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Cold Fusion

Dartmouth College HANOVER • NEW HAMPSHIRE • 03755-3528

Department of Physics and Astronomy • *6127 Wilder Laboratory* • TEL.: (603) 646-2359

May 21, 1993

Hon. Dick Swett
Room 230, Cannon House Office Bldg.
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Swett:

I have been hearing that, in some recent committee hearings that you conducted in connection with Department of Energy appropriations, you seemed to be advocating transferring emphasis to cold fusion research and away from more mainstream approaches such as magnetic confinement. I do not have first hand confirmation that this has been your position, but for purposes of this letter I will assume that my information is correct.

As someone rather familiar with both subjects, and with all respect, I would like to suggest to you that this is not a tenable position to take up. As one who has spent the better part of his adult life on fusion research, I would be more than happy to advocate cold fusion as a subject to investigate if I could see any likelihood that it would lead anywhere. Unfortunately, I just don't see any grounds for doing so. Many laboratories in many countries have tried to duplicate the spectacular claims for the subject that were released to the world in the spring of 1989. None have had any success. This essential lack of reproducibility of the results is, in my experience, the surest giveaway that it isn't real science that we are dealing with there.

The situation with magnetic confinement is much different. It has been a long, hard road, and there were perhaps some decisions that one wishes had been made differently; but there is a world-wide network of investigators who, when they try to repeat each other's experiments, find that they get pretty much the same thing. Magnetic confinement research is not what Irving Langmuir called "pathological science," but there is every evidence that cold fusion research is. At the end of the day, it still seems to me to be

overwhelmingly likely that magnetic confinement of a thermonuclearly reacting plasma is the proper path to pursue.

With all good wishes,

David Montgomery

David C. Montgomery
Kelvin Smith Professor of Physics