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Minimum Weight Design; 4.7 Influence of Axial Forces; 4.8 Limit Analysis of Space Frames; Problems; Chapter 5. Further Solutions of Elastoplastic Problems; 5.1 Expansion of a Thick Spherical Shell; 5.2 Expansion of a Thick-Walled Tube; 5.3 Thermal Stresses in a Thick-Walled Tube; 5.4 Thermal Stresses in a Thick Spherical Shell; 5.5 Pure Bending of a Curved Bar; 5.6 Rotating Discs and Cylinders; 5.7 Infinite Plate with a Circular Hole; 5.8 Yielding Around a Cylindrical Cavity; Problems; Chapter 6. Theory of the Slipline Field
6.1 Formulation of the Plane Strain Problem 6.2 Properties of Slipline Fields and Hodographs; 6.3 Stress Discontinuities in Plane Strain; 6.4 Construction of Slipline Fields and Hodographs; 6.5 Analytical and Matrix Methods of Solution; 6.6 Explicit Solutions for Direct Problems; 6.7 Some Mixed Boundary-Value Problems; 6.8 Superposition of Slipline Fields; Problems; Chapter 7. Steady Problems in Plane Strain; 7.1 Symmetrical Extrusion Through Square Dies; 7.2 Unsymmetrical and Multihole Extrusion; 7.3 Sheet Drawing Through Tapered Dies; 7.4 Extrusion Through Tapered Dies
7.5 Extrusion Through Curved Dies 7.6 Ideal Die Profiles in Drawing and Extrusion; 7.7 Limit Analysis of Plane Strain Extrusion; 7.8 Cold Rolling of Strips; 7.9 Analysis of Hot Rolling; 7.10 Mechanics of Machining; Problems; Chapter 8. Nonsteady Problems in Plane Strain; 8.1 Indentation by a Flat Punch; 8.2 Indentation by a Rigid Wedge; 8.3 Compression of a Wedge by a Flat Die; 8.4 Cylindrical Depression in a Large Block; 8.5 Compression Between Smooth Platens; 8.6 Compression Between Rough Platens; 8.7 Yielding of Notched Bars in Tension; 8.8 Bending of Single-Notched Bars
8.9 Bending of Double-Notched Bars

Sommario/riassunto

Plasticity is concerned with the mechanics of materials deformed beyond their elastic limit. A strong knowledge of plasticity is essential for engineers dealing with a wide range of engineering problems, such as those encountered in the forming of metals, the design of pressure vessels, the mechanics of impact, civil and structural engineering, as well as the understanding of fatigue and the economical design of structures. Theory of Plasticity is the most comprehensive reference on the subject as well as the most up to date -- no other significant Plasticity reference has been

2. Record Nr.	UNINA9910557372103321
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Titolo	Perspectives on Tannins
Pubbl/distr/stampa	Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021
Descrizione fisica	1 online resource (146 p.)
Soggetti	Biology, life sciences Research & information: general
Lingua di pubblicazione	Inglese
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Sommario/riassunto	Tannins are a family of versatile, natural phenolic biomolecules whose key role is to protect plants against insects and fungi. They are also valuable in use for humans. We show tannins' antioxidant and antibacterial properties, in addition to their potential application in the food industry. We prove the accessibility of condensed tannins to a wide range of potential applications, including NH3 neutralizer, the building block of numerous porous materials, such as foams, organic, and carbon gels. Finally, they are known as wood adhesives, heavy metal scavengers, and corrosion inhibitors. With this book, we want to present the most promising perspectives of tannin.