Appendix: Orthogonal Curvilinear Coordinates

Cylindrical Coordinates

The position of a typical particle is defined by the coordinates (r, θ, z) taken in the radial, circumferential, and axial directions, respectively. If the associated components of the velocity are denoted by (u, v, w), respectively, then the components of the true strain rate are

$$\dot{\varepsilon}_r = \frac{\partial u}{\partial r} \qquad \dot{\gamma} r\theta = \frac{1}{2}\left(\frac{\partial \mathrm{v}}{\partial r} - \frac{\mathrm{v}}{r} + \frac{1}{r}\frac{\partial u}{\partial \theta}\right),$$

$$\dot{\varepsilon}_\theta = \frac{1}{r}\left(u + \frac{\partial \mathrm{v}}{\partial \theta}\right), \quad \dot{\gamma}\theta_z = \frac{1}{2}\left(\frac{\partial \mathrm{v}}{\partial z} + \frac{1}{r}\frac{\partial w}{\partial \theta}\right),$$

$$\dot{\varepsilon}_z = \frac{\partial w}{\partial z}, \qquad \dot{\gamma} rz = \frac{1}{2}\left(\frac{\partial u}{\partial z} + \frac{\partial w}{\partial r}\right).$$

If σ_r, σ_θ, and σ_z denote the normal stresses and $\tau_{r\theta}$, $\tau_{\theta z}$, and τ_{rz} the shear stresses, then the equations of equilibrium in the absence of body forces are

$$\frac{\partial \sigma_r}{\partial r} + \frac{1}{r}\frac{\partial \tau_{r\theta}}{\partial \theta} + \frac{\partial \tau_{rz}}{\partial z} + \frac{\sigma_r - \sigma_\theta}{r} = 0,$$

$$\frac{\partial \tau_{r\theta}}{\partial r} + \frac{1}{r}\frac{\partial \sigma_\theta}{\partial \theta} + \frac{\partial \tau_{\theta z}}{\partial z} + \frac{2\tau_{r\theta}}{r} = 0,$$

$$\frac{\partial \tau_{rz}}{\partial z} + \frac{1}{r}\frac{\partial \tau_{\theta z}}{\partial \theta} + \frac{\partial \sigma_z}{\partial z} + \frac{\tau_{rz}}{r} = 0.$$

Spherical Coordinates

The coordinate system is defined by (r, ϕ, θ), where r is the length of the radius vector, ϕ is the angle made by the radius vector with a fixed axis, and θ is the angle measured round this axis. If the velocity components in the coordinate directions are denoted by (u, v, w), then the components of the true strain rate are

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$$\dot{\varepsilon}_r = \frac{\partial u}{\partial r}, \qquad \dot{\gamma}_{r\phi} = \frac{1}{2}\left(\frac{\partial \mathrm{v}}{\partial r} - \frac{v}{r} + \frac{1}{r}\frac{\partial u}{\partial \phi}\right),$$

$$\dot{\varepsilon}_\phi = \frac{1}{r}\left(u + \frac{\partial v}{\partial \phi}\right), \qquad \dot{\gamma}_{r\phi} = \frac{1}{2}\left(\frac{1}{r}\frac{\partial w}{\partial \phi} - \frac{w}{r}\cot\phi + \frac{1}{r\sin\phi}\frac{\partial \mathrm{v}}{\partial \theta}\right),$$

$$\dot{\varepsilon}_\theta = \frac{1}{r}\left(u + v\cot\phi + \operatorname{cosec}\phi\frac{\partial w}{\partial \theta}\right), \qquad \dot{\gamma}_{r\theta} = \frac{1}{2}\left(\frac{\partial w}{\partial r} - \frac{w}{r} + \frac{1}{r\sin\phi}\frac{\partial u}{\partial \theta}\right).$$

