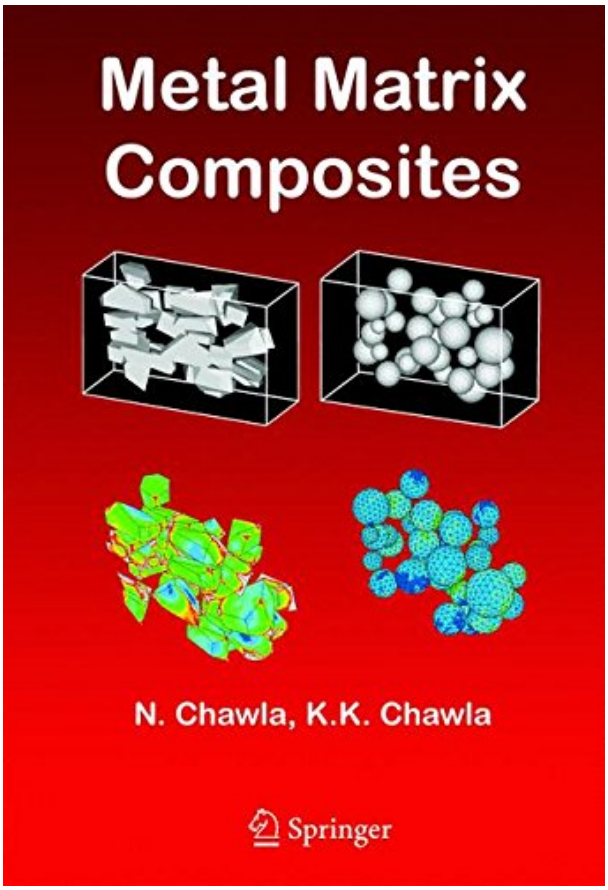
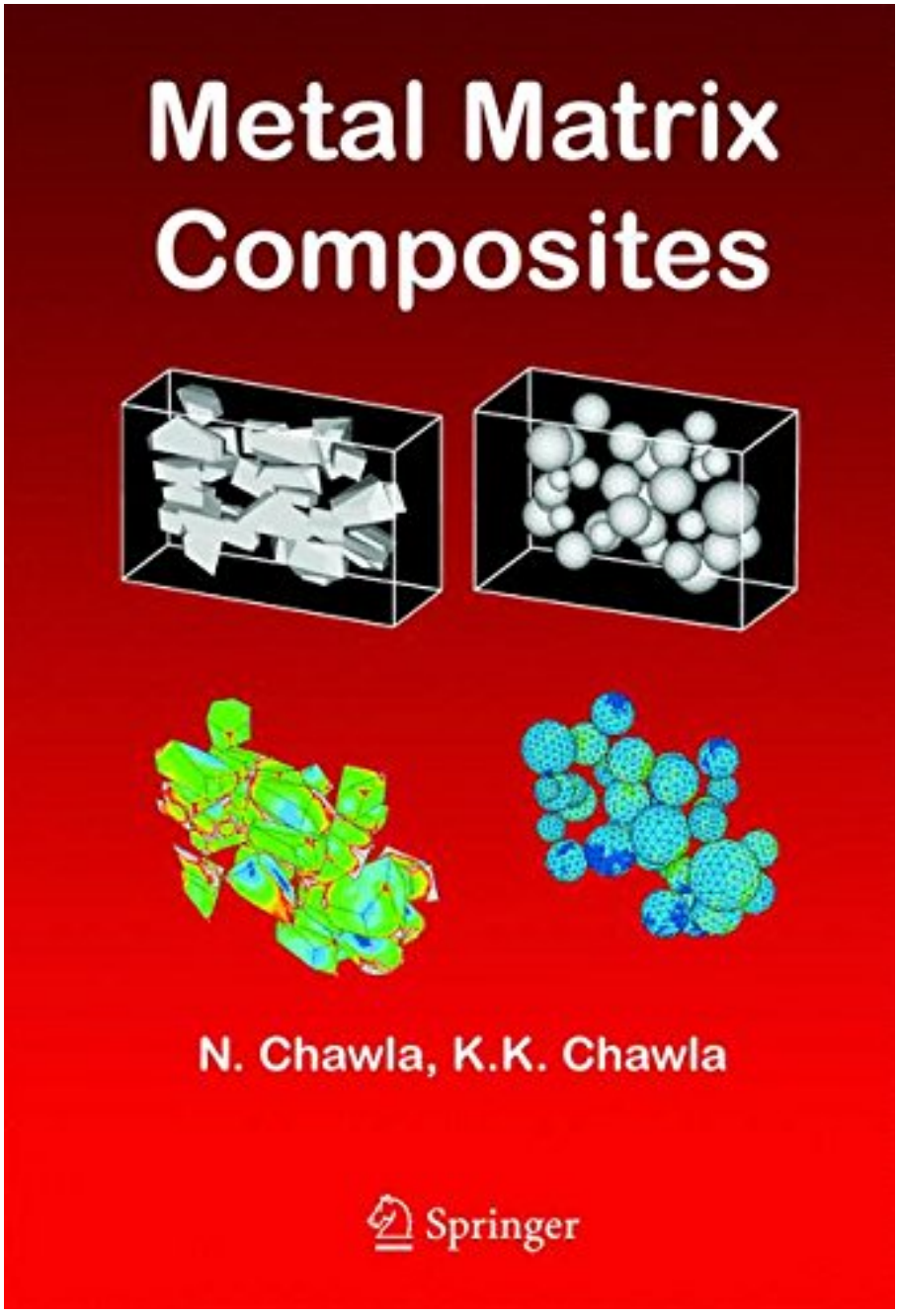
METAL MATRIX COMPOSITES BY NIKHILESH CHAWLA, KRISHAN K. CHAWLA





