A Knowledge-Based System for Powder Metallurgy,
L.N. Smith, Professional Engineering Publishing Ltd,

The book is first of its kind in the field of powder metallurgy related to artificial intelligence methods and concurrent engineering. The author is a lecturer in the Faculty of Computing Engineering and Mathematical Sciences at the University of the West of England. The book covers in all seven Chapters, as per following listing:

Chapter 1- Introduction; Chapter 2- Overview; Chapter 3- Literature Review; Chapter 4- A Knowledge based system for powder metallurgy, Chapter 5- Example components for KBS analysis and economic industrial and environmental impacts; Chapter 6- Discussion and areas of further work and finally Chapter 7- Conclusions.

In addition there are 8 Appendices namely, Appendix 1- A selection of technical papers arising from this work, Appendix 2-A brief history of artificial intelligence and discussion on KBS methods and applications; Appendix 3- A brief history of powder metallurgy; Appendix 4-A brief history of the study of powder packing; Appendix 5-Use of computers in powder metallurgy; Appendix 6-Application of Taguchi methods in powder metallurgy; Appendix 7- Application of rapid prototyping techniques in powder forming and Appendix 8-Powder metallurgy laboratory equipment available for educational and research purposes at the University of West of England.

After going through the book it is apparent that the author is at his best while discussing the simulation of powder packing. The transgression of such a simulation to compaction and then subsequently to sintering is not done in such detail. Nevertheless the author has diligently scanned all references, which are very valuable to current and future workers. The Appendix highlighting the facilities in his department related to powder metallurgy is an appropriate one and an eye opener to other computer experts not to be away from experimental work. The printing and get up of the book are excellent. The Chapters often have some repetitions, which could have been avoided, thus making the volume smaller and hence the price within reasonable reach. Some of the references are incomplete e.g. no details of authors or no title of the paper. Even with these shortcomings the book is a must in any powder metallurgy/technology collection, whether in industry or academia.

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