Denoting the normal stresses by σ_r, σ_ϕ, and σ_θ and the shear stresses by $\tau_{r\phi}$, $\tau_{\phi\theta}$, and $\tau_{r\theta}$, the equations of equilibrium in the absence of body forces can be written as

$$\frac{\partial \sigma_r}{\partial r} + \frac{1}{r}\frac{\partial \tau_{r\phi}}{\partial \phi}\frac{1}{r\sin\phi}\frac{\partial \tau_{r\theta}}{\partial \theta} + \frac{1}{r}\left(2\sigma_r - \sigma_\phi - \sigma_\theta + \tau_{r\phi}\cot\phi\right) = 0,$$

$$\frac{\partial \tau_{r\phi}}{\partial r} + \frac{1}{r}\frac{\partial \sigma_\phi}{\partial \phi}\frac{1}{r\sin\phi}\frac{\partial \tau_{\phi\theta}}{\partial \theta} + \frac{1}{r}\left\{\left(\sigma_\phi - \sigma_\theta\right)\cot\phi + 3\tau_{r\phi}\right\} = 0,$$

$$\frac{\partial \tau_{r\theta}}{\partial r} + \frac{1}{r}\frac{\partial \tau_{\phi\theta}}{\partial \phi} + \frac{1}{r\sin\phi}\frac{\partial \sigma_\theta}{\partial \theta} + \frac{1}{r}\left(3\tau_{r\theta} + 2\tau_{\phi\theta}\cot\phi\right) = 0.$$

When the deformation is infinitesimal, the preceding expressions for the components of the strain rate may be regarded as those for the strain itself, provided the components of the velocity are interpreted as those of the displacement.

References

Abrahamson, G.R. and Goodier, J.N. (1966), Dynamic Flexural Buckling of Thin Rods Within an Axial Plastic Compressive Wave, *J. Appl. Mech.*, **33**, 241.

Abramowicz, W. and Jones, N. (1984), Dynamic Axial Crushing of Circular Tubes, *Int. J. Impact Engng*, **2**, 263.

Ades, C.S. (1957), Bending Strength of Tubes in the Plastic Range, *J. Aeronaut. Sci.*, **24**, 505.

Adie, J.F. and Alexander, J.M. (1967), A Graphical Method of Obtaining Hodographs to Axisymmetric Problems, *Int. J. Mech. Sci.*, **9**, 349.

Aizawa, T., Murata, M. and Suzuki, H. (1990), Electromagnetic Tube Bulging by the Direct Electrode Contact Method and the Solenoidal Coil Method, *Proc. 3rd Int. Conf. Technol. Plasticity*, Kyoto, Japan, p. 1593.

Akserland, E.L. (1965), Refinement of Upper Critical Loading of Pipe Bending Taking Account of Geometric Nonlinearity (in Russian), Mekhanika: Machinostroenic, *Izv. AkadNauk, SSSR*, **4**, 123.

Al-Hassani, S.T.S. and Johnson, W. (1969), The Dynamics of the Fragmentation Process for Spherical Bombs, *Int. J. Mech.*, **11**, 811.

Alexander, J.M. (1960a), An Appraisal of the Theory of Deep Drawing, *Metall. Rev.*, **5**, 349.

Alexander, J.M. (1960b), An Approximate Analysis of the Collapse of Thin Cylindrical Shells Under Axial Loading, *Quart. J. Mech. Appl. Math.*, **13**, 10.

Alexander, J.M., Brewer, R.C. and Rowe, G.W. (1987), *Manufacturing Technology*, Vols. 1 and 2, Ellis Horwood, Chichester.

Alexander, J.M. and Ford, H. (1954), On Expanding a Hole from Zero Radius in a Thin Infinite Plate, *Proc. Roy. Soc. London Ser. A*, **226**, 543.

Alexander, J.M and Lengyel, B. (1971), *Hydrostatic Extrusion*, Mills and Boon, London.

Alter, B.E.K. and Curtis, C.W. (1956), The Effect of Strain Rate on the Propagation of a Plastic Strain Pulse Along a Lead Bar, *J. Appl. Mech.*, **27**, 1079.

Anderson C.A. and Shield, R.T. (1966), On the Validity of the Plastic Theory of Structures for Collapse Under Highly Localized Loading, *J. Appl. Mech.*, **33**, 629.

Apsden, R.J. and Campbell, J.D. (1966), The Effect of Loading Rate on the Elastic-Plastic Flexure of Steel Beams, *Proc. Roy. Soc. London Ser. A*, **290**, 266.

Ariaratnam, S.T. and Dubey, R.N. (1969), Instability in an Elastic-Plastic Cylindrical Shell Under Axial Compression, *J. Appl. Mech.*, **36**, 47.

