



DCS Experimental Information Collection Form  
 Laser Shock Experiment

**Experimental Overview**

<b>Experiment Title:</b>
<b>Experiment Dates:</b>
<b>Lead Experimenter</b> Name, Institution, Email:
<b>Additional Experimenters</b> Name, Institution, Email:
<b>Scientific Objective:</b>
<b>Number of experiments</b> required to achieve scientific objective:
<b>List of Material(s) and Equipment:</b>

**Experimental Parameters**

<b>Experimental Parameter</b>	<b>Experiment Selection</b>
<b>Configuration</b> Please be open to discuss alternative energies during the conference call.  (Configuration change with spectral scan = approx. 6-8 hours)	<b>Undulator and Multilayer Monochromator (MLM):</b> <input type="checkbox"/> U14, 22 KeV, with MLM; <input type="checkbox"/> U23, with MLM <input type="checkbox"/> 35 KeV; <input type="checkbox"/> 48 KeV; <input type="checkbox"/> Other: _____
<b>Detector Configuration</b> (Detector swap = approx. 2 hours) (Detector distance change = approx. 1 hour)	<b>Detector Type:</b> <input type="checkbox"/> Gd <sub>2</sub> O <sub>2</sub> S; <input type="checkbox"/> CsI  <b>Detector Distance:</b> <input type="checkbox"/> As close as possible (~100 mm, standard); <input type="checkbox"/> Other: _____
<b>Diffraction Geometry</b> (Change in Geometry = approx. 1 day)	<input type="checkbox"/> See attached Configuration Diagram (standard); <input type="checkbox"/> Other: _____ (attach drawing)
<b>Target Design</b> Calculate x-ray attenuation from the sample and window and optimize thickness accordingly.	<b>Range of Sample Thickness:</b> _____ μm  <b>Ablator Thickness:</b> _____ μm <input type="checkbox"/> Al-coated Kapton; <input type="checkbox"/> Other: _____



	<b>Interferometry Window:</b> <input type="checkbox"/> LiF; <input type="checkbox"/> None; <input type="checkbox"/> Other: _____ Thickness: _____ mm
<b>Velocimetry</b> Dual Axis Line VISAR with PDV VPFs range between 0.5 and 3 km/s/fringe  (Change of axis orientation = approx. 2 hours)	<b>Line VISAR</b> <b>Axis Orientation:</b> <input type="checkbox"/> Orthogonal (standard); <input type="checkbox"/> Parallel; <input type="checkbox"/> Other: _____ <b>Field of View:</b> <input type="checkbox"/> 350 $\mu\text{m}$ ; <input type="checkbox"/> Other: _____ <b>Sweep Range:</b> <input type="checkbox"/> 20 ns (standard); <input type="checkbox"/> Other: _____ <b>Slit Width:</b> <input type="checkbox"/> 150 $\mu\text{m}$ ; <input type="checkbox"/> Other: _____
<b>Details of issues from last DCS visit:</b>	

### Useful Target and Configuration Detail

<b>Attachment One:</b> Drawing of any non-standard experimental configuration that includes sample plane, x-rays to drive laser angle, detector plane, detector distance and the desired field of view.
<b>Attachment Two:</b> Detailed drawing of the targets. It should identify the various target components and materials used. Please include any non-standard details or unusual requests in the diagram.
<b>Attachment Three:</b> If the sample has been previously studied at DCS, please provide ambient x-ray diffraction images (and dates of previous campaign). If not, have ambient diffraction pattern ready from other sources or from simulation.

### Shipping & Publication Requirements

<b>Shipping:</b> Review <a href="#">shipping requirements</a> . If shipping materials in advance of your arrival date, provide shipment tracking numbers to <a href="mailto:dcs.admin@wsu.edu">dcs.admin@wsu.edu</a> .
<b>Is your shipment greater than 50lbs or contains hazardous materials?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Publications:</b> Review <a href="#">publication requirements</a> for all work conducted at the DCS. Users are expected to publish results in peer-reviewed journals within a reasonable period (~1 year) after scheduled experiment time.
<b>Indicate the anticipated timeline for publishing results from your upcoming DCS experiments:</b>



### Standard Configuration Diagram

