

*It wasn't nominated for an Oscar (and no one is saying it should have been), but last fall's movie Chain Reaction had bidden links to Caltech. Former Lloyd House president Ken Suslick (BS '74), now the William H. & Janet Lycan Professor of Chemistry at the University of Illinois at Urbana-Champaign, became a big noise in the study of ultrasound—ultra-high-frequency sound waves—in the early 1980s (see E&S, Spring 1994). Here he recounts how his research led Hollywood to come calling in central Illinois. (This article is reprinted courtesy of Inside Illinois, the faculty/staff newspaper of the University of Illinois at Urbana-Champaign.)*

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Some of you may have seen a movie last fall called *Chain Reaction*. If so, you have my condolences. Nonetheless, it isn't too often that a chemist finds himself involved with Hollywood, much less gets money for his school off a bad movie.

One pleasant fall day in 1994, I found on my chair—the only safe place to leave a slip of paper in my office—a phone message from someone

claiming to be a Hollywood director. "Yeah, right!" I remember thinking as I dialed the number. It turned out that the caller, Gene Serdena, was the set director of a Twentieth Century Fox movie tentatively titled *Dead Drop*, then in preproduction.

The movie was to be about a Nobel-laureate professor and his graduate student, who discover the use of sonoluminescence—the incandescent glow generated when liquids are irradiated with ultrasound—to catalytically produce unlimited quantities of hydrogen (the ultimate clean fuel) from water. (Minor technical errors—such as violations of the laws of thermodynamics—are obviously no problem for Hollywood.) The professor is killed when the bad guys try to steal the discovery, and the intrepid graduate student runs through chase scene after chase scene to expose the evildoers. This is no surprise, since the director is Andrew (*The Fugitive*) Davis. Serdena told me that the grad student would be played by Keanu Reeves, the love interest by

Nicole Kidman, and the prof probably by Alan Arkin (or maybe—I kid you not—Marlon Brando). By the time the movie actually got made, Kidman had been traded for a starlet and Brando had been downsized to Morgan Freeman.

Gene called me because of my work on sonoluminescence and other chemical effects of high-intensity ultrasound. He wanted to visit our labs to see what a chemistry lab actually looks like. So Gene and his assistant drove in from Chicago for a visit. With video and still cameras, they shot everything that didn't move. It was fun showing him around and trying to explain why things were set up the way they were. They even gave disposable cameras to my graduate students and myself to see how we live. Cinéma vérité, at least for the set design!

A week later, Gene called again. Now he wanted to rent equipment from the lab for the set. I explained to him that we do actually use this stuff and that it's very expensive equipment. He sounded disappointed, and then it hit me—he doesn't want equipment that works, only that looks like it works. And I knew about this cavernous storage area in the basement of Roger Adams Lab that was full of old equipment—ancient Infracord spectrophotometers, several dozen old black-and-white monitors, prewar lathes (not sure which war), and so on—all stuff too good to throw away at the time it was hauled down there, but of no use now. I suggested that maybe they'd like to see the "scientific equipment" in our storage area. His assistant returned to Champaign and, with flashlights in hand, we went spelunking into the depths of RAL. She photographed everything (again)

**It's a nail-biting moment for Keanu Reeves (left), Morgan Freeman (to his right), and other "scientists" on a set that probably came from the collection of pre-owned lab equipment in Suslick's basement storage. ("Who uses dials anymore?" says Suslick. "Not even the Russians.")**

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