

CIPS/IGPP-LLNL/BayPAC 2-day Workshop

Stardust: The First Cometary & Interstellar Dust Sample Return

Day 1 Agenda: Dec. 1, 2005

Session 1: Stardust Sample Preparation & Microanalysis (Chair: Hope Ishii)

9.30 -9.45: John Bradley (IGPP, Lawrence Livermore National Laboratory)

Welcome followed by

The Analytical Capabilities of BayPAC – A resource for the International Space & Planetary Sciences Community

9.45-10.15: Peter Tsou (NASA/JPL)

Stardust – Sample Return Mission

10.15-10.45: Carl Allen (NASA/JSC)

Curation and extraction at JSC

10.45-11.00: Coffee break

11.00-11.30: Giles Graham (IGPP, Lawrence Livermore National Laboratory)

Recovery of impact material from craters and aerogel by focused ion beam microscopy

11.30-12.00: John Bridges (The Open University)

Recovery and analysis of particles in aerogel using FIB/SEM

12.00-12.30: Julie Sheffield-Parker (XRT Ltd)

High resolution X-ray ultraMicroscopy and phase contrast imaging of Stardust Analogue material

12.30-1.30: Catered Lunch

Session 2: Stardust Microanalysis (Chair: Giles Graham)

1.30-2.00: Anton Kearsley (Natural History Museum)

Calibration & residue chemistry studies of Micro-craters in Al-foils

2.00-2.30: Hope Ishii (IGPP, Lawrence Livermore National Laboratory)

Synchrotron based X-ray microanalysis of IDPs and the prospects for Stardust

2.30-3.00: Jerome Aleon (Lawrence Livermore National Laboratory)

SIMS analysis of IDPs and prospects for Stardust

3.00-3.15: Afternoon tea

3.15-3.45: Rhonda Stroud (Naval Research Laboratory)

Coordinated structure-isotope studies of cosmic dust

3.45-4.15: Marc Fries (Carnegie Institute of Washington)

Raman microscopy of extraterrestrial materials

4.15-4.45: Patrick Grant (Lawrence Livermore National Laboratory)

Elemental Analysis of Cometary Debris using PESA, PBS and PIXE

Day 2 Agenda: Dec. 2, 2005

8:30-8:50: Tour of the SSL Stardust Lab

Session 3: Exploring the composition of a comet (Chair: Andrew Westphal)

9.00-9.15: Imke De Pater (UC Berkeley / CIPS) and Andrew Westphal (Space Sciences Lab)
Welcome & Introductions

9.15-9.45: Don Brownlee (University of Washington)
Overview of Stardust Preliminary Examination, plus Adventures with Acrylic

9:45-10.15: John Bradley (IGPP, Lawrence Livermore National Laboratory)
A revolution in nano-scale characterization of IDPs

10.15-10.25: Pop-up talk I (Bill Reach, Spitzer Science Center / Caltech)

10:25-11:00: Coffee break

11:00-11:30: Kevin McKeegan (University of California, Los Angeles)
What can isotope measurements of Stardust samples tell us?

11:30-12:00: Alice Toppani (Lawrence Livermore National Laboratory)
Experimental insights on the formation of protosolar and interstellar dust grains

12.00-12.10: Pop-up talk II (Meagan Spencer, Stanford University)

12.10-1.00: Catered Lunch

Session 4: Cometary Science (Chair: Anna Butterworth)

1.00-1.30 Peter Jenniskens (SETI Inst.)
What has been learned about cometary dust from meteor observations?

1.30-2.00 Chun-Yen Chen (Academica Sinica)
DUST-BUSTER, a laser-ionization(LI) time-of-flight(TOF) secondary neutral mass spectrometer (SNMS) optimized for the search of large isotopic anomalies in small dust grains

2.00-2.30: Carey Lisse (University of Maryland)
The Latest Results on the Dust Emitted During the Deep Impact Encounter with Comet 9P/Tempel I

2.30-2.50: Afternoon Tea

2.50-3.00: Pop-up talk III (Anna Butterworth, Space Sciences Laboratory)

3.00-3.30 Max Bernstein (NASA / Ames)
Oxygen and deuterium on aromatics as an potential remnant of low temperature radiation chemistry

3:30-4:00: Nicolas Altobelli (NASA / JPL)
Decoding the information about the ISM brought by ISD grains messengers in the Solar System: the in-situ measurement point-of-view

4:00-4.10: Pop-talk IV (Andrew Westphal, Space Sciences Laboratory)

4.10-4.30: Matthieu Gounelle (Muséum National d'Histoire Naturelle)
The possible cometary origin of C11 chondrites and polar micrometeorites

