

**Short Proposal Form
Matter in Extreme Conditions**

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| **Proposal information** |
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| **Proposal type** | Data Set Collection (Rapid Access/Screening not available) |
|  | *For more information regarding the different proposal types, visit:* [*https://lcls.slac.stanford.edu/proposals/modes-of-access*](https://lcls.slac.stanford.edu/proposals/modes-of-access) |
|  |
| **Descriptive experiment title** |    |
|  | This title *will be made public* if you are awarded beamtime. Maximum of 150 characters. |
|  |
| **Is this experiment related to one or more LCLS proposals that have been previously submitted or accepted?** |  |
|  | Select... |
|  |
| → If previously accepted, list experiment number(s): |   |
|  |
| **Spokesperson** |
|  |
|   |  |   |  |   |
| Name | Institute | E-mail address |
|  |
| **Experimental team** |
|  |
| 1 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Description of relevant previous experience (e.g., data collection at a synchrotron) |
| 2 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 3 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 4 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 5 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 6 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 7 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
| 8 |   |  |   |  | Select... |
|  | Name | Institute | Main experimental role |
|  |   |
|  | Relevant previous experience |
|  |
|[ ]  The experimental team has more than 8 team members. |
|  |
|[ ]  We need help from LCLS staff for data analysis.  |

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| **Scientific case** |
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| **Briefly explain the scientific significance or importance of the proposed experiment. Also provide a brief justification that significant new results are likely from a limited number of shifts.** |
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|                                    |
| Avoid broad discussion. Maximum of 3500 characters (including references, if applicable). |
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| **Specific aims and questions to be answered** |
|  |
|       |
| Maximum of 500 characters.  |
|  |
| **Why is LCLS required for this experiment? Why now?** |  **Supportive figure (optional)** |
|  |
|                 | A white square with a blue border  Description automatically generated |
| *Maximum of 500 characters.* |  |
| **Experimental details** |
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| **Target description (composition of all layers for each proposed target)(if applicable)** |
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| **X-ray parameters** |
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| X-ray energy (keV): |   |
|  | Add range of photon energies (when possible) to help identify multiplexing opportunities. Prioritize multiple photon energy needs. |
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| Preferred X-ray focal spot size (5 µm – 100 µm): |   |
|  |
| **Optical beam parameters** |
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| Pulse energy: |    |
|  | Limited to 10 J / ns of pulse duration. Prioritize multiple pulse energy needs. |
|  |
| Pulse shape: |    |
|  | E.g., 10 ns flat top, 20 ns long with 10% gradient. Prioritize multiple pulse shape needs. |
|  |
| Pulse shape sketch: *(optional)* | A white square with a blue border  Description automatically generated |  |
|  |
| Laser spot size: | Select... |
|  |
| **Required number of beam time shifts** |
|  |
|    |
| Recommended 1 to 2 shifts max.; 1 shift = 12 hours of beam time. |
|  |
| **Comments** |
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|       |
| E.g., any timing requirement beyond 100 ns delays, any unusual etalon thickness needs. |