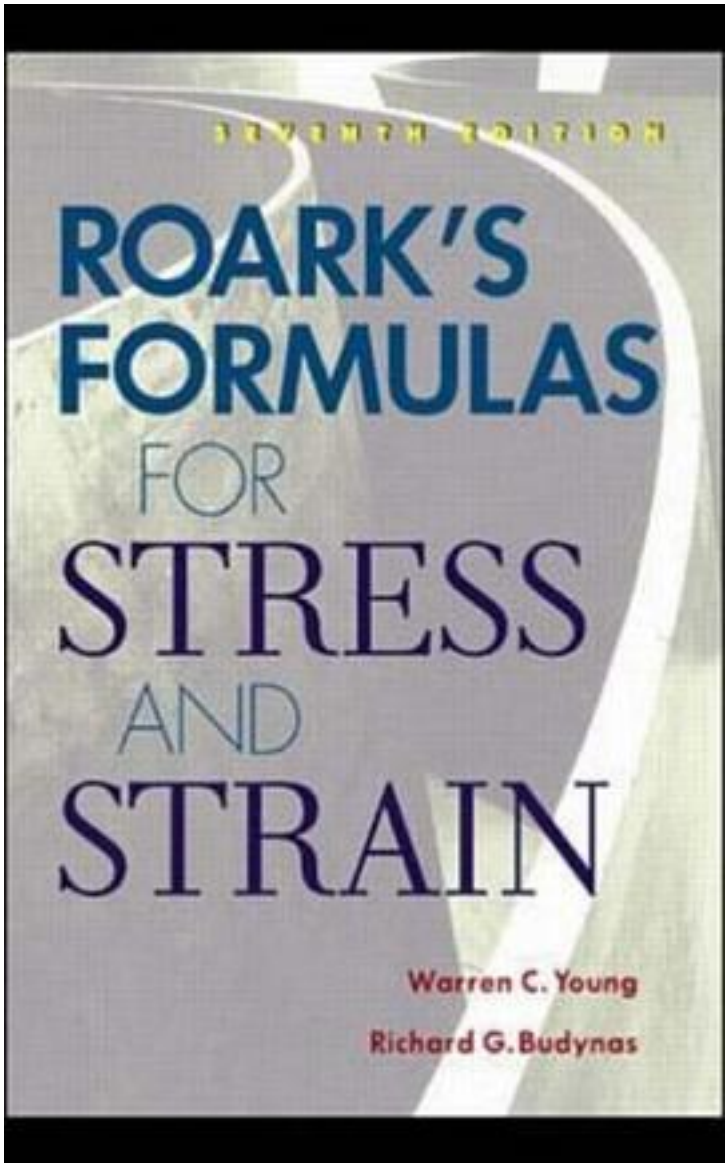
Roark's Formulas for Stress and Strain



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著者:Young, Warren C.; Budynas, Richard; Sadegh, Ali

出版者:

出版时间:2011-11

装帧:

isbn:9780071742474

The definitive guide to stress and strain formulas--fully revised and updated The first revision in 10 years, Roark's Formulas for Stress and Strain, Eighth Edition presents formulas and principles of strength of materials meeting the need of design engineers, particularly mechanical engineers. This classic volume provides equations and diagrams of structural properties in an easy-to-use, thumb-through format. The new edition now includes a summary of tables and formulas at the end of each chapter for the ease of reference. All references are now updated and a wealth of new material--25%--has been added for mechanical and structural engineers. This is a major and timely revision of the standard reference for student and engineers alike. Roark's Formulas for Stress and Strain, Eighth Edition features 25% new material Mohr's circle table and Fatigue Stress Formula Expanded coverage of composite materials Tables of modulus of elasticity of materials, yield strength, and other mechanical properties of materials for design engineers A chapter on stresses in gears, shafts, and other machine elements Welding formulas, stresses in welding, and elements such as bolts and rivets Coverage of vibration and stresses in rotating discs A section on biomechanics and stresses in hard (bone) and soft (muscles, ligaments) tissues A section on nanotechnology Graphs, charts, tables, and formulas for quick reference and ease of study Comprehensive coverage: Stress and Strain: Important Relationships; The Behavior of Bodies Under Stress; Principles and Analytical Methods; Numerical Methods; Experimental Methods; Tension, Compression, Shear, and Combined Stress; Beams; Flexure of Straight Bars; Bending of Curved Beams; Torsion; Flat Plates; Columns and Other Compression Members; Shells of Revolution; Pressure Vessels; Pipes; Bodies in Contact Undergoing Direct Bearing and Shear Stress; Elastic Stability; Dynamic and Temperature Stresses; Stress Concentration Factors; Properties of a Plane Area; Composite Materials

作者介绍:

目录:

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