



1
00:00:08,200 --> 00:00:04,090

[silence]

2
00:00:16,400 --> 00:00:12,310

[music]

3
00:00:16,420 --> 00:00:20,480

analytical lab. I work on analytical astrochemistry

4
00:00:20,500 --> 00:00:24,540

which means I'm trying to understand the chemical makeup of extraterrestrial

5
00:00:24,560 --> 00:00:28,600

materials--things like meteorites and comets. So, I'm looking for the ingredients for life

6
00:00:28,620 --> 00:00:32,640

--things like amino acids and nucleobases that are important to life on Earth,

7
00:00:32,660 --> 00:00:36,660

and we're trying to understand where they came from and how they're distributed throughout the solar system.

8
00:00:36,680 --> 00:00:40,680

Our biggest discovery that we did, uh, was looking at this cometary

9
00:00:40,700 --> 00:00:44,760

material that was returned from NASA's Stardust mission, and the Stardust mission

10
00:00:44,780 --> 00:00:48,890

--it went up, rendezvoused with a comet, brought back very small amounts

11
00:00:48,910 --> 00:00:52,960

of material--comet material and comet-exposed material...we had basically one

12
00:00:52,980 --> 00:00:57,050

shot at looking at this, and it was really pushing our limits of detection. So I spent

13
00:00:57,070 --> 00:01:01,150

about two years optimizing our technique, y'know, really rehearsing

14

00:01:01,170 --> 00:01:05,200

and practicing, getting everything as perfect as possible before

15

00:01:05,220 --> 00:01:09,240

the one day of doing measurements. It's sort of all leading up to one big

16

00:01:09,260 --> 00:01:13,280

game, one big day. And also, just working with meteorites, and working with the cometary

17

00:01:13,300 --> 00:01:17,300

material, I'm working with something that's four and a half billion years old that very

18

00:01:17,320 --> 00:01:21,320

few people ever get to play with and to...the few days

19

00:01:21,340 --> 00:01:25,430

of being able to do the actual measurements make up for all of the

20

00:01:25,450 --> 00:01:29,500

rehearsals that it takes. [beeping]

21

00:01:29,520 --> 00:01:33,560

[beeping]