Genesis Solar Wind Curation

Allton & Nyquist 11/9/2016 CAPTEM

Oversight subcommittee:
Nyquist, Chair
Wiens
Papanastassiou
Pellin
McKeegan
(Burnett, advisory)

Curation:
Allton, Curator
Allums, Gonzalez

Requests & Allocations FY 2016

Genesis-flown	18 samples, 5 investigators
Reference material	3 samples, 2 investigators
Science studies	Br feasibility, Mg fluence & isotopes, sulfur fluence, cleaning studies
Requests	8 from 6 investigators

Lab work has focused on characterizing regime samples to support investigations involving solar wind physics and on long term storage efficiency.

Accessible GENESIS knowledge needed-

Idea One:

Preserve corporate knowledge about collector materials through a “compendium” of materials by batch?

- Bulk purity
- Surface cleanliness
- Ion implant runs

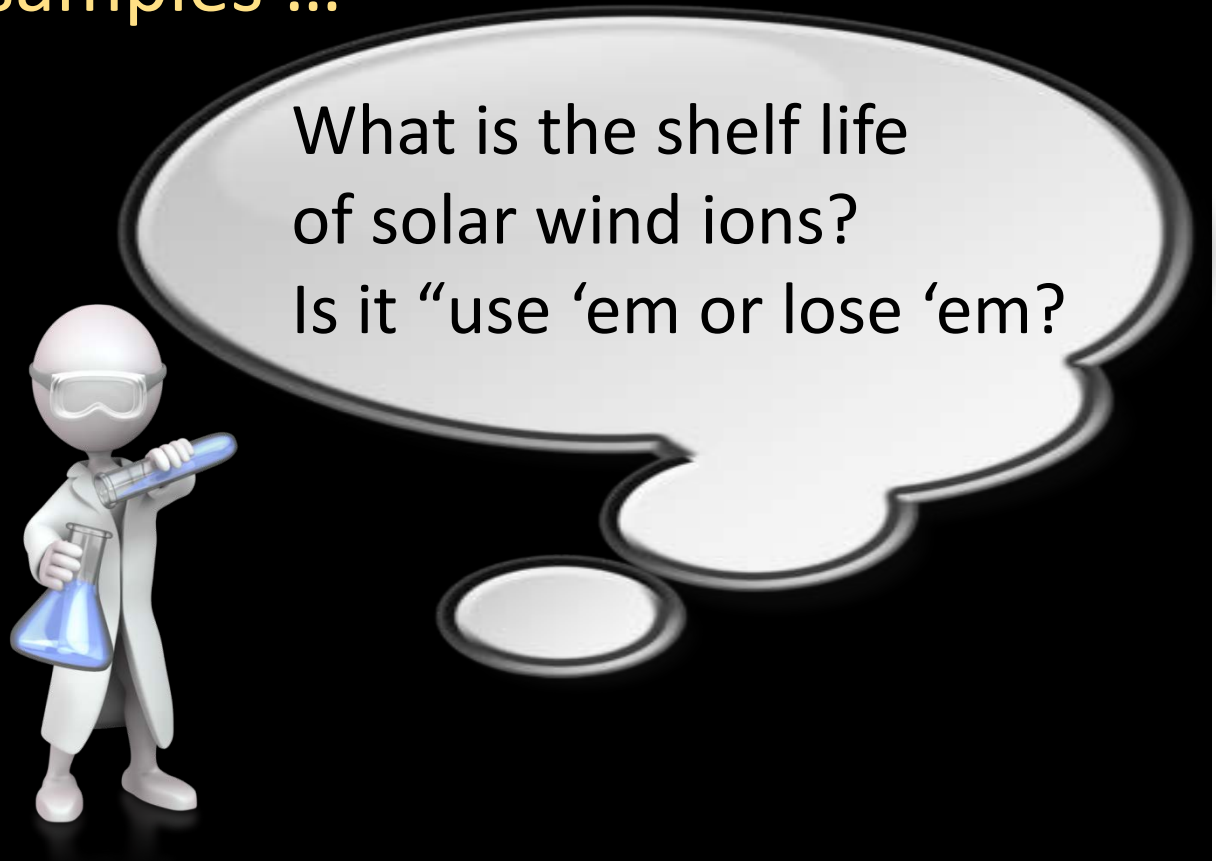
Accessible GENESIS knowledge needed -

Idea Two:

Maintain a “compendium” of published science results. This would be helpful for subcommittee reference in evaluating requests.

As well as requestors

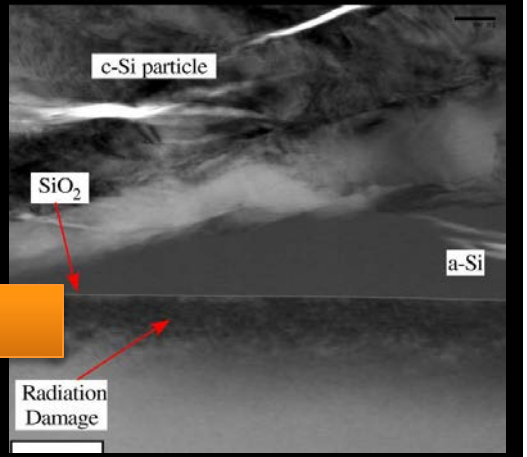
Approaches to prudent conservation of samples …



Use science & engineering knowledge from Genesis samples for exploration?

A way to bring scientists into mission participation?

- Space weathering
- Molecular contamination distribution
- Crash impact modeling



PRIORITY

- COMPENDIUM OF MATERIALS
- COMPENDIUM OF SCIENCE

Thank you!

Teaser footnote – 2016 paper by Choi et al in Chemical Geology, v 441, pp.246-255 quantifies Fe and Ni abundances…. Ni abundance is higher than expected.