



# 137 FILMS

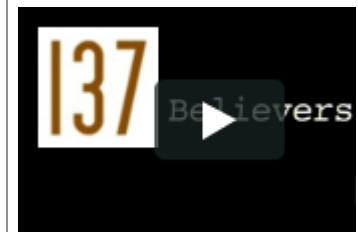
"137 Films makes movies about science, a field they believe - like poetry - is mind-bending, and rich in beauty, metaphor, and meaning."

- Seed Magazi

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## The Believers

**STATUS: POST-PRODUCTION**



Watch the 4:00 minute trailer

Twenty years ago, Pons and Fleischmann proclaimed that Cold Fusion would save the world. Some people still believe them.

### What is Cold Fusion?

First, we'll start with a more basic question: what is fusion? It's what happens in the sun: two atoms of hydrogen crush together to make one atom of helium. That process releases energy. In the core of the sun and the stars, it releases an enormous amount of energy.

## Synopsis

The Believers tells the strange story of Martin Fleischmann and Stanley Pons, chronologically documenting the summer of 1989 as well as new developments today. The tale includes mystery, scandal, personal tragedy, and scientific wonder.

As in Akira Kurosawa's Rashomon, understanding of events shifts depending on who is telling the story. A mixture of interviews, vérité footage, archival media, scientific animation, and reenactments will compliment interviews with scientists, journalists, politicians, and officials. Woven together, they paint a vivid, often contradicting account of what happened.



Martin Fleischmann is at the core of the story, both as a fiery intellect in 1989 who achieved near rock-star status and a musing, evasive recluse who today suffers from Parkinson's disease and has become the figurehead of the small band of aging scientists who still pursue cold fusion experiments. The film explores basement laboratories in New Mexico, Illinois, and

California where these believers continue to work, desperate to prove their detractors wrong while wondering if the field will survive when they retire.

Cold fusion scientists and their detractors - the physicists - each claim the other side is blinded by desire. These physicists claim the cold fusionists so desperately want to be right that they overlook fundamental truths about the nature of the atom; cold fusionists claim the physicists are so sure of their facts that they have lost the ability to question them. No definitive answer is presented, so the viewer must determine what --- and whom -- - to believe.

The film will first focus on the fateful announcement of cold fusion and the breathless aftermath as the world contemplates a solution to the looming energy crisis. Interviews with university administrators, scientists, and journalists will bolster international news stories, press conferences, and congressional records as the world hungrily welcomed news of an unlimited source of energy.



Then media stories show the euphoria begin to crumble. "Scientists began to smell blood," states writer Robert Parks. Physicists condemn the experiment, supporters become disillusioned, and the media turns hostile.



This is different from fission, in which atoms are split apart instead of being crushed together. This is what happens in an atomic bomb, and in nuclear power plants. Scientists can do this relatively easily.

Fusion, however, is difficult. One approach is "hot fusion," or to try to mimic the way the sun does using enormous temperatures, pressure, and energy to crush the atoms together. One example of this approach is the Tokamak Fusion Test Reactor. It requires millions of dollars and an enormous infrastructure.



Cold fusion takes a different approach and would cause fusion to happen at room temperature, with a modest array of off-the-shelf equipment that could fit on a tabletop; a tiny, tiny fraction of the cost of hot fusion. Understandably, if this were possible, it would revolutionize the way the world gets energy. However, most scientists agree this method is not possible according to the laws of nature.



Cold fusion is sometimes categorized under the broader label of LENR, or Low Energy Nuclear Reaction. Some researchers prefer this term because it avoids the stigma of cold fusion; others claim that it is more accurate a description of the phenomenon than the term cold fusion.

Fleischmann and Pons refuse to be questioned, accusations of fraud surface, and revelations lead to the conclusion that the two chemists made mistakes and were perhaps even deluded. We meet the modern day Dr. Fleischmann and learn why he and Dr. Pons fled the country in the aftermath of the scandal. At the end of the second act, the pair has been disgraced, and cold fusion is declared dead by mainstream science.

Or is it? The film introduces a group of scientists who, despite professional ridicule and a dearth of resources, are still pursuing cold fusion experiments across the country in basement labs. Under-funded, ignored by mainstream science, and reaching the end of their lives and careers, they work feverishly, desperately hoping for a breakthrough. Excited by renewed interest in their field sparked by the 20th anniversary of the announcement, they attend a cold fusion conference in Rome to present their experiments, hopeful that a new presidential administration might signal a shift in attitude towards their long-derided field.

Meanwhile, journalists wonder why cold fusionists insist on "banging their heads against a series of brick walls." Simultaneously, Fleischmann fights for his health at the sprawling New Jersey mansion of Irving Dardik, a cold fusion devotee and disgraced physician who claims he can apply his "ground-breaking" fusion research to stop Parkinson's disease, curing cold fusion's founding father with the same radical principals that he will use to finally demonstrate that cold fusion is a reality. Between "super-wave therapy" sessions, Fleischmann ruminates on the bitter falling-out he had with his former friend and colleague. "I would have continued working with him," he says. "It's not natural to have such a falling-out."

Risk, and its consequences, resonates through the heart of The Believers. Why did these two prominent scientists risk everything on a difficult, unproven experiment? Was a potential discovery worth their reputations, careers, friendships, and even their families' safety?

For the first time, viewers will find out the real story behind The Believers.