SiC Detector Weekly Discussion

Xin Shi

2021.12.05

Before we start ...

- 欢迎吉林大学宋维民加入 ！ 👏

RD50 Funding Request

RD50-2019-02

- Example from CNM for 3D-SiC

RD50 funding request
- Call July 2019-

Title of project: *Proof of concept of 3D detectors fabricated in Silicon Carbide (SiC) semiconductor layers*

Contact person: S. Otero Ugobono, sofia.otero.ugobono@csic.es

RD50 Institutes:
1. CNM-Barcelona, S. Otero Ugobono, sofia.otero.ugobono@csic.es
2. PSI, M. Camarda, massimo.camarda@psi.ch
3. IFAE, S. Grinstein, sgrinstein@ifae.es
4. JSI, G. Kramberger, gregor.kramberger@ijs.si
5. IFCA, I. Vila, ivan.vila@csic.es

Request to RD50: *25.000€*
Total project cost: *50.000€*

Table 1. Planned Activities

Activity	Institute	Lead
Electrochemical-etching process	PSI	M. Camarda
Process/Detector	CNM	S. Otero Ugobono
Signal/timing performance simulations	JSI, CNM	G. Kramberger
TCT measurements	IFAE, JSI	S. Grinstein
TPA measurements	IFCA	I. Vila
Electrical characterisation	CNM	S. Otero Ugobono
Neutron irradiations	JSI	G. Kramberger
Timing measurements	JSI, IFAE	S. Grinstein

Project schedule:

The start and end months (M) of the activity with respect to the project start are given:

- Design (M1-M4).
- Optimisation of the electrochemical-etching process (M4-M12).
- Testing and signal simulations of unirradiated sensors (M12-M14).
- Neutron irradiations in high fluence range (M14-M16).
- Testing and signal simulations of irradiated sensors (M12-M24).

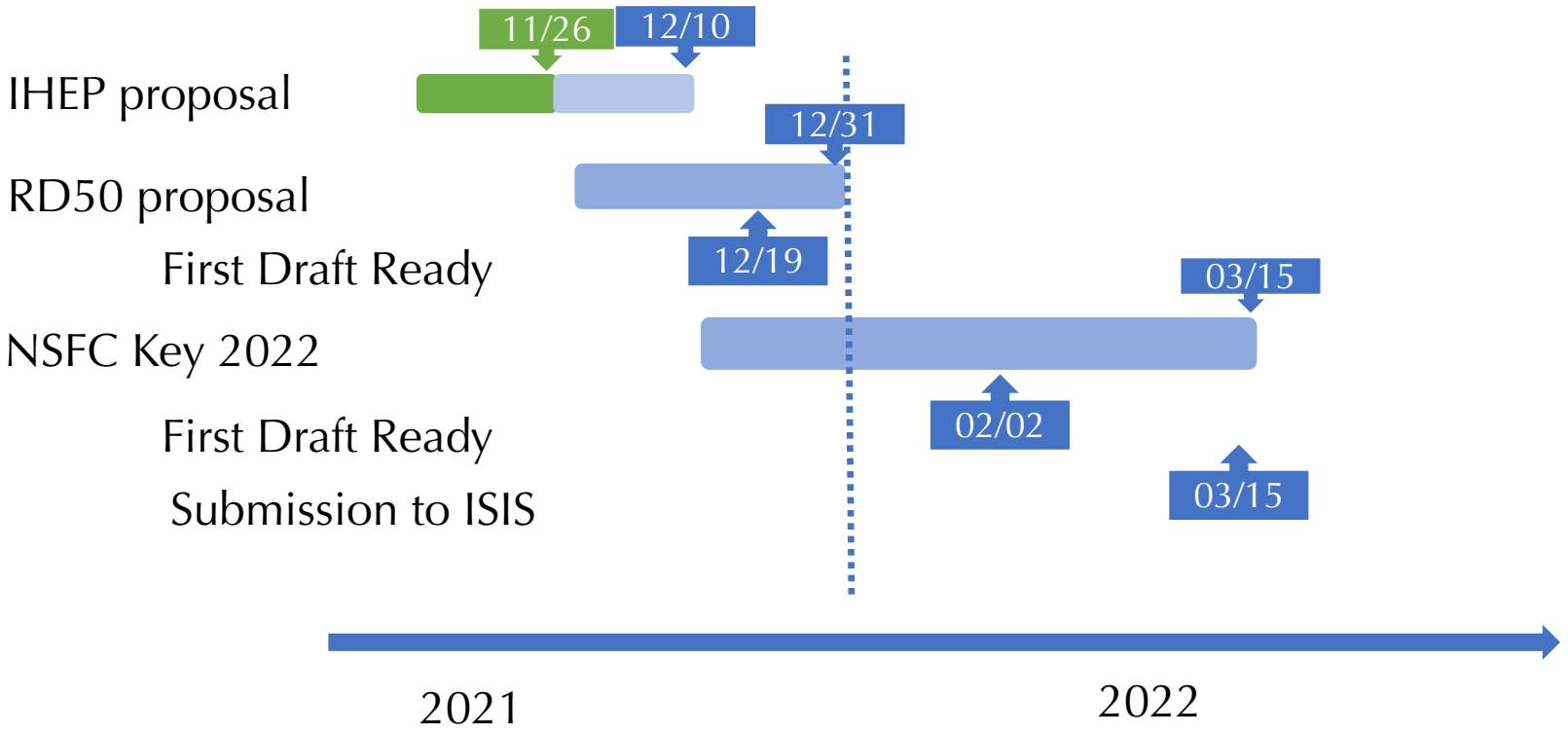
RD50 Funding Request – v1

- Title: 3D-SiC with laser … (see the attached file)

Activity	Institute	Lead
Detector / Timing measurement / Simulation	IHEP	X. Shi
Fabrication	DLUT	H. Liang
TCT/TPA measurement	JLU, IHEP	W. Song
Proton irradiations	IHEP/CSNS	X. Shi / R. Fan
Defect characterization	ShanghaiTech	X. Zou

- Fill the contents by next Sunday

Application Timeline



January 2022

	S	M	T	W	T	F	S
52	26	27	28	29	30	31	1
1	2	3	4	5	6	7	8
2	9	10	11	12	13	14	15
3	16	17	18	19	20	21	22
4	23	24	25	26	27	28	29
5	30	31					

February 2022

	S	M	T	W	T	F	S
5			1	2	3	4	5
6	6	7	8	9	10	11	12
7	13	14	15	16	17	18	19
8	20	21	22	23	24	25	26
9	27	28					

March 2022

	S	M	T	W	T	F	S
9			1	2	3	4	5
10	6	7	8	9	10	11	12
11	13	14	15	16	17	18	19
12	20	21	22	23	24	25	26
13	27	28	29	30	31	1	2