



The Group for the Upgrade of ISOLDE

Target R&D - LOIs & IS Experiments

LOIs & IS Experiments: Requirements of Letters of intent and improvements for approved INTC experiments.

Target	Beam	Isotopes	Exp.		Time needed	Comments	Online	Offline	Responsible	User Exp. Contact	Status
Pb UCx	n-rich Hg, Tl	²⁰⁷⁻²¹⁰ Hg ²⁰⁸⁻²¹⁴ Tl	IS46 3	ISOLTRA P		Cs, In and Fr contaminants Quartz line	X	X	TISD	S. Kreim	Phase II Underway
UC _x – HP (molecule) ThO – LIS (neutral)	n-rich Te	^{132, 134, 136} Te	IS41 1 IS41 5	REX REX		# Neutral vs. molecular beam. # RILIS (scheme to be tested...)		X	Köster	Kröll Speidel Roussièr e	Stand-by Thermochr. Te RILIS scheme Materials

						# Quartz transfer [Cs retention].					
UC _x – W + CF ₄	n-rich Ba n-rich Sr	¹⁴⁴ Ba	IS41 1 IS52 3	REX REX	Online test	Test BaF ⁺ production and breaking of molecules in REX	X		REX	Krücken Clément	Stand-by Test online 2007
Y2O3 VD5	several	⁴⁸ Cr, ^{56,57} Co ⁷⁵ Se, ⁷⁷ Br	IS45 0 IS45 3 IS48 7 IS49 2 IS50 1	SSP		beam purity		X	A. Gottberg	Correia	Underway
Pb/Bi loop	Hg, (Cd if molt Sn, Ne/C if molt NaF)	n-def	IS47 7 IS49 0 IS52 1			diffusion chamber/time cst	X	X	T. Stora	EURISO L.P.O.	Underway 2016
LaC _x /molten La-surf +CF ₄	Ba as BaF ⁺	113-118Ba	IS54 5	Saha Inst.		Beam intensity/purity	X	X	T. Stora	U. Datta Pramanik	Stand-by
tbc	n-rich Po	211m,212m Po	IS45 6			tbc					Stand-by

nanoY2O3, ZrO2, RILIS	n-def Te	¹¹⁸ Te	IS51 6			Beam intensity/puri ty	x	x	A. Gottberg		Stand-by
nanoUCx- VD7	n-rich Ar	46-48Ar	IS49 0			Beam intensity	x	x	JP Ramos		Phase II Underwa y
UCx, ThCx		150-152Cs	IS57 9								In pipeline
UCx, LIST, NIS	n-rich Po	211m,212m Po	IS45 6								
No Ucx : ThO2, molecular?	n-rich Sc		IS53 2								
UCx + VADIS +CF4	Hf		IS53 7								
UCx + VADIS+S34+n -conv	¹³² S n	¹³² Sn ¹²¹ - ¹³⁶ Sn	IS59 5 IS57 3								
ZrO+VADIS+C O as SeCO Ge as GeS+		⁶⁸ Se ⁷⁰ Se ⁷² Se ⁶⁴ - ⁶⁶ Ge	IS59 7 IS56 9 IS57 0								In pipeline
NanoUCx		¹³³ - ¹³⁵ In	IS61 0	IDS		Intensity					
		^{71,72,74} As, ⁷³ S e, ⁸⁴ Rb, ^{117m} Sn, ^{200,203} Pb or ²⁰³ -	IS52 8								

		^{206}Bi , ^{211}At and ^{211}Rn									
	At and Po		IS61 5								
		$^{26-33}\text{Al}$	IS61 7								
UC _x – MK5	Ge beam s	$^{78,80,82}\text{Ge}$	I58	REX		LoI February 2005 <i>GeS molecules</i>	X	X	REX	Stefanesc u	On hold
Negative ion sources LaB ₆ molecular BaCl ₂ , etc	Br Cl I, At?	^{82}Br , ^{83}gBr ^{70}Br n-rich Cl, ^{43}Cl	I543 I159 I78	NICOLE Decay spec.	2/3 weeks GPS	Change of polarities [ok] Comparison of negative sources KENIS, materials...	X	X	TISD Catherall	Severijns Blank	Stand-by Test of new materials
	S	^{30}S	I71	Decay Spec.		together with ISCOOL	X	X	ISOLDE	Blank Delahaye	Stand-by

Last update: June 30, 2016 - [TS](#)