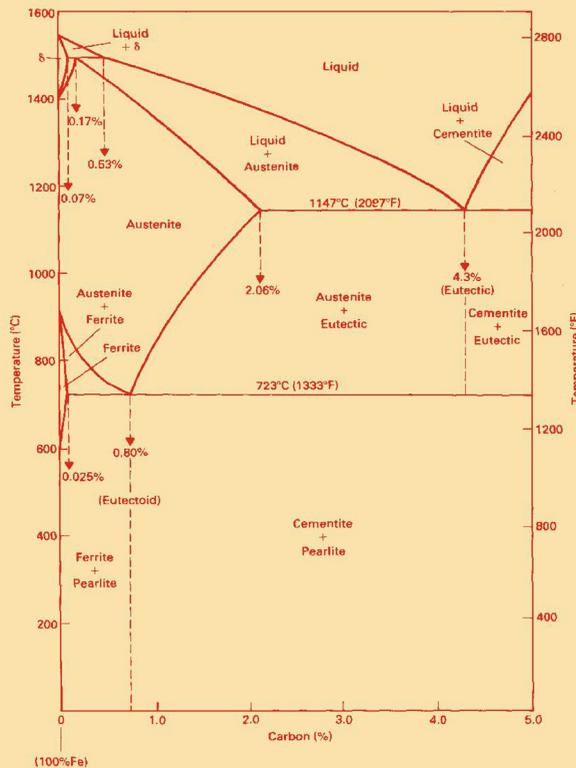
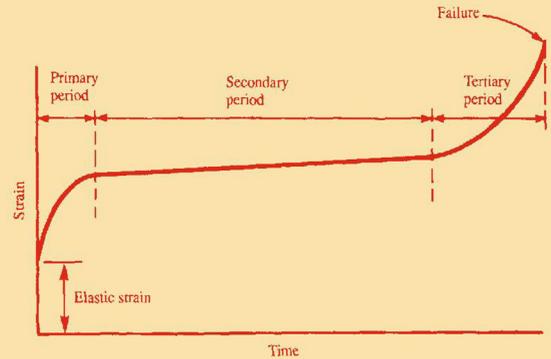
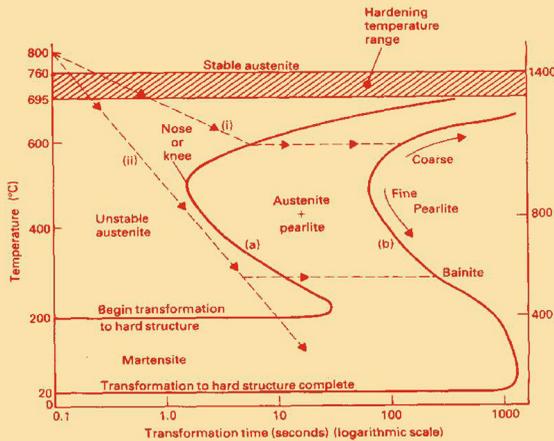


# Material Science and Processes



R.K. Purohit



# **MATERIAL SCIENCE AND PROCESSES**

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***In the everlasting  
memory of my father  
Prof. B.K. Purohit***



# **PREFACE**

Material Science and Processes is a core subject having close relations with all branches of Engineering. No branch of Engineering can be studied properly if one does not have indepth knowledge of material science. Based on this premise AICTE has prescribed this subject for all branches of Engineering.

The concepts of material science are based on different and diverse phenomenon related to materials and alloys with vast application in all branches of Engineering. Hence there is strong rationale for teaching this subject as an integrated topic in Engineering and relevance of materials in 'Engineering Application'.

Considering the fundamental importance of material science and processes, I have ventured to introduce this subject in simple language which can be easily digested by the beginners. The contents of the book has relevance with the subject prescribed by JNVU, Rajasthan University and Institution of Engineers as well as to the courses of study prescribed by various universities of India.

My Publisher Shri Pawan Kumar deserves my thanks for making this publication possible in a record time.

My indebtness is due to my wife Manju Purohit, son Abhishek Purohit (Software Engineer, Australia) and daughter Khushboo Purohit (Computer Science Engineer) for their co-operation and valuable suggestions.

Arrival of my grandson, Chinmay Purohit, has given me fresh vigour to embark upon the book writing project. Hence, entire credit for this book goes to the little one who, I hope, will continue to inspire me to write many more books to enrich the quality of text books on Mechanical Engineering.

I hope, the teachers and the student community would find this book useful.

**JODHPUR**

**R.K. Purohit**



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