**Proposal Application Template**

**[General Proposals and Graduate Student Proposals**

**Intended to Be Reviewed in Industrial Application Field]**

**Use this template for the purpose of drafting your proposal application details. Copy every item in this form and paste it in the application e-form online.**

**Please check if your proposal is “Complementary Use Program”**

**[PAGE 1: Basic Information]**

1. Term (required) \*The available beamlines vary depending on the proposal type and the term.

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2. Title of Experiment (required) (70 word limit)

If you are new to SPring-8 as a user, please add [new user] at the end of the title of experiment.

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3. Review Field (Method)

 •[Table of Review Field](http://user.spring8.or.jp/ui/wp-content/uploads/reviews_e.pdf)

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| Group: Please select “Industrial Application.” | Subgroup:1:  | Subgroup2: |

4. Beamline / Equipment (Select from the "[Table of Equipment](http://user.spring8.or.jp/ui/wp-content/uploads/equipment.pdf)")

If you are unsure as to which beamline is best suited to your research, please contact the Industrial Application and Partnership Division (support@spring8.or.jp).

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|  | Beamline | Equipment |
| 1st Choice(required) |  |  |
| 2nd Choice |  |  |
| 3rd Choice |  |  |

5. Research Area

 • Research Area (Select from the "[Table of Research Areas](http://user.spring8.or.jp/ui/wp-content/uploads/research_area_e.pdf)")

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| --- | --- | --- |
| Group(fixed) | Subgroup(required) | Comment for Other |
| Industrial Applications | (Select from the "[Table of Research Areas](http://user.spring8.or.jp/ui/wp-content/uploads/research_area_e.pdf)") |  |

 • Research Area Keywords (30 word limit)

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6. Number of Shifts Requested (required) (Justify the number of shifts by providing basis of the estimation at Item #12: How you calculated the overall beamtime requested.)

If you need assistance in calculating how many shifts are necessary for your research, please contact a respective Beamline Scientist.

\_\_\_\_ shift(s) x \_\_\_\_ run(s) + \_\_\_\_ shift(s) x \_\_\_\_ run(s) + \_\_\_\_ shift(s) x \_\_\_\_ run(s)

7. Operating Mode (required):

( ) any

( ) Equal interval mode (A-, B- or C- mode: not specifically)

( ) Specific mode required (Number in order of preference below.)

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| Mode (in order of preference: A, B, C, D, E, F, G, H)\* | 1 | 2 | 3 | 4 | 5 | Other: |
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\*The D- and E-modes are operated in research terms A only, while the F- and G-modes are operated in research terms B only.

(Please refer to the following link for the details: <https://user.spring8.or.jp/?p=15836&lang=en>)

 **[PAGE 2: Project Team Members]**

8. Project Team Members: User Card Number, Name, and Affiliation

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Note: Project team members, as well as you, must receive own accounts before being able to join a proposal. When you submit the Project Team Member list on the proposal application e-form, just fill in each of user card number of the members and let the auto-fill function of the e-form fill out names and affiliations of the members. In case you don’t know a user card number of your team member, you may want to search it by the name and affiliation using “User Search” button of the e-form page. But you must not able to find the member if he/she has chosen "Do not allow" to search the user information in his/her account settings at the user registration. Therefore, all users are strongly encouraged to choose "Allow." If needed, please ask your team members to change their account settings (Log in to My Page > “Edit My Details” link in the top right hand corner). The Project Team Members list can be changed even after your proposal has been approved for beamtime.

**[PAGE 3: Known Safety Hazards & Measures to Be Taken]**

9. Known Safety Hazards & Measures to Be Taken

9-1 Does your proposed research involve any of the following? 1〜5

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| ( ) None | ( ) High pressure gas cylinder from the outside of SPring-8/SACLA |
| ( ) Radioisotope |
| ( ) Radiation generator: installation, modification, change of purpose or specifications |
| ( ) Internationally controlled materials (nuclear source/fuel materials) |
| ( ) Installation of devices/equipment regulated by law |
| ( ) Chemicals regulated by law |
| ( ) Invasive alien species |
| ( ) Specified risk materials (SRM) from cattle |
| ( ) Prohibited imports regulated by the "Plant Protection Act" |
| ( ) Recombinant DNA |
| ( ) Human materials |
| ( ) High-energy laser system from the outside of SPring-8/SACLA |
| ( ) live animals (mammals, birds, or reptiles) |
| ( ) specific biological samples/biohazards (agents of biological origin that have the capacity to cause ill-effects in other organisms) |

1. If yes, you will be required to submit additional forms with your proposal application.
2. High-pressure gas manufacturing plant Local ventilation/gas supply and exhaust system Crane.
3. Chemicals regulated by law:

