

**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... | | | | |
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| → If previously accepted, list experiment number(s): | | | | | | | |  | | | | |
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| **Spokesperson** | | | | | | | | | | | | |
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|  | | | |  |  | | | |  |  | | |
| 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 | | | | | | | | | | | |
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|  | The experimental team has more than 8 team members. | | | | | | | | | | | |
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|  | 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** | | | | |
|  | | | | |
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| 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): | |  | | |
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| **Optical beam parameters** | | | | |
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| Pulse energy: |  | | | |
|  | Limited to 10 J / ns of pulse duration. Prioritize multiple pulse energy needs. | | | |
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| 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... | | | |
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| **Required number of beam time shifts** | | | | |
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| Recommended 1 to 2 shifts max.; 1 shift = 12 hours of beam time. | | | | |
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| **Comments** | | | | |
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| E.g., any timing requirement beyond 100 ns delays, any unusual etalon thickness needs. | | | | |