

The Science of the Cold Fusion Phenomenon

In Search of the Physics and Chemistry
behind Complex Experimental Data Sets

Hideo Kozima

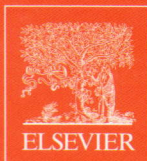
From this natural phenomenon which previously seemed impossible to you, you should realize that there may be others which you do not yet know. Do not conclude from your apprenticeship that there is nothing left for you to learn, but that you still have an infinite amount to learn. B. Pascal Pensées [420] (Translated by A.J. Krailsheimer, Penguin Classics, p.126)

In 1989, the discovery of the now infamous "cold fusion process" was announced at a press conference on the same day that a scientific paper about the discovery was accepted for publication in a scientific journal. This discovery was greeted with great interest across the globe due to its potential application as a greener, more environmentally friendly energy source, and because such a phenomenon is impossible according to accepted theory. At the time, the physics and chemistry of the cold fusion phenomenon were too complicated to be understood based on current thinking then.

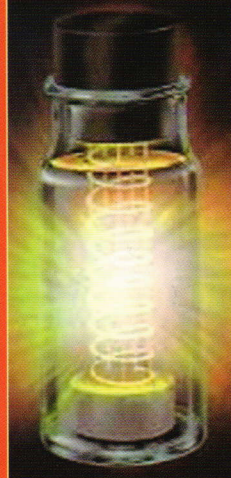
Subsequent developments in the area of "cold fusion" have not been accepted seriously, either by proponents or critics. Seventeen years have elapsed without any marked progress in the understanding of the phenomenon, despite the proliferation of experimental data sets.

In this book, a traditional approach is developed to explain the cold fusion phenomenon, using models, and quantum dynamics in tandem. The results show elements of the new science of the cold fusion phenomenon, where neutrons in solids seem to be a key element in an interdisciplinary region of traditional solid-state physics, nuclear physics and nuclear chemistry.

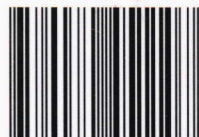
Facts which at first seem improbable will, even on scant explanation, drop the cloak which has hidden them and stand forth in naked and simple beauty. Galileo Galilei, Dialogues Concerning Two New Sciences, Day 1 (Translated by Henry Crew and Alfonso De Salvio)



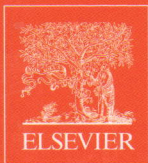
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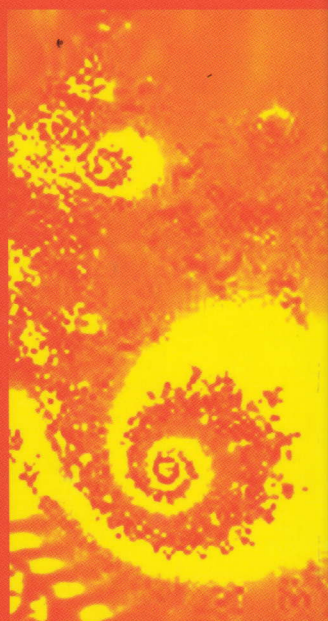


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