- Specific substances regulated by the "Act on the Prohibition of Chemical Weapons and Control of Specific Chemicals"

- Specified poisonous substances regulated by the "Poisonous and Deleterious Substances Control Law"

- Substances for which manufacturing is prohibited, asbestos, etc. under the "Industrial Safety and Health Law"

- Narcotics, stimulant drugs, hemp (gum), opium, and their raw materials, psychotropic drugs, and no dangerous substances of 1/5 or more in quantity specified by the "Fire Service Act"

1. Class 4, Class 3B and Class 3R lasers specified by IEC 60825-1 standard.
2. pathogenic microbes (incl. infectious nucleic acids, plasmids, prions), parasites, and the toxic substances, carcinogens, and allergens produced by them that can cause harm to humans, livestock, and farm/marine products.

9-2 What SPring-8 equipment would you like to use? (90 word limit)

If you wish to use the laser system installed in SPring-8, enter “SPring-8 Laser System.”

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7-3 Details of samples (required)

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| Name of Substance\*6 | State/Figure\*7 | Qty & Unit(SI)\*8 | Hazards\*9 | Purpose of Use\*10 | Containment measure and disposal method | Prevention of Hazards | Risk Level\*11 | Remarks |
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1. Use general names, structural formulas, or compositions (XAFS) and do not use abbreviations or acronyms.
2. Capillary (powder), cylinder (gas), plate (crystal), metal foil, tablet, bulk, etc.
3. SI Unit.
4. Poison, deadly poison, organic solvent, selected chemicals, dangerous goods, etc.
5. Sample, for measurement, for cleanser, for coolant, for tranquilizer, etc.
6. Risk assessment result. For details, click here (<http://user.spring8.or.jp/s/risk-assessment-e>). Choose “N/A” for chemical substances which are exempted from the regulation.

9-4 Equipment that you will bring to SPring-8

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| Equipment | Specifications\*12 | Safety measures |
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1. Voltage, ampere, pressure, temperature, etc.

**[PAGE 4: Abstract]**

10. Please provide all of the following information: (required) (1,200 word limit)

1. Value and its significance of the proposed research to a fundamental technology in industry.

2. Progress made so far by the project leader, expected goal of the proposed research, and measure of the achievement.

3. Strategy to achieve the goal and justification for the use of SPring-8 as a vital element in the strategy.

4. Role and responsibility of each participating organization (if the experiment is carried out by multiple organizations).

5. For a continuous proposal, describe the results of your previous experiment and the reason why the experiment is incomplete yet.

6. If you have never used SPring-8 before, enter [New User].

If you have any questions about the required information, please contact the Industrial Application and Partnership Division (support@spring8.or.jp).

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| The review subcommittee for Industrial Application will focus on the following points regarding the content of the item in the abstract of the proposal, “ Describe the significance, purpose, feature and expected results of the proposed research”.A. Industrial fields and businesses targeted by the proposed researchB. The technical problem to be solved through the proposed researchC. Significance of solving this technical problem in targeted industrial field or business(What contribution is expected to be made to targeted industrial field or business by solving this technical problem? What is the importance of this contribution?)D. Details of the research which the applicant has conducted to solve the targeted problems(What experiments have been conducted? What informations have been obtained from the experiments? What informations needed for solving the targeted problem are lacked?)E. Details of the information which you intend to obtain in the proposal, the reason why the information is necessary for solving the targeted problem, and how to solve the targeted problem by utilizing this informationF. The experimental plan to obtain the desired information and the reason why the desired information is expected to be obtained through the proposed experimental plan(What characteristics of the samples are needed to be measured? What data are expected to be obtained in the proposed experiments? What analysis of the data is required in order to obtain the desired information?)G. In the case where the proposal is to be carried out by more than one organizations such as industry-academia, industry-industry, and academia-academia, the role of each organization in the research of this proposal(Roles in the execution of the proposal and the policy to feedback the results of this proposal to the research plan/business of each organization)It is important for the review if the above points are clearly explained in the proposal or not. Furthermore, the referees who review your proposal are not necessarily experts in the research field of your proposal, because the review by the subcommittee for industrial application encompasses various research fields. We recommend that you make your applications understandable to researchers outside your field as much as possible.Please also note the followings.◯Points concerned for item F:・Please note that if the informations of samples (sample name, composition, etc.) are not specified clearly, the proposal will not be recognized as a non-proprietary proposal and may not be accepted.・We strongly recommend you to cleary explain the basis of selecting samples, specifying the characteristics of each sample and the information expected to be obtained by comparing the data of the samples. It should be effective to convince the referees of expected achievement of your proposal. Especially, in the case of the proposal to be required a large amount of machine time for measurements of a large number of samples, the point mentioned above should be important. Even if the number of samples is too large to describe in detail, we recommend you to describle the policy for selecting samples at least, so that it should make the validity of the experimental plan more persuasive.・In the case where you have never carried out the experiment planed in your proposal at the intended Beamline, you must contact the Beamline Scientist before submitting proposals, in order to plan the experiment checking its technical feasibility. If the experiment you planed has been carried out at the other beamline previously, there should be some technical problems in conducting the experiment because the features of the instruments of one beamline should be different from that of another. Also, even if it is in similar to experiments carried out by other users at the intended Beamline in the past, there can be technical problem to be considered to achieve the pupose of your proposal.◯Points concerned for item G:At least one person who belongs to an institution equivalent to an industry must be included. Please note that if the project leader is not a member of this private company or an industry-equivalent organization, and if the appropriate content of the information in this item G is not clearly indicated, the proposal may not be adopted as not meeting the criteria for review by the Industrial Application Subcommittee.Please contact Industrial Application and Partnership Division for consultation (support@spring8.or.jp) regarding application preparation. |

