



DCS Experimental Information Collection Form  
 PCI - Plate Impact 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**

<u>Experimental Parameter</u>	<u>Experiment Selection</u>
<b>X-ray Configuration:</b> White Beam Approx. Size: 2 mm vertical, 3 mm horizontal	<b>Undulator:</b> <input type="checkbox"/> U14 (standard) <input type="checkbox"/> U23
<b>Detector Configuration:</b> 2 to 8 total cameras where each camera can be either a 2048 or 1024i PI-Max 4.  FOV of 1024 is square where the value listed is a side. FOV of 2048 is circular where the value is approx. the radius. Pixel Size <sub>1024i</sub> = Pixel Size <sub>2048</sub> = 13 μm  (Camera config change = approx. 3 hours) (Magnification change = approx. 1 hour) (Scintillator change = approx. 2 hours)	<b>Cameras:</b> <input type="checkbox"/> 8x 2048 cameras, 8 frames (standard) <input type="checkbox"/> 8x 1024i cameras, 16 frames <input type="checkbox"/> Other: _____  <b>Magnification (FOV):</b> <input type="checkbox"/> 5x (2.5mm); <input type="checkbox"/> 7.5x (1.7mm); <input type="checkbox"/> 10x* (1.3mm) <i>*10x uses NUV objective; improves SNR by 60%</i>  <b>Scintillator:</b> <input type="checkbox"/> LYSO (standard) <input type="checkbox"/> LaBr3
<b>Imaging Geometry</b>	Gun Angle: <input type="checkbox"/> 0° (standard) OR <input type="checkbox"/> _____ Detector Distance: <input type="checkbox"/> 1 meter (standard) OR <input type="checkbox"/> _____
<b>Is target rotation about the barrel axis needed?</b> ±10° range of motion (Installation time = approx. 1 hour)	<b>Select one:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No



<b>Timing Trigger:</b> 1.2 $\mu$ sec from trigger to 1st frame	<input type="checkbox"/> TOBB (trigger at 50% transmission) <input type="checkbox"/> PZT (must fully contact within impactor radius)
<b>Velocimetry</b>	<input type="checkbox"/> <b>User supplied probes</b> - Describe probes: <hr/> <input type="checkbox"/> <b>VISAR</b> (1 probe) Available VPFs (m/s/fringe); select two: <input type="checkbox"/> 72 <input type="checkbox"/> 95 <input type="checkbox"/> 181 <input type="checkbox"/> 308 <input type="checkbox"/> 458 <input type="checkbox"/> 945  <input type="checkbox"/> <b>PDV</b> - Number of Probes: _____ <input type="checkbox"/> Homodyne <input type="checkbox"/> Heterodyne Reference Beam Frequency Shift: <input type="checkbox"/> +6 GHz (standard) <input type="checkbox"/> Other (-1 GHz to +8 GHz): _____
<b>Details of issues from last DCS visit:</b>	

**Useful Target and Configuration Detail**

<b>Attachment One:</b> Drawing of experimental configuration that includes sample assembly, x-rays to gun angle, detector plane, detector distance and the desired field of view.
<b>Attachment Two:</b> Detailed drawing of the target assembly. It should identify the various target components and materials used. Please include any non-standard details or unusual requests in the diagram. Include any relevant distances/indicators to locate the sample position while aligning the sample using x-rays, for example sample edges/thickness and their distances from target plate/spacers).

**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>