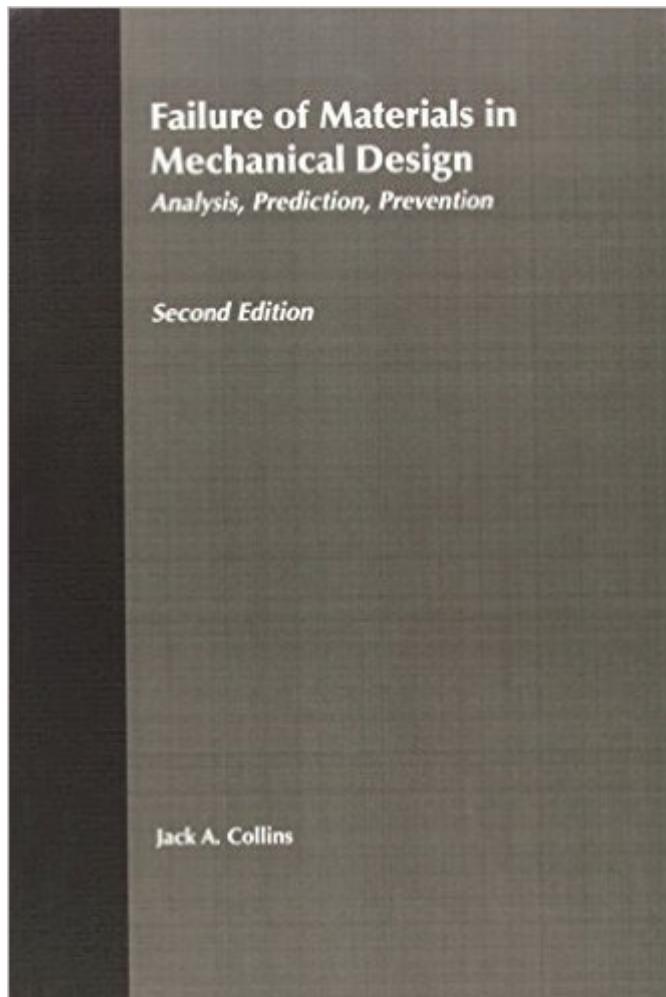


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# Failure Of Materials In Mechanical Design: Analysis, Prediction, Prevention, 2nd Edition



## Synopsis

Covers the basic principles of failure of metallic and non-metallic materials in mechanical design applications. Updated to include new developments on fracture mechanics, including both linear-elastic and elastic-plastic mechanics. Contains new material on strain and crack development and behavior. Emphasizes the potential for mechanical failure brought about by the stresses, strains and energy transfers in machine parts that result from the forces, deflections and energy inputs applied.

## Book Information

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Average Customer Review: 4.2 out of 5 starsÂ  See all reviewsÂ  (4 customer reviews)

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## Customer Reviews

This book has a lot of information, no doubt about it. And you may find some things in it that you'll be hard-pressed to find elsewhere (such as non-linear damage theories, fretting, shock and impact, etc). However, the book is quite theoretical, and information is scattered over various chapters, sometimes making it difficult to find what you're looking for. And when you do find it, the information is often not presented in a precise and detailed manner, which is important whenever you attempt to extend theory to real-life problems. I found this to be the case with the strain-based fatigue discussion, and especially the fracture mechanics coverage, which is cursory at best. I recommend that you first check out Dowling's book ("Mechanical Behavior of Materials"). I have found it to be much more useful.

It is a very good book. Gives a broad explanation of failure considerations in the mechanical design

process. It is complemented with examples that help to understand. It is a very technical book. Do not expect to pretty color pictures. Math is stated in a sequential way that can be understood pretty easily. When discussing a topic recalls some basics before touching particular details. It is not an introductory book. A book on mechanical of materials would be a excellent complement. Excellent as a reference.

Good addition to my library.

Great Book

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