Asaro, R.J. (1983), Micromechanics of Crystals and Polycrystals, *Adv. in Appl. Mech.*, **23**, 1.

Ashwell, D.G. (1959), On the Large Deflection of a Spherical Shell with an Inward Point Load, *Proc. IUTAM on Theory of Thin Elastic Shells, Delft*.

Atkins, A.G. and Caddell, R.M. (1968), The Incorporation of Work-Hardening and Redundant Work in Rod Drawing Analysis, *Int. J. Mech. Sci.*, **10**, 15.

Aung, M., Wang, C.M. and Chakrabarty, J. (2005), Plastic Buckling of Moderately Thick Annular Plates, *Int. J. Struct. Stab. Dynamics*, **5**, 337.

Avitzur, B. (1965), Analysis of Metal Extrusion, *J. Engng. Indust., Trans. ASME*, **86**, 305.

Avitzur, B. (1968), Analysis of Central Bursting Defects in Drawing and Extrusion, *J. Engng. Indust., Trans. ASME,* **90**, 79.

Avitzur, B. (1980), *Metal Forming, the Application of Limit Analysis*, Marcfel Dekker, New York.

Avitzur, B. (1983), *Handbook of Metal Forming Processes*, Wiley, New York.

Azrin, M. and Backofen, W.A. (1970), The Deformation and Failure of Biaxially Stretched Sheets, *Metall. Trans.*, **1A**, 2857.

Babcock, CD. (1983), Shell Stability, *J. Appl. Mech.*, **50,** 935.

Backman, ME. and Goldsmith, W. (1978), The Mechanics of Penetration of Projectiles into Targets, *Int. J. Engng. Sci.*, **16**, 1.

Backof–en, W.A., Turner, I.R., and Avery, D.H. (1964), Superplasticity in an Al-Zn Alloy, *Trans. Amen Soc. Metals*, **57**, 980.

Bailey, J.A., Naos, S.L., and Nawab, K.C. (1972), Anisotropy in Plastic Torsion, *J. Basic Engng., Trans. ASME*, **94**, 231.

Baker, J.F., Hörne, M.R., and Roderick, J.W. (1949), The Behaviour of Continuous Stanchions, *Proc. Roy. Soc. London Ser. A.*, **198,** 493.

Baker, W.E. (1960), The Elastic-Plastic Response of Thin Spherical Shells to Internal Blast Loading, *J. Appl. Mech.*, **27**, 139.

Balen, R. and Abdul-Latif, A. (2007), Quasi-Static Plastic Buckling of Tubular Structures Used as an Energy Absorber, *J. Appl. Mech.*, **74**, 628.

Balendra, R. and Travis, F.W. (1970), Static and Dynamic Blanking of Varying Hardness, *Int. J. Mack Tool. Des. Res.*, **10**, 249.

Baltov, A. and Sawczuk, A. (1965), A Rule of Anisotropic Hardening, *Acta Mechanica*, **1**, 81.

Banerjee, A.K. and Malvern, L.E. (1975), Computation of Incremental Torsional Plastic Waves with Rate-Dependent Models, *Int. J. Solids Struct.*, **11**, 347.

Bardi, F.C. and Kyriakides, S. (2006), Plastic Buckling of Circular Tubes Under Axial Compression, Part 1, Experiments, *Int. J. Mech. Sci.*, **48**, 830.

Bardi, F.C. Kyriakides, S. and Yun, H.D. (2006), Plastic Buckling of Circular Tubes Under Axial Compression, Part 2: Analysis, *Int. J. Mech. Sci.*, **48**, 842.

Barlat, F. and Lian, J. (1989), Plastic Behavior and Strechability of Sheet Metals, Part 1, A Yield Function for Orthotropic Sheets Under Plane Stress Conditions, *Int. J. Plasticity*, **5**, 51.

Batdorf, S.R. (1949), Theories of Elastic-Plastic Buckling, *J. Aeronaut. Sci.*, **16**, 405.

Batterman, S. (1964), Load-Deflection Behavior of Shells of Revolution, *J. Engng. Mech. Div., Proc. ASCE*, **90**, EM6, 4167.

Batterman, S. (1965), Plastic Buckling of Axially Compressed Cylindrical Shells, *AIAA J.*, **3**, 316.

