

Transcript of Video “When Smoke Gets in Your Eyes,” by Dr. Daniel Silver

A video by Dr. Daniel Silver, professor emeritus in the Department of Mathematics and Statistics at the University of South Alabama. The video also features Dr. Andrzej Wierzbicki (Chemistry department) and commentary by Dr. Susan Williams (emerita in the Department of Mathematics and Statistics). The video was filmed by Dr. Susan Williams.

Start of video:

- [00:00:00] Daniel: In 1876 the Scottish physicist Peter Guthrie Tait did a smoke ring experiment for Lord Kelvin.
- [00:00:08] Daniel: He took a packing box roughly this size...he cut a hole in one end about six to eight inches...removed the other side...stretched a towel or possibly rubber sheet.
- [00:00:22] Daniel: We're going to use a bag from the University of South Alabama bookstore – Go Jaguars.
- [00:00:38] Daniel: And then he took two beakers...put some acid in one...put some base in the other...put the two beakers inside the box...let the vapors combine...producing clouds...whacked the back of the box and saw smoke rings emerge...[um] remarkable properties...convincing Lord Kelvin that there was something perhaps to the Helmholtz theory of vortex motion.
- [00:01:00] Susan: Should I be recording now?
- [00:01:03] Daniel: No...should be watching me.
- [00:01:05] Susan: Yes...and there is smoke.
- [00:01:14] Susan: That's a little better with a black background...when it gets to the end.
- [00:01:27] Daniel: I think I'm going too fast...there we go...that looks good.
- [00:01:38] Andrzej: That looks great.
- [00:01:40] Susan: Pretty good...yeah that looks better.
- [00:01:44] Andrzej: So I do have a positive influence on the chemicals...wow that was good.
- [00:01:54] Susan: Yes
- [00:01:55] Andrzej: Dan you're getting up there.
- [00:02:23] Daniel: Yes, look.

[00:02:24] Susan: Oh yes...oh wow...that's what we needed...okay you have to warn me before you do one.

[00:02:33] Daniel: Oh look.

[00:02:24] Andrzej: Now this is beautiful.

[00:02:52] Susan: I'm not getting the form well.

[00:03:00] Susan: Okay wait a minute he went between us...okay now.

[00:03:05]- [00:04:54] Indistinct talking between Daniel and Andrzej.

[00:04:55] Daniel: You should get behind us so you can see the rows.

[00:05:38] [End of video]