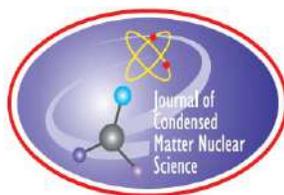


JOURNAL OF CONDENSED MATTER NUCLEAR SCIENCE

Experiments and Methods in Cold Fusion

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Experiments and Methods in Cold Fusion

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PREFACE

Cold Fusion was publicly announced on March 23, 1989 by Professors Martin Fleischmann and Stan Pons. Now, 18 years later the first volume of a refereed scientific journal, entirely devoted to this field is being published. During all these years hundreds of scientists have worked passionately to prove that the two inventors were right. They faced a number of scientific challenges, the exciting side of their endeavour. Working in *terra incognita* was their source of hope and joy. Going where nobody else had gone before, where the most extravagant theory had to be considered. Doing things that were supposed to do nothing, and yet continuing in spite of failures. These people deserve our admiration. Hopefully one day they will be acknowledged as scientific pioneers. In addition to the scientific challenges, they had to fight two more battles; one was the lack of recognition by their peers, and the other the difficulty of publishing their findings in reputed journals.

It will take still more time before the scientific community recognizes the importance and validity of Condensed Matter Nuclear Science. My personal experience, after giving a number of talks and seminars, is that young people are a lot more open to these new ideas than older and established scientists. Therefore, there is hope. However, we need a place where essential aspects of the field can be easily located. I am very proud to be the first editor of this journal that will hopefully become the reference for this field. I would like to thank my colleagues and the associate editors who have entrusted me with this position.

This journal is wide open to new ideas: experimental as well as theoretical. We are engaged in a field where it is difficult to know if classical physics as taught at the university is capable of understanding Condensed Matter Nuclear Science or whether a new science needs to be developed. Only future will tell. This first volume contains a majority of theoretical papers. Even though theories are important in understanding Condensed Matter Nuclear Science, what will certainly be most persuasive in the broader scientific community is a good and reproducible experiment.

In the beginning years of Cold Fusion, attention was concentrated on excess heat, neutron production and helium detection mostly during electrolysis in the palladium heavy water system. Later on, it was discovered that other metals and hydrogen could be used. Excess heat has been measured by many scientists, helium-4 detected in a dozen laboratories, low-level neutrons measured with difficulties in few cases. However, in addition to what was expected, transmutation of elements also has been detected. Recently, new triggering techniques have been developed from gas phase to plasma discharges, complex non-dc electrical stimulation and ultrasound activation.

At 18 it is time to enter adulthood and be free of the pains and accidental conditions of birth. In most countries this is the age of independence from one's parents. It is my hope that the field has at last reached this point. Hopefully this journal will provide stimulation and encouragement, as well as serve to document the second phase of the cold fusion revolution.

Jean-Paul Biberian
March 2007