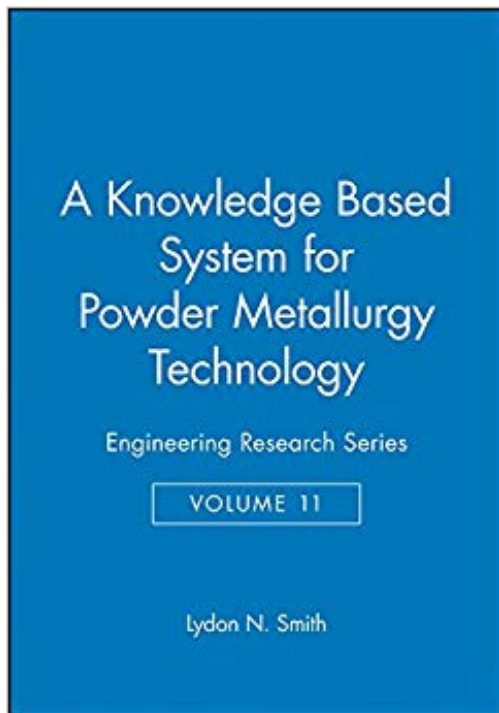


A Knowledge Based System for Powder Metallurgy Technology: Engineering Research Series (Engineering Research Series (REP)) by Lydon N. Smith



ISBN: 1860584020

ISBN13: 978-1860584022

Author: Lydon N. Smith

Book title: A Knowledge Based System for Powder Metallurgy Technology: Engineering Research Series (Engineering Research Series (REP))

Pages: 174

Publisher: Wiley; 1 edition (April 18, 2003)

Language: English

Category: Engineering

Size PDF version: 1697 kb

Size ePUB version: 1313 kb

Size FB2 version: 1539 kb

Other formats: lrf mobi lrf docx

Published as part of the highly successful *Engineering Research Series*, *A Knowledge-Based System for Powder Metallurgy Technology* not only looks at the latest advances in powder metallurgy, but also presents a methodology that offers a means to preserve critical process-related know-how. The author makes this practical information easily accessible to design engineers so that they can take advantage of the opportunities that powder metallurgy offers.

The knowledge-based system aims to simulate the capability of human experts in solving design, materials, and process optimization problems in powder metallurgy. This is achieved through use of process modelling and artificial intelligence techniques such as neural networks.

The rapid developments in expert systems in recent years have enabled accumulated experience and knowledge to be applied in the powder metallurgy field. This calls for careful modelling of the processes together with sound appreciation of both powder metallurgy and knowledge-based systems. *A Knowledge-based System for Powder Metallurgy Technology* introduces the reader to both fields in the early chapters and then illustrates the advantages of the use of expert systems in this significant manufacturing process.

A Knowledge-based System for Powder Metallurgy Technology is based upon the author's extensive experience of computing, expert systems, modelling and powder metallurgy on both sides of the Atlantic and represents a valuable addition to the Engineering Research Series.



Reviews of the [A Knowledge Based System for Powder Metallurgy Technology: Engineering Research Series \(Engineering Research Series \(REP\)\)](#) by Lydon N. Smith

Buzalas

A book that is accessible and inspirational - a must for P/M engineers. I bought it a while ago and find it very useful for helping with approaches for part design analysis and automating process control. I particularly liked the literature review and the section on using neural networks for process modeling. It inspired us to develop some similar network techniques and we are already using them to cut times and costs. It also has interesting sections on materials, processing, the STEP standard and Internet based design consultation - I strongly recommend it. Only wish I could get hold of a similar book on covering use of genetic algorithms/fuzzy logic.

AnnyMars

This offers a new perspective, with interesting chapters on powder packing and neural networks. Plus the author has diligently scanned all references, which are very valuable to current and future workers. The printing and presentation are excellent. The book is an essential addition to any powder metallurgy/technology collection, whether in industry or academia.

Related PDF to [A Knowledge Based System for Powder Metallurgy Technology: Engineering Research Series \(Engineering Research Series \(REP\)\)](#) by Lydon N. Smith

1. [Powder Materials: Current Research and Industrial Practices: Proceedings of a Symposium by Metals and Materials Society. Fall Meeting \(1999 : Cincinnati Ohio\) Minerals,MPMD Powder Materials Committee,Ohio\) International Symposium on Powder Materials: Current Research and Industrial Practices \(1st : 1999 : Cincinnati,F. D. S. Marquis](#)
2. [Powder Metallurgy Diamond Tools](#) by Janusz Konstanty
3. [Advances in Porous Media, Volume 2](#) by M.Y. Corapcioglu
4. [Light Alloys: Metallurgy of the Light Metals, Third Edition \(Metallurgy and Materials Science Series\)](#) by Ian Polmear
5. [Powder Metallurgy of Superalloys \(Butterworths monographs in materials\)](#) by G. H. Gessinger
6. [Advances in Software Engineering and Knowledge Engineering \(Series on Software Engineering and Knowledge Engineering\)](#) by Vincenzo Ambriola,Genoveffa Tortora
7. [Applications of artificial intelligence in engineering VI](#)
8. [Beginning Powder Coater's Handbook: An Introduction to Powder Coating](#) by Tracy Norris
9. [General Principles of Powder Metallurgy](#) by M.Y. Balshin,S. Kiparisov,I.V. Savin

10. [Microprocessor-based System Design \(The Oxford Series in Electrical and Computer Engineering\) by David J. Comer](#)