Batterman, S. (1968), Free Edge Buckling of Axially Compressed Cylindrical Shells, *J. Appl. Mech.*, **35**, 73.

Batterman, S. (1969), Plastic Buckling of an Externally Pressurized Complete Spherical Shell, *J. Engng. Mech. Div., Proc. ASCE*, **95**, 433

Bell, J.F. (1960), The Propagation of Large Amplitude Waves in Annealed Aluminum, *J. Appl. Phys.*, **31**, 277.

Bell, J.F. (1968), *The Physics of Large Deformation of Crystalline Solids*, Springer Tracts in Natural Philosophy, Vol. 14, Springer-Verlag, Berlin.

Bell, J.F. (1973), *The Experimental Foundations of Solid Mechanics*, Handbuch derPhysik, Vol. VI, Springer-Verlag, Berlin.

Bell, J.F. and Stein, A. (1962), The Incremental Loading Wave in the Pre-stressed Plastic Field, *J. Mecan.*, **1**, 395.

Berveiller, M. and Zaoui, A. (1979), An Extension of the Self-Consistent Scheme to Plastically Flowing Polycrystals, *J. Mech. Phys. Solids*, **26**, 325.

Bianchi, G. (1964), Some Experimental and Theoretical Studies on the Propagation of Longitudinal Plastic Waves in a Strain-Rate Dependent Material, in *IUTAM Symp. Stress Waves in Anelastic Solids* (eds., H. Kolsky and W. Prager), Springer-Verlag, Berlin, p. 101.

Biron, A. and Hodge, P.G. (1967), Limit Analysis of Rotationally Symmetric Shells Under Central Boss Loading by a Numerical Method, *J. Appl. Mech.*, **34**, 644.

Biron, A. and Sawczuk, A. (1967), Plastic Analysis of Rib-Reinforced Cylindrical Shells, *J. Appl. Mech.*, **34**, 37.

Bishop, J.F.W. (1953), On the Complete Solution to Problems of Deformation of a Plastic-Rigid Material, *J. Mech. Phys. Solids*, **2**, 43.

Bishop, J.F.W. (1958), On the Effect of Friction on Compression and Indentation Between Flat Dies, *J. Mech. Phys. Solids*, **6**, 132.

Bishop, J.F.W. and Hill, R. (1951), A Theory of the Plastic Distortion of a Polycrystalline Aggregate Under Combined Stresses, *Phil. Mag. Ser*. 7, **42**, 414.

Bishop, J.F.W., Hill, R. and Mott, N.F. (1945), The Theory of Indentation and Hardness Tests, *Proc. Roy. Phys. Soc.*, **57**, 147.

Bland, D.R. (1957), The Associated Flow Rule of Plasticity, *Mech. Phys. Solids*, **6**, 71.

Bleich, H.H. and Salvadori, N.G. (1953), Impulsive Motion of Elastic-Plastic Beams, *Proc. ASCE*, **79**, 287.

Bijlaard, P.P. (1949), Theory and Tests on the Plastic Stability of Plates and Shells, *J. Aeronaut. Sci.*, **16**, 529.

Bijlaard, P.P. (1956), Theory of Plastic Buckling of Plates and Application to Simply Supported Plates Subjected to Bending or Eccentric Compression in Their Plane, *Appl. Mech.*, **23**, 27.

Blazynski, T.Z. (1971), Optimization of Die Design in the Extrusion of Rod, *Int. J. Mech. Sci.*, **13**, 113.

Blazynski, T.Z. (1976), *Metal Forming: Tool Profiles and Flow*, Macmillan, London.

Blazynski, T.Z. and Cole, I.M. (1960), An Investigation of the Plug Drawing Process, *Proc. Inst. Mech. Engrs.*, **174**, 797.

Bodner, S.R. and Symonds, PS. (1962), Experimental and Theoretical Investigation of the Plastic Deformation of Cantilever Beams Subjected to Impulsive Loading, *J. Appl. Mech.*, **29**, 719.

Bourne, L. and Hill, R. (1950), On the Correlation of the Directional Properties of Rolled Sheet in Tension and Cupping Tests, *Phil. Mag. Ser. 7*, **41**, 671.

Boyce, W.E. (1959), A Note on Strain-Hardening Circular Plates, *J. Mech. Phys. Solids*, **7**, 114.

