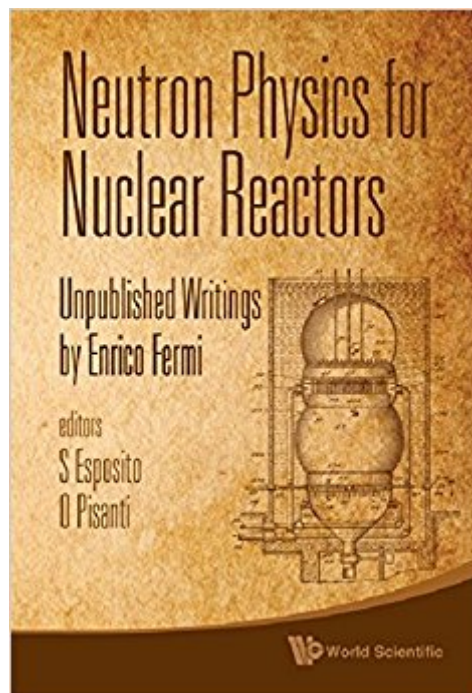




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# Neutron Physics For Nuclear Reactors: Unpublished Writings By Enrico Fermi



## Synopsis

This unique volume gives an accurate and very detailed description of the functioning and operation of basic nuclear reactors, as emerging from yet unpublished papers by Nobel Laureate Enrico Fermi. In the first part, the entire course of lectures on Neutron Physics delivered by Fermi at Los Alamos is reported, according to the version made by Anthony P French. Here, the fundamental physical phenomena are described very clearly and comprehensively, giving the appropriate physics grounds for the functioning of nuclear piles. In the second part, all the patents issued by Fermi (and coworkers) on the functioning, construction and operation of several different kinds of nuclear reactors are reported. Here, the main engineering problems are encountered and solved by employing simple and practical methods, which are described in detail. This seminal work mainly caters to students, teachers and researchers working in nuclear physics and engineering, but it is of invaluable interest to historians of physics too, since the material presented here is entirely novel.

## Book Information

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## Customer Reviews

The topics of the book are described in a readable, clear and comprehensive style. The contents of the book are interesting, novel and invaluable. The book discusses the topics related with low-energy nuclear physics and engineering; therefore, I recommend this text to students, teachers and researchers working in those areas. -- Contemporary Physics "Contemporary Physics"

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of basic nuclear reactors, as emerging from yet unpublished papers by Nobel Laureate Enrico Fermi. In the first part, the entire course of lectures on Neutron Physics delivered by Fermi at Los Alamos is reported, according to the version made by Anthony P French. Here, the fundamental physical phenomena are described very clearly and comprehensively, giving the appropriate physics grounds for the functioning of nuclear piles. In the second part, all the patents issued by Fermi (and coworkers) on the functioning, construction and operation of several different kinds of nuclear reactors are reported. Here, the main engineering problems are encountered and solved by employing simple and practical methods, which are described in detail. This seminal work mainly caters to students, teachers and researchers working in nuclear physics and engineering, but it is of invaluable interest to historians of physics too, since the material presented here is entirely novel.

I bought this book to write a research paper about Fermi's first reactor for a 400-level physics class. The information was pretty useful, and I referenced it significantly. That being said, well over half of the book is just a reprinting of Fermi's patents, which are free from the U.S. Patent Office. The other half is composed of converted notes from one of Fermi's undergraduate students. These have some noticeable grammatical mistakes, but compared to the introduction they are models of proper English. The introduction just explains what the "authors" did to create the book, and is pretty much irrelevant, though it composes about 30 pages. Really, the important stuff takes up about 50 -70 pages out of 400 or so pages. I believe that it is worth only a quarter of what I paid, so use that to judge whether the price matches the value.

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