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# Time Resolved Opacity Maps of Warm Dense Titanium

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Measurements of photon absorption as a solid turns into a plasma were taken and will be studied (Warm Dense Model). A femtosecond IR laser was used for isochoric heating. The changes in absorption are measured by an independent XUV probe pulse that allows for 50fs temporal resolution and a CCD is used for spatial resolution as well. A drop in opacity is found, at first glance consistent with theoretical predictions. A 2D map of the opacity was obtained for each shot, for the first time, significantly increasing the amount of data available to constrain the competing plasma and "hot condensed matter models" in this region.

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