

Matthew Parsons, Mechanical Engineering

Year in School: Senior

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Funding Source: College of Engineering Honors Undergraduate Research Option

Analysis of laser-irradiated silicon crystal using x-ray topography

A silicon crystal was irradiated with an ultrafast laser with different peak fluences. The damage caused by the laser is being characterized by x-ray topography measurement made with synchrotron radiation and a digital area detector. This project examines various means of characterizing the damage produced, in order to help understand the interactions between an ultrafast laser and a semiconductor.