**Collaborative Development Statement of Research**

***Remove all instructional text (leaving the heading and tables) before generating your .pdf file. A four-page limit (including graphics) will be enforced. Safety Considerations and References may spill over to the fifth page. Use font no smaller than 11 point. Address each of the following sections. You are strongly encouraged to reference Proposal Writing Tips at*** [***http://neutrons.ornl.gov/users/tips***](http://neutrons.ornl.gov/users/tips)***.***

**Scientific Importance**

What scientific question are you trying to answer? State the primary scientific goal for work. Provide a brief statement on the scientific background and general importance of the research, including references to literature where appropriate. Explain why the experiment requires the use of neutrons versus other techniques.

**Expected User Community Benefit**

What are the long-term expected benefits of this work to the SNS-HFIR Community such as new instrumentation, new techniques, and new areas of research? Explain why the research and development work requires multiple cycles and how the work in each cycle is related.

**Resources**

What contribution(s) are you bringing to SNS-HFIR in support of the collaborative development proposal (financial, human, technical resources)? Indicate how and when the resources listed will be obtained, for example, in-house resources from your home institution, grants, etc. What resources and services are requested from SNS-HFIR for this work? Please state whether they are currently available or would have to be developed or acquired.

**Preliminary Work**

Provide results of preliminary work carried out using neutrons or other techniques and the relationship with your proposed experiment and development work. Include preliminary tasks, measurements, synthesis, structural characterizations, or calculations that were or will be done at your home institution or elsewhere in preparation for the proposed research and development project at SNS or HFIR.

**Project Scope and Milestones**

Fill in the Project Scope table below to concisely summarize your project.

1. Project Scope: Concisely state the overall primary scientific and technical development goals for the project. You must stay within the scientific scope of these goals for the duration of the project or subsequent cycles will not be awarded.
2. Milestones:
   1. List the instruments requested and an estimate of the expected measurement time. Include any alternate instruments on which some or all of the experiment could be carried out. Consultation with instrument scientists on those beam lines is required.
   2. List the scientific and technical development milestones for each year. What work will be needed between the cycles for success in the next cycle?
   3. State the estimated start date for each set of milestones. Subsequent cycles do not need to be concurrent, but all work must be completed within three years.

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| --- | --- | --- | --- |
| **Project Scope Table** | | | |
| **State Primary Scientific Goal:** | |  | |
| **State Primary Technical Development Goal:** | |  | |
| **Milestones** | | | |
| **Year** | **Instrument(s) and # of days needed** | **Milestones** | **Estimated Start Date** |
| Year 1 |  |  |  |
| Year 2 |  |  |  |
| Year 3 |  |  |  |

**Development Plan**

Clearly state the tasks for each technical development milestone listed in your scope. Provide as much detail about the tasks for each deliverable as you are able.

Year 1:

Year 2:

Year 3:

**Current Cycle Experiment Plan**

Clearly state the tasks for your first cycle experiments or measurements.

1. Provide the number, quality, and identity of the samples, and the sample environment and expected measurement time needed for each.
2. Include 1-3 sentences describing the methods you will use to analyze and interpret the data.
3. List any resources that you will use from your technical development deliverables.

**Safety Considerations**

(Not included in the four-page limit) Identify and discuss any recommended safety precautions, controls or procedures that ensure your experiment can be run in a safe manner while at SNS/HFIR.

**References**

(not included in the four-page limit)