MITOCW | MIT5_301F12_Ep05_The_Alliances_300k.mp4

PHIL: One person is going to win, and they can choose to bring along somebody of their choice.

[MUSIC PLAYING]

NARRATOR: Last time in 5.301, the students just practiced re-crystallization. Now it's time for the real thing.

PROFESSOR: You're actually going to take your crystals, and you're going to re-crystallize them, to produce one big crystal.

And there's a prize. Whoever gets this first is going to lunch with me at Legal Sea Foods, and you can bring one

of your friends, and you can invite the TAs.

NARRATOR: The goal is to grow a single, perfect, crystal. But first, the students have to actually make the compound they're

going to grow their crystals from, this chromium complex.

This is their first real reaction in the lab.

ANTHONY: It's a different color and that's usually pretty good in chemistry.

NARRATOR: After they filter, wash, and dry their product, the students begin testing solvents, and some start teaming up.

PHIL: I actually saw an alliance forming over here.

YI-SHIUAN: I saw some of them split up trying different solvents. We actually worked on find the solvents together.

JULIE: We decided to use dichloromethane and hexane for our solvents.

ANTHONY: We're going to use hexanes and methanol. Shh. We're going to win.

NARRATOR: Hansol seems pretty driven.

HANSOL: I like competition. I want to win, obviously.

NARRATOR: If you win, who will you invite to lunch?

HANSOL: I would probably pick Dan. I made a deal with him earlier.

NARRATOR: So, Hansol's been working with Dan. What about you, Emily?

EMILY: Yeah, I worked with Dan to figure out what solvent system would work well.

NARRATOR: Uh, OK. Let's recap.

HANSOL: Dan.

EMILY: Dan.

HANSOL: Dan.

EMILY: Dan

HANSOL: Dan.

EMILY: Dan.

NARRATOR: Dan, what do you have to say for yourself?

DAN: It was a loosely formed alliance, we didn't sign any papers.

NARRATOR: Ike meanwhile has a different idea.

IKE: I'm broke. If I get the ticket I'm going to sell it for money. Because I know, these suckers want it really bad.

PHIL: We have some people whose samples look pretty good. They seem to be wanting to try a lot of different solvent

systems, a lot of different temperatures. They're asking a lot of questions. They want to make sure that everything is perfect. Because I think everyone wants to get the biggest crystal. They're very determined.

They're going for all or nothing. They don't want a bunch of small crystals.

LINA: Next week, we're going to win the biggest crystal competition. Because the winners get to take the TAs and

Professor Dolhun out to lunch.

JULIE: Legal Sea Foods, for free.

NARRATOR: So that's it. Everything's set and everyone's excited about the prize. But, who will win? Find out next time on

5.301.

JULIE: Yeah, we're done.

PHIL: I'm having this re-occurring dream. It's like I'm jogging through a park with a fitness boot camp. And I stop to talk

to Kris Jenner. And I always say, no, no, no, Kris, I can't talk to you right now. And she pours Kool-Aid on me. And I

wake up drenched in Kool-Aid. That's a dream. If it was Bruce Jenner pouring Kool-Aid on me, that would be a

nightmare.

[MUSIC PLAYING]