Navy Chemist May Have Rediscovered 'Cold Fusion'

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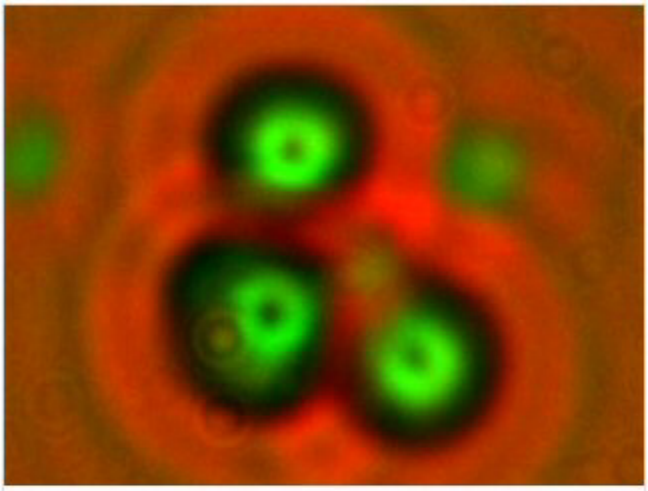

Pamela Mosier-Boss, Space and Naval Warfare Systems Center
The 'cold fusion' device produced this pattern of 'triple tracks' that may be caused by high-energy neutrons resulting from a nuclear reaction.

Twenty years ago this week, a pair of previously unknown scientists stunned the world by announcing they'd done the impossible by achieving nuclear fusion in a lab flask at room temperature.

Martin Fleischmann and Stanley Pons quickly became celebrities as the news media hailed them for discovering a cheap source of nearly limitless power. But it all fell apart as other scientists couldn't duplicate their results, and the pair later admitted they'd made mistakes in the experiments.

Now a U.S. Navy researcher, speaking on the anniversary of and in the same city where they made their announcement, thinks Fleischmann and Pons may have been right.

In a paper presented on Monday, chemist Pamela Mosier-Boss told the annual convention of the American Chemical Society in Salt Lake City that her team had gotten "very significant" evidence of some sort of nuclear reaction.

"To our knowledge, this is the first scientific report of the production of highly energetic neutrons from an LENR device," said Mosier-Boss, a researcher at the Navy's Space and Naval Warfare Systems Center in San Diego, in a press release.

• Click here to read the American Chemical Society press release.

• Click here to visit FOXNews.com's Natural Science Center.

Highly energetic neutrons, which Mosier-Boss' team detected using special neutron-trapping plastic, are emitted from atoms splitting apart — or fusing together — and indicate that a serious nuclear reaction is going on.

"LENR" stands for "low energy nuclear reaction," which in this case happens in a lab flask containing palladium chloride mixed with deuterium, or "heavy water" made with a special form of hydrogen — the same setup Fleischmann and Pons used.

When an electrode was dipped into the flask and the power switched on, Mosier-Boss said, odd patterns of triple neutron strikes would appear on the adjacent plastic receptor.

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Fleischmann and Pons' results centered on unexplainable excess heat resulting from the reaction. Mosier-Boss didn't get that, but the neutrons are even more significant.

"People have always asked 'Where's the neutrons?'" Mosier-Boss said in the press release. "If you have fusion going on, then you have to have neutrons. We now have evidence that there are neutrons present in these LENR reactions."

Nuclear fusion occurs at the center of stars, which fuse together hydrogen nuclei to create helium. It creates enormous amounts of energy, but takes pretty huge amounts of heat to happen at all.

Humans have so far generated the necessary heat only by detonating fission-based atomic bombs, which heat up cores of special two-neutron hydrogen to create a second, fusion-based explosion — a hydrogen bomb.

Decades of efforts to create controlled nuclear fusion, which could power reactors endlessly using cheap, abundant hydrogen, have so far been fruitless.