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## **'Cold Fusion' Rebirth? Symposium Explores Low Energy Nuclear Reactions**

In 1989, 'cold fusion' was hailed as a scientific breakthrough with the potential to solve the world's energy problems by providing a virtually unlimited energy source. But subsequent experiments largely failed to replicate the initial findings and the controversial concept was dismissed by most people in the scientific community.

"Although 'cold fusion' is considered controversial, the scientific process demands of us to keep an open mind and examine the new results once every few years," says Gopal Coimbatore, Ph.D., of Texas Tech University, program chair of the American Chemical Society's Division of Environmental Chemistry.

Now, some researchers say they have new evidence that the phenomena -- now called 'low energy nuclear reactions' -- has evolved and is supported by rigorous, repeatable experimental data. All papers in this symposium are embargoed for 8:30 a.m., March 29. The symposium will be held at McCormick Place South, Room S106B, Level 1.

### **Selected highlights are shown below:**

Cold fusion overview, update by New Energy Times editor -- Steven B. Krivit, editor of New Energy Times and author of "The Rebirth of Cold Fusion," will present an overview of the field of low energy nuclear reactions -- aka cold fusion. He will cover news and developments in the field as well as provide the historical and scientific context for the subject. Krivit also will present a brief review of the reaction products and effects that are claimed in the field, and highlight research results for the strongest excess heat claims.

Study by Fleischmann, Miles offers new evidence of excess heat from cold fusion --The original cold fusion experiment in 1989 by Martin Fleischmann and Stanley Pons was dismissed by some scientists as 'bad' science due to alleged errors in calorimetric systems, or heat measurement, that could have misled the scientists into thinking that the excess heat produced was nuclear in origin.

Using more precise calorimetric techniques, a new study by Fleischmann and colleague Melvin Miles reports evidence that the excess heat generated is nuclear and not the result of calorimetric errors. "Our work shows that cold fusion effects are real, but we cannot assess if this excess heat can become useful. Much more research work is needed to answer such questions," says co-author Miles, a chemist at the University of LaVerne in Calif.

### **Illinois chemist documents nuclear reaction products in LENR experiments**

Chemist George Miley is one of a handful of researchers who claims to have documented evidence of transmutations, or the production of new elements, resulting from low energy nuclear reactions (LENR). Transmutations are commonplace in high-energy physics and are considered clear evidence that some kind of nuclear event has occurred during the reaction. Miley, a professor at the University of Illinois, Champaign-Urbana, will discuss his latest research as well as a new theory that may help facilitate the success of low energy nuclear reactions in the future.

### **Evidence of nuclear emission particles detected in new LENR study**

In the field of low energy nuclear reactions (LENR), scientists are challenged by one key question in particular: Are the chemical environments of LENR experiments truly resulting in nuclear reactions? Analytical chemist Pam Mosier-Boss, Ph.D., and her colleagues at the Space and Naval Warfare Systems Center in San Diego, Calif., believe that they have evidence that such nuclear reactions are occurring. In a series of experiments, a standard radiation detector used in nuclear physics research was used to record evidence of high energy atomic particles, providing physical evidence to suggest that a nuclear event had occurred in the LENR experiments. Efforts are ongoing to verify these results.

Overall nearly a dozen scientists will present their findings during a daylong symposium, "New Energy Technology," on March 29, at the 233rd national meeting of the American Chemical Society.

*Note: This story has been adapted from a news release issued by American Chemical Society.*