

**Muon Ordinary capture for the Nuclear Matrix eleMENTs in  $\beta\beta$  decays**

**MONUMENT**

Code of theme: **03-2-1100-2019/2021**

*Dzhelepov Laboratory of Nuclear Problems (DLNP JINR), Dubna*

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PROJECT ENDORSEMENT LIST

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NAME OF PROJECT LEADER: **Daniya ZINATULINA**

APPROVED BY JINR DIRECTOR

ENDORSED BY

JINR VICE-DIRECTOR

CHIEF SCIENTIFIC SECRETARY

CHIEF ENGINEER

HEAD OF SCIENCE ORGANIZATION DEPARTMENT

LABORATORY DIRECTOR





LABORATORY CHIEF ENGINEER

PROJECT LEADER

PROJECT DEPUTY LEADERS

ENDORSED

RESPECTIVE PAC

 25.04.2020  
 28.04.2020  
 20.04.2020  
 21.04.2020

**Schedule proposal and resources required for the prolongation of the Project**

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**MONUMENT**

Expenditures, resources, financing sources			Costs (k\$) Resource Require- ments	Proposals of the Labora- tory on the distribution of finances and resources		
				1 <sup>st</sup> yr	2 <sup>nd</sup> yr	3 <sup>rd</sup> yr
Expenditures	Target materials (enriched stable isotopes, holders for the target, target itself)		40	16	8	16
	Materials for the muon veto counters (scintillators, PMTs,WLS fibers, adapters, SiPMs, mechanics)		18	15	3	0
	Components and materials for R&D (optic glue, cables, connectors, instruments, etc.)		5	2	3	0
	HPGe detectors		130	75	55	0
	Electronics for the DAQ (VME- and NIM-crates and devices, PC and additional hard disks for data)		34	20	12	2
	Total		227	128	81	18
Required resources	Standard hour	Resources of				
		– Laboratory design bureau	300	100	100	100
		– Laboratory experimental workshop	600	200	200	200
Financing sources	Budgetary resources	Budget expenditures including foreign-currency resources.	227	128	81	18
	External resources	Contributions by collaborators.	20	10	5	5
		Grants (these funds are not currently guaranteed)	15	5	5	5

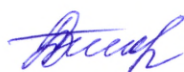
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**Estimated expenditures for the Project**  
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NN	Expenditure items	Full cost	1 <sup>st</sup> yr	2 <sup>nd</sup> yr	3 <sup>rd</sup> yr
	Direct expenses for the Project				
1.	Computer connection	\$ 6 k	2	2	2
2.	Design bureau	300 std hours	100	100	100
3.	Experimental Workshop	600 std hours	200	200	200
4.	Materials	\$ 63 k	33	14	16
5.	Equipment	\$ 164 k	95	67	2
6.	Transportation of equipment	\$ 30 k	10	10	10
7.	Collaboration meetings and workshops	\$ 15 k	5	5	5
8.	Travel allowance, including:	\$ 100 k	35	35	30
	a) non-rouble zone countries	\$ 100 k	35	35	30
	b) rouble zone countries	-	-	-	-
	c) protocol-based	-	-	-	-
				-	
	Total direct expenses:	\$ 378 k	180	133	65

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LABORATORY CHIEF ENGINEER-ECONOMIST

