

# GUI requests/possibilities for 2017: physics

Running period: 24<sup>th</sup> April – 20<sup>th</sup> November 2017

HIE – ISOLDE from ~ end of June

Interleave HIE with low energy runs

Beam requests being submitted this week; Preliminary planning in the next.

## Outstanding requests/tests (expect some in 2017)

- P448: Miniball  $^{60}\text{Zn}$  → 3 shifts awarded for TISD to investigate impurities. Physics case to be re-evaluated later. → not yet done → **reminder from Spokesperson this week....**
- P-450/451  $\text{Sc}$  beams → COLLAPS and CRIS →  $^{45-54}\text{Sc}$ : evident R&D needed
- P-462: Electron affinity of At and Po. Various questions of yields during discussion. 9 shifts awarded (instead of 15). → **At ran in 2016: modified target material/ion source....negative run expected in 2017**
- P-464: Laser spectroscopy of Al isotopic chain.  $^{24, 25}\text{Al}$  yields still uncertain. Shifts awarded for  $^{26-33}\text{Al}$ . 16 in total. → **ran in 2016: not on 24, 25Al**
- I-169 (Miniball):  $^{146}\text{Ce}$ ,  $^{148}\text{Ce}$ .  $^{146}\text{CeO}$  from Ta46X
- P-263-Add-1 (ISOLTRAP):  $^{98-100}\text{Kr}$ . TISD required(?) on **nanoUc-VD7**. **Esp for 99/100Kr**
- INTC-P-471 (IDS):  $^{74-80}\text{Cu}$ . From users (2016):  $^{76}\text{Cu}$ : 2000 ions/s.  $^{77}\text{Cu}$ : 200 ions/s.  $^{78}\text{Cu}$ : 20 ions/s.
- INTC-P-472 (COLLAPS):  $^{65-76}\text{Ge}$
- INTC-I-170 (COLLAPS):  $^{77-83}\text{Ge}$ . TISD required. UCx-VD5  $^{34}\text{S}$ ,  $\text{ThO}_2$ , Ge RILIS, etc. Some yields measured...to be recovered. Impurities...
- INTC-I-171 (CRIS):  $^{17-26}\text{F}$ .  $^{17}\text{F}$ : SiC available.  $^{18}\text{F}$ : available Others: TISD needed. n-rich F:AlF+ and break up ? F- KENIS, Th foils or ThO. RILIS help
- INTC-P-475 (ISOLTRAP):  $^{58}\text{Zn}$ ;  $^{56}\text{Cu}$ . Yield estimate  $^{56}\text{Cu}$ ? Needs to be checked. **Nano Y2O3?** TISD possible.
- $^{57}\text{Co}$  or  $^{56}\text{Co}$ ?  $\text{ZrO}/\text{YO}_2$ ; RILIS
- IS456: **Status of LIST** → Thomas awaiting new developments.

### INTC 55

- IS627  $\text{Sc}$  for diffusion (molecular ok...)
- $^{229}\text{Pa}$  LOI

## Pending approval INTC 56:

- P-494: 80Zn
  - (lots of Zn beams being requested...implications for RILIS?)
- LOI177: 38-42Cl
- P-486: 48-61Cr (two different target units...)
- LOI176: 27-35Si
- P-498 225Ac tests
- LOI178: refractory elements by laser induced breakup

## 2017

- Te for Miniball? Needs RILIS efficiency test.
- Status of nanostructure targets → only CaO possible?
- Ability to run long runs: e.g. 30 shifts?
- Status of backups/contingency.
- Availability of targets from beginning: start with light? – we usually do
- 12 units of UCx? (if some already “pre-baked”: chance of more once ventilation back in Class A?)
- LIEBE: GPS to be blocked for XXX weeks?
- Length of negative run. Status of ThO?
- Impact of MEDICIS on targets etc if running sometime in 2017