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Review

From the reviews:

From ADVANCED ENGINEERING MATERIALS 2006, 8, No. 6

This book is a textbook on Metal Matrix Composites (MMCs) and addresses beginning students as well as researchers and professionals who want to deepen their knowledge or catch up with new developments in this field. The book summarizes the extensive work which has been done in the last five decades. And it gives a number of examples of successful applications of MMCs in different areas of use. The interest of the authors centers around the relationship among processing, microstructure, and properties of metal matrix composites....

A comprehensive list of references is given at the end of each chapter, which is valuable for researchers who would like to get more detailed information on a specific topic. The structure of the book is very systematic, which makes it easy to follow. The text is supported by numerous figures. Experimental results are provided as well as data from modeling and simulation. As a result, the book will be interesting for newcomers as well as for practicing scientists or engineers. University teachers will find interesting information and material, which can be used for graduate courses.

"Books specifically devoted to metal-matrix composites … have been a minority. … this book … has successfully filled the gap. … The authors did a good job in presenting a rich body of up-to-date … information. … Throughout the book, the reader will find extensive use of illustrations to supplement the text. The illustrations are generally of good quality. … is a valuable contribution and needed addition to the composite materials literature. It will prove very useful for students, researchers, and engineering professionals … ." (Yu-Lin Shen, JOM – Online, December, 2005)

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In the last few years, a significant increase in applications of MMCs has taken place, particularly in the areas of automotive, aerospace, electronics, and recreation. These include continuous fiber reinforced MMCs for cables in power transmission, high temperature superconducting wires, particulate MMCs in civilian aircraft and automotive applications, and high volume fraction, high thermal conductivity substrates for electronic packaging. Nevertheless, as with any novel material systems, there is a lack of fundamental understanding on the part of practicing engineers and designers. This book would seek to address these issues, in a thorough and cohesive manner, as well as to provide students and scientists with a basic understanding of MMCs. This book will emphasize the synergistic relationships among processing, structure, and properties of metal matrix composites.

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Littered with spelling errors.
By Clark Andrews
I took this class from Nikhilesh Chawla (the author) and this book is littered with spelling errors. Seems to jump around quite a lot and not many of the chapters really connect with each other.

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