[FELICE FRANKEL speaking] In this week's discussion of video, we're going to show you some interesting examples of other peoples' work.

Now, remember that the basics of still photography that you've just learned all these previous weeks, apply to making successful videos.

For starters, we are incredibly lucky to be able to show you some remarkable videos from a project called "Beautiful Chemistry".

Here's the website with full credit.

Now I encourage you to see them all.

I am quite sure they will inspire you come up with your own amazing videos, if your work requires video capturing macro-level phenomena.

Scientist Yan Liang, a collaborator of mine, is the creator and director of the project.

We asked him to tell us a little about his techniques for three of the videos.

Welcome, Liang, to our class.

[YAN LIANG speaking] Thank you, Felice.

It's wonderful being part of this course.

I'd be happy to talk about how we captured three particular phenomena.

In this segment we're showing metal displacement reactions.

We dropped zinc metal into different solutions and recorded the emergence of beautiful structures of other metals such as silver or lead.

All reactions were shot in real time and we sped them up during editing in Final Cut Pro X.

For example, one sort of silver displacement was sped up 60 times, which means one second of our video is one minute in real time.

For light setup, we used two large LED panels to light a cubic glass container in which the reactions occurred.

Typically, a black cloth or a white plastic board was placed about one foot behind the container as black or white background.

And we shot reactions in the front with a Panasonic GH4 camera and 100mm macro lens.

All the reactions were shot in a normal lab with overhead fluorescent lights.

Because the LED panels were so much brighter than the fluorescent lights, we typically left them on.

In this segment, we are showing a few crystallization processes, including crystallization of copper sulfate, sodium thiosulfate crystallization, and two more.

We chose crystallization processes that are fast enough so that we could shot in real time and speed them up in editing.

We did not select crystallization processes that could take hours or days to form large crystals.

For those, time-lapse photography has to be used, and lighting and exposure have to be carefully controlled to avoid flicker in the final video.

Finally, in this segment, we are showing a few bubbling reactions, such as zinc metal reacts with hydrochloride acid to form hydrogen bubbles.

These reactions are fast and we usually did not need to speed them up in editing.

Our light setup worked well for bubbles.

The white highlights on the right and left sides of the bubbles are the reflection of two light panels.

These highlights gave bubbles a very interesting look.