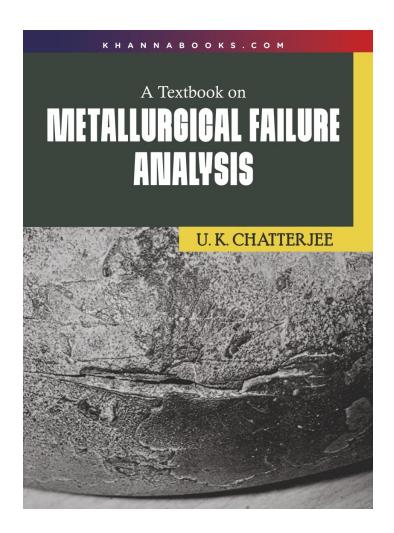
KHANNABOOKS.COM



Textbook on Metallurgical Failure Analysis

Author: U. K. Chatterjee

ISBN 13: 978-93-55387-11-0

ISBN 10: 93-55387-11-3

E-ISBN 13: 978-93-55387-11-0

Edition: 1

Pages: 186

Type of book : Paperback

Year: 2025

Language : English

Publisher: Khanna Publishing House

M.R.P: Rs 398.00

Categories: Metallurgical Engineering

Condition Type: New

Country Origin: India



KHANNABOOKS.COM

Product Description

A Textbook on METALLURGICAL FAILURE ANALYSIS: This handy textbook presents the basic causes of failure of metallic components and the factors – mechanical, metallurgical, thermal and environmental – that contribute to the failure. Basis of metal deformation and fracture, including fractography, are elaborated. Procedure for failure analysis has been explained and the tools used for failure analysis described. Several actual cases of failure investigation are included. The classified types of failure covered in the book are:

- Fatigue failure
- Wear failure
- Environment assisted failure
- High temperature failure
- Casting failure
- Heat treatment related failure
- Metalworking defeat related failure
- Weld failure

Table of Contents

Chapter 1: Source of Failure Chapter 2: Steps of failure analysis Chapter 3: Tools of Failure Analysis Chapter 4:

Deformation Fundamentals Chapter 5: Fracture of Metals Chapter 6: Fatigue Failure Chapter 7: Wear Failure Chapter 8: Environment Assisted failure Chapter 9: High Temperature failure Chapter 10: Casting Failure Chapter 11: Heat Treatment Related Failure Chapter 12: Metalworking Defects Chapter 13: weld failure Chapter 14: Case Failure Suggested reading

Author

K CHATTERJEE: obtained the B.Tech (1964) and Ph.D. (1968) degree in metallurgical engineering from the Indian Institute of technology, Kharagpur, and served as a faculty member there for 41 years, The author or co-author of 110 papers in professional journals and conference proceedings and co-author of the book 'Environmental degradation of metals' (Marcel Dekker. 2001). He is an alexander von Humboldt fellow and a life of IIT Kharagpur.