Boyd, D.E. (1966), Dynamic Deformation of Circular Membranes, *J. Engng. Mech. Div., Trans. ASCE*, **92**, 1.

Bramley, A.N. and Mellor, P.B. (1966), Plastic Flow in Stabilized Sheet Steel, *Int. J. Mech. Sci.*, 8 101.

Brazier, L.G. (1926), On the Flexure of Thin Cylindrical Shells and Other Sections, *Proc. Roy. Soc. London Ser. A*, **116**, 104.

Bridgman, P.W. (1944), Stress Distribution in the Neck of a Tension Specimen, *Trans. Amer. Soc. Metals*, **32**, 553.

Bridgman, P.W. (1945), Effects of High Hydrostatic Pressure on the Plastic Properties of Metals, *Rev. Mod. Phys*., **17**, 3.

Bridgman, P.W. (1952), *Studies in Large Plastic Flow and Fracture*, McGraw-Hill, New York.

Brooks, G.M. (1987), Elastic-Plastic Ring Loaded Cylindrical Shells, *J. Appl. Mech.*, **54**, 597.

Brooks, G.M. (1988), Elastic-Plastic Ring-Loaded Cylindrical Shells, *J. Appl. Mech.* **55**, 761.

Brooks, G.M. and Leung, C.P. (1989), Elastic-Plastic Analysis of a Radially Loaded Spherical Shell, *J. Press. Vess. Technol., Trans. ASME*, **111**, 39.

Budiansky, B. (1959), A Reassessment of Deformation Theories of Plasticity, *J. Appl. Mech.*, **26**, 259.

Budiansky, B. and Wang, N.M. (1966), On the Swift Cup Test, *J. Mech. Phys. Solids*, **14**, 357.

Budiansky, B. and Wu, T.Y. (1962), Theoretical Prediction of Plastic Strains in Polycrystals, *Proc. 4th US Nat. Congr. Appl. Mech.*, p. 1175.

Bushnell, D. (1982), Plastic Buckling of Various Shells, *J. Pressure Vessels Technol, Trans. ASME*, **104**, 51.

Bushnell, D. and Galletly, G.D. (1974), Comparison of Test and Theory for Nonsymmetric Elastic-Plastic Buckling of Shells of Revolution, *Int. J. Solids Struct.*, **10**, 1271.

Caddell, R.M. and Atkins, A.G. (1968), Optimum Die Angles and Maximum Attainable Reductions in Rod Drawing, *J Engng. Indust., Trans. ASME*, **91**, 664.

Calder, C.A. and Goldsmith, W. (1971), Plastic Deformation and Perforation of Thin Plates Resulting from Projectile Impact, *Int. J. Solids Struct.*, **7**, 863.

Calentano, D.J., Cabezas, E.E. and Garcia, C.M. (2005), Analysis of the Bridgman Procedure to Characterize Mechanical Behavior of Materials in the Tensile Test, *J. Appl. Mech.*, **72**, 149.

Calladine, C.R. (1968), Simple Ideas in the Large Deflection Plastic Theory of Plates and Slabs, *Engineering Plasticity* (eds., J. Heyman and F. Leckie), p. 93, Cambridge University Press, UK.

Calladine, C.R. (1985), *Plasticity for Engineers*, Ellis Horwood, Chichester.

Calladine, C.R. (2000), A Shell Buckling Paradox, *Advances in the Mechanics of Plates and Shells* (ed., D. Durban and J.G. Symmonds), p. 119, Kulwer Academic Publishers, Netherland.

Campbell, J.D. (1954), The Yield of Mild Steel Under Impact Loading, *J. Mech. Phys. Solids*, **3**, 54.

Campbell, J.D. (1972), *Dynamic Plasticity of Metals*, Springer-Verlag, New York.

Campbell, J.D. (1973), Dynamic Plasticity: Macroscopic and Microscopic Aspects, *Mater. Sci. Engng.*, **12**, 3.

Carter, W.T. and Lee, D. (1986), Further Analysis of Axisymmetric Upsetting, *J. Manuf. Sci. Eng., Trans. ASME*, **108**, 165.

Casey, J. and Naghdi, P.M. (1981), On the Characterization of Strain Hardening in Plasticity, *J. Appl. Mech.*, **48**, 285.

