

# NOVA Shields with Tungsten $^{222}\text{Rn}$ Emanation Measurement

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# Sample Photos



**Figure 1:** This is photo of Gordon Ramsay

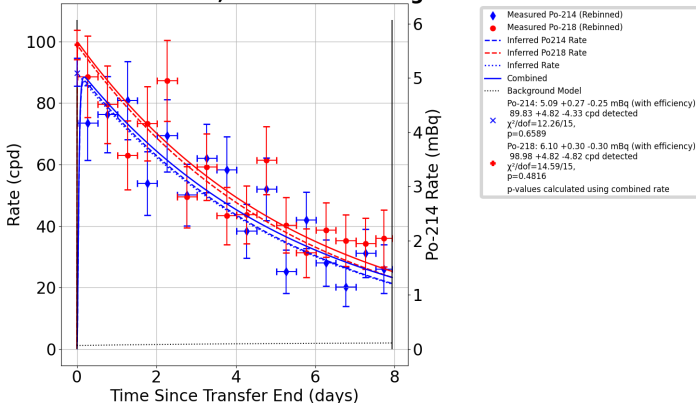
# Overview of Emanation

- Sample was emanated twice throughout Fall 2021
  - Total Hours Emanated: 981 H
  - Total Data Hours: 399 H
  - Usable Data Hours: 246 H
- Assays indicate an emanation rate of  **$5.16 \pm 0.22$  mBq**



# Rate vs. Time, Run 679

**Rate vs Time Run 679, with Model Background**



**Figure 2:**  $^{222}\text{Rn}$  Emanation Rate:  $5.09 \pm 0.26$  mBq (from  $^{214}\text{Po}$  Rate)



# Rate vs. Time, Run 681

Rate vs Time Run 681, with Model Background

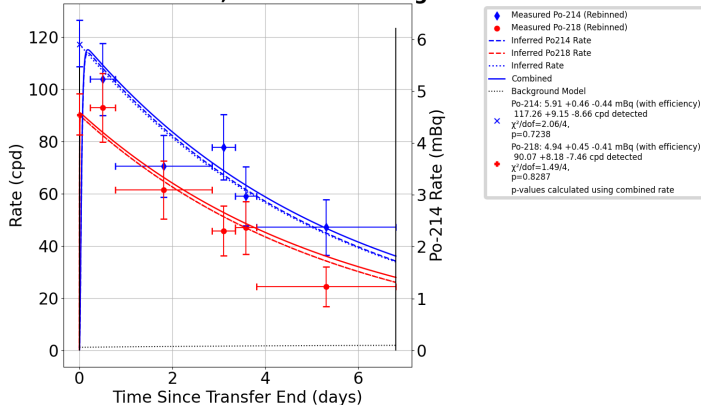


Figure 3:  $^{222}\text{Rn}$  Emanation Rate:  $5.41 \pm 0.48$  mBq (from  $^{21}\text{Po}$  rates)



# Summary of NOVA Shields with Tungsten Assay



Backup Slides contain additional data and information that may be helpful to provide context if questions come up.

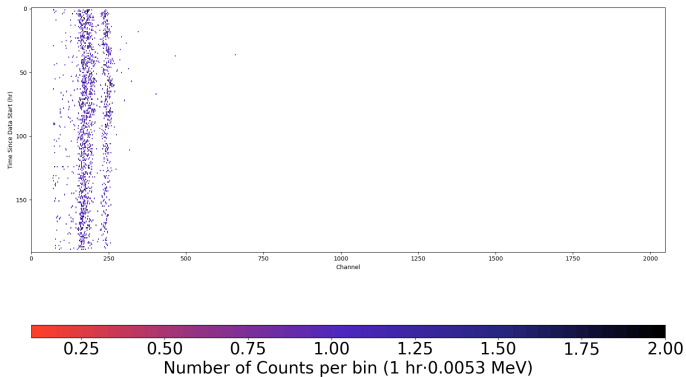


The following slides contain data from Run 679, the first emanation of the NOVA Shield with Tungsten.

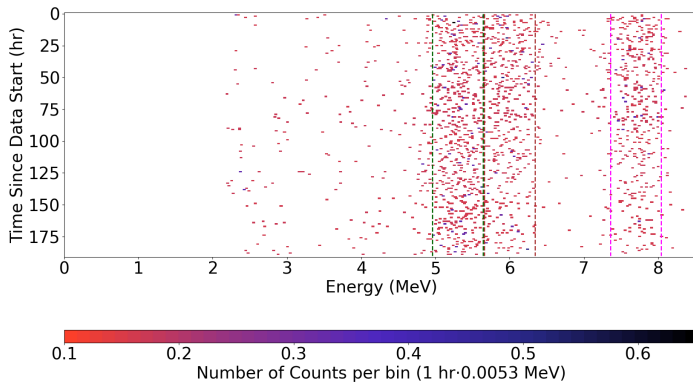




# Run 679 Raw Data



# Run 679 Gain-Corrected Data



The following slides contain data from Run 681, the second emanation of the NOVA Shield with Tungsten.

