown test around the threshold level. The result will be useful in high intensity, high repetition rate laser applications and ultrafast processes.