Celentano, J., Cabezas, E.E., and Garcia, G.M. (2005), Analysis of the Bridgeman Procedure to Characterize Mechanical Behavior of Materials in the Tensile Test: Experiments and Simulation, *J. Appl. Mech.*, **72**, 149.

Chadwick, P., Cox, A.D., and Hopkins, H.G. (1964), Mechanics of Deep Underground Explosions, *Phil. Trans. Roy. Soc*, **256**, 235.

Chaboche, J.L. (1986), Time Independent Constitutive Theories for Cyclic Plasticity, *Int. J. Plasticity*, **2**, 149.

Chakrabarty, J. (1969a), On Uniqueness and Stability in Rigid/Plastic Solids, *Int. J. Mech. Sci*, **11**, 723.

Chakrabarty, J. (1969b), On the Problem of Uniqueness Under Pressure Loading, *Zeit. angew. Math. Phys*, **20**, 696.

Chakrabarty, J. (1970a), A Theory of Stretch Forming Over Hemispherical Punch Heads, *Int. J. Mech. Sei.*, **12**, 315.

Chakrabarty, J. (1970b), A Hypothesis of Strain-Hardening in Anisotropic Plasticity, *Int. J. Mech. Sei.*, **12**, 169.

Chakrabarty, J. (1971), Elastic-Plastic Expansion of a Circular Hole in an Infinite Plate of Variable Thickness, *Int. J. Mech. Sei.*, **13**, 439.

Chakrabarty, J. (1972), The Necking of Cylindrical Bars Under Lateral Fluid Pressure, *Proc. 13th MTDR Conference, Birmingham UK*, p. 565.

Chakrabarty, J. (1973), Plastic Buckling of Cylindrical Shells Subjected to External Fluid Pressure, *Z. angew. Math. Phys.*, **24**, 270.

Chakrabarty, J. (1974), Influence of Transverse Anisotropy on the Plastic Collapse of Plates and Sheels, *J. Eng. Indust., Trans. ASME*, **97**, 125.

Chakrabarty, J. (1993a), A New Yield Function for Planar Anisotropy in Sheet Metals, *Proc. Int. Conf. Adv. Mater. Process. Technol.*, Dublin City University Press, Dublin, p. 1181.

Chakrabarty, J. (1993b), An Analysis of Axisymmetric Extrusion Including Redundant Shear and Strain-Hardening, *Advances in Engineering Plasticity and its Applications* (ed., W.B.Lee), Elsevier, Amsterdam, p. 901.

Chakrabarty, J. (1997), Plastic Instability and Forming Limits in Anisotropic Sheet Metal, Proc. 32nd Int. MATADOR Conf, Macmillan Press, p. 373.

Chakrabarty, J. (1998), Large Deflections of a Clamped Circular Plate Pressed by a Hemispherical-Headed Punch, *Metals and Materials*, **4**, 680.

Chakrabarty, J. (2002), Influence of Anisotropy on the Plastic Buckling of Rectangular Plates, *Proc. 2nd int. conf. on Structural Stability and Dynamics*, World Scientific, p. 448.

Chakrabarty, J. (2006), *Theory of Plasticity*, third edition, Elsevier, Oxford.

Chakrabarty, J. and Alexander, J.M. (1970), Hydrostatic Bulging of Circular Diaphragms, *J. Strain Anal.*, **5**, 155.

Chakrabarty, J. and Chen F.K. (2005), Influence of Loading Path on the Plastic Instability Strain in Anisotropic Plane Sheets, *J. Mater. Process. Technol.*, **166**, 218.

Chakrabarty, J., Lee, W.B. and Chan, K.C. (2000), An Analysis for the Plane Strain Bending of an Anisotropic Sheet in the Elastic/Plastic Range, *J. Mater. Process. Technol.*, **104**, 48.

Chakrabarty, J., Lee, W.B. and Chan, K.C. (2001), An Exact Solution for the Elastic/Plastic Bending of Anisotropic Sheet Metal Under Conditions of Plane Strasin, *Int. J. Mech. Sci.*, **43**, 21871.

Chakrabarty, J. and Mellor, P.B. (1968) A New Approach for Predicting the Limiting Drawing Ratio, *La Metullugia, Italiana*, **60**, 791.

Chakrabarty, J. and Wasti, S.T. (1971), On the Plastic Collapse of Cylindrical Shells Under Axial Compression, *METU J. Pure Appl. Sci.*, **4**, 1.