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11. Provide progress made regarding the proposed research, relationship with the proposal(s) approved in the past and with another proposal(s) being applied, if any, and your previous experience with similar experiments. (270 word limit)

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| If you have ever conducted research at SPring-8, provide differences in research methodology and/or business contribution between the previous and the present researches. |

**[PAGE 5: Experimental Details]**

12. Experimental details (required) (1,350 word limit)

1. Measurement method (e.g. X-ray diffraction, XAFS, etc.), equipment used for measurements, measurement conditions (e.g. X-ray energy, resolution, etc.), reasons for needs of them.

2. Name, shape, size, composition, concentration of the sample(s). If you wish to use multiple samples or multiple measurement conditions, justify the needs and describe the priorities of them.

If you have any questions about the required information, please contact the Industrial Application and Partnership Division (support@spring8.or.jp).

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13. Reasons for your choice of beamline. (required) (140 word limit)

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14. Energy/wavelength or Operating conditions required. (135 word limit)

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15. How you calculated the overall beamtime requested. (required) (900 word limit)

If you do not have enough experience using SPring-8 to calculate how many shifts are necessary, please contact Beamline Scientists.

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| If you are a new user, it is recommended that you anticipate number of shifts, typically 3 to 6, to be spent for optimization of measurement conditions and make the best guess of the total number of shifts. |

**[PAGE 6: Publication]**

16. List the project leader's publication(s) associated with the proposed research up to three (Place an asterisk next to the publications resulting from research at SPring-8.) and describe each within 50 - 290 words. (900 word limit)

 Publication (1) required

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| Refereed journals relevant to the proposal can be copied into the field from the "List of Refereed Publications Related to You."(ORCID iD)ORCID iD will be used to understand the project leader’s past research activities which is not directly related to the proposed research. If the project leader’s ORCID iD is available, please register it at Account Information. |

 Publication (2)

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 Publication (3)

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**[PAGE 6’: Ph.D. Advisor] (Graduate Student Proposals only)**

17. Information of advisor

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| User Card Number of Ph.D. Advisor |  |
| Name of Ph.D. Advisor | Automatically filled |
| Affiliation of Ph.D. Advisor | Automatically filled |

**[PAGE 6’’: Complementary Use Program\*]**

\* If applicable.

18. Complementary Use Facility (Check all applicable facilities.)

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|  | (Multiple selections allowed) |
| SACLA | □ |
| J-PARC MLF | □ |
| HPCI including the K computer / the supercomputer Fugaku | □ |

19. Abstract for Complementary Use (2,250 word limit).

 In the Complementary Use section of your online application form, please make sure to indicate that your proposal is intended for combined use of SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku. Specify research goals, why you require complementary use of facilities, expected results from complementary use of facilities, etc.

 In addition, please make sure to also state the following information regarding SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku applications.

 (a) If you have already carried out experiments at SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku, please state relevant information such as the facility’s name(s), dates of research, the proposal number(s), titles of the experiments, name/affiliation of project leader(s), and the research group name(s).

 (b) If you plan to apply for use of SACLA, J-PARC MLF or HPCI including the K computer / the supercomputer Fugaku at the same time as SPring-8, please state application information such as facility's name(s), dates of research, titles of experiments, name/affiliation of project leader(s) or research group name(s) (including those which are scheduled).

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**[PAGE 7: Attachments]**

20. File Upload (up to 3 files). Acceptable file formats are JPEG (.jpg/.jpeg), GIF(.gif), PNG (.png) only.

Do not upload files without file extensions. Each image should be no larger than 1MB in file size.