Chan, K.C. and Lee, W.B. (1990), A Theoretical Prediction of the Strain Path of Anisotropic Sheet Metal Deformed Under Uniaxial and Biaxial Stress State, *Int. J. Mech. Sci.*, **32**, 497.

Chan, K.S. (1985), Effects of Plastic Anisotropy and Yield Surface Shape on Sheet Metal Stretchability, Metall. Trans., **16A**, 629.

Chawalla, E. (1937), Aussermittig Gedruckte Baustahlstabe mit Elastisch Eingespannten Enden und Verschieden Grossen Angriffschebeln, *Der Stahlbau*, **15**, 49.

Chen, C.C. and Kobayashi, S. (1978), Deformation Analysis of Multi-Pass Bar Drawing and Extrusion, *Annals. CIRP*, **27**, 151.

Chen, C.T. and Ling, F.F. (1968), Upper Bound Solutions to Axisymmetric Extrusion Problems, *Int. J. Mech. Sci.*, **10**, 863.

Chen, C.C., Oh, S.I. and Kobayashi, S. (1979), Ductile Fracture in Axisymmetric Extrusion and Drawing, Part 1, Deformation Mechanics of Extrusion and Drawing, *J. Engng. Indust. Trans. ASME*, **101**, 23.

Chen, F.K. and Liu, J.H. (1997), Analysis of an Equivalent Model for the Finite Element Simulations of a Stamping Process, *Int. J. Mach. Tools Manuf*, **37**, 409.

Chen, W.F. and Han, D.J (1988), *Plasticity for Structural Engineers*, Springer-Verlag, New York.

Chen, W.F. (1970), General Solution of Inelastic Beam-Column Problems, *Engng. J. Mech. Div., Proc. ASCE*, **96**, EM4, 421.

Chen, W.F. and Astuta, T. (1976), *Theory of Beam Columns*, Vols. 1 and 2, McGraw-Hill, New York.

Chen, X.W. and Li, Q.M. (2003), Perforation of a Thick Plate by Rigid Projectiles, *Int. J. Impact Engng.* **28**, 743.

Cheng, S.Y., Ariaratnam, S.T., and Dubey, R.N. (1971), Axisymmetric Bifurcation in an Elastic/Plastic Cylinder Under Axial Load and Lateral Hydrostatic Pressure, *Quart. Appl. Math.*, **29**, 41.

Chenot, L. and Wagoner, R.H. (2001), *Metal Forming Analysis*, Cambridge University Press, Cambridge.

Chenot, J.L. Feigeres, L., Lavarenne, B., and Salecon, J. (1978), A Numerical Application of the Slipline Field Method to Extrusion Through Conical Dies, *Int. J. Engng. Sci.*, **16**, 263.

Chern, J. and Nemat-Nasser, S. (1969), The Enlargement of a Hole in a Rigid-Workhardening Disk of Non-Uniform Initial Thickness, *J. Mech. Phys. Solids*, **17**, 271.

Chiang, D.C. and Kobayashi, S. (1966), The Effect of Anisotropy and Work-Hardening Characteristics on the Stress and Strain Distribution in Deep Drawing, J. Engng. Indust., **88**, 443.

Chitkara, N.R. and Bhutta, M.A. (1996), Near Net Shape Forging of Spur Gear Forms. An Analysis and Some Experiments, *Int. J. Mech. Sci.*, **38**, 891.

Chitkara, N.R. and Collins, I.F. (1974), A Graphical Technique for Constructing Anisotropic Slipline Fields, *Int. J. Mech. Sci.*, **16**, 241.

Chon, C.T. and Symonds, P.S. (1977), Large Dynamic Plastic Deflection of Plates by Mode Method, *J. Engng. Mech. Div., Trans. ASCE*, **103**, 169.

Chou, P.C. (1961), Perforation of Plates by High Speed Projectiles, in *Developments in Mechanics* (ed. J.E. Lay and L.E. Malvern), North Holland, 286.

Chu, C.C. (1984)), An Investigation of Strain Path Dependence of the Forming Limit Curve, Int. J. Solids Struct., **18**, 205.

Chu, E, and Xu, Y. (2001), An Elastoplastic analysis of Flange Wrinkling in Deep Drawing Process, *Int. J. Mech. Sci.*, **43**, 1421.

Chu, F.P.E. (1995), Springback in Stretch/Draw Sheet Forming, *Int. J. Mech. Sci.*, **37**, 327.

Chung, S.Y. and Swift, H.W. (1951), Cup Drawing from a Flat Blank, *Proc. Instn. Mech. Engrs.,* **165**, 199 (J.E. Lay and L.E. Malvern), North-Holland, Amsterdam, p. 286.

Chung, S.W. and Swift, H.W. (1952), A Theory of Tube Sinking, *J. Iron Steel Inst.*, **170**, 29.

Chung, W.J., Kim, Y.J. and Yang, D.Y. (1988), A Rigid/Plastic Finite Element Analysis of Hydrostatic Bulging of Elliptical Diaphragms Using Hill's New Yield Criterion, *Int. J. Mech. Sci.*, **31**, 391.

Cinquini, C, Lamblin, D., and Guerlement, G. (1977), Variational Formulation of the Optimal Plastic Design of Circular Plates, *Computer Methods Appl. Mech. Engng.*, **11**, 19.

Cinquini, C. and Zanon, P. (1985), Limit Analysis of Circular and Annular Plates, *Ingenieur-Archiv*, **55**, 157.

Clifton, R.J. (1966), An Analysis of Combined Longitudinal and Torsional Plastic Waves in a Thin-Walled Tube, *Proc. 5th U.S. Nat. Congr. Appl. Mech.*, 456.

Clifton, R.J. (1973), Plastic Waves: Theory and Experiment, in *Mechanics Today* (ed., Nemal-Nasser), Pergamon Press, New York, p. 102.

Clifton, R.J. and Bodner, S.R. (1966), An Analysis of Longitudinal Elastic-Plastic Pulse Propagation, *J. Appl. Mech.*, **33**, 248.

Cline, C.B. and Jahsman, W.E. (1967), Response of a Rigid-Plastic Ring to Impulsive Loading, *J. Appl. Mech.*, **34**, 329.

Collins, I.F. (1968), The Upper Bound Theorem for Rigid/Plastic Solids Generalized to Include Coulomb Friction, *J. Mech. Phys. Solids*, **17**, 323.

Collins, I.F. (1971), On the Analogy Between Plane Strain and Plate Bending Solutions in Rigid/perfectly Plasticity Theory, *Int. J. Solids Struct.*, **7**, 1037.

Collins, I.F. (1973), On the Theory of Rigid/Perfectly Plastic Plates Under Uniformly Distributed Loads *Acta Mech.*, **18**, 233.

Collins, I.F. and Meguid, S.A. (1977), On the Influence of Hardening and Anisotropy on the Plane Strain Compression of Thin Metal Strips, J. Appl. Mech., **52**, 271.

Collins, I.F. and Williams, B.K. (1985), Slipline Fields for Axisymmetric Tube Drawing, *J. Mech. Eng. Sci.*, **27**, 225.

Conroy, M.F. (1952), Plastic-Rigid Analysis of Long Beams Under Transverse Impact Loading, *J. Appl. Mech.*, **19**, 465.

Conroy, M.E (1956), Plastic Deformation of Semi-Infinite Beams Subject to Transverse Impact Loading, *J. Appl. Mech.*, **23**, 239.

Conroy, M.F. (1969), Rigid-Plastic Analysis of a Simply Supported Circular Plate due to Dynamic Circular Loading, *J. Franklin Inst.*, **288**, 121.

Coon, M.D. and Gill, S.S. (1968), Effect of Change of Geometry on the Rigid/Plastic Limit Load of Cylinders, *Int. J. Mech. Sei.*, **10**, 355.

Corona, E. and Kyriakides, S. (1988), On the Collapse of Inelastic Tubes Under Combined Bending and Pressure, *Int. J. Solids Struct.*, **24**, 505.

Correia, J.P.D., Ferron, G. and Moreira, L.P. (2003), Analytical and Experimental Investigation of Wrinkling for Deep Drawn Anisotropic Metal Sheets, *Int. J. Mech. Sci.*, **45**, 1167.

Cotter, B.A. and Symonds, P.S. (1955), Plastic Deformation of a Beam Under Impulsive Loading, *Proc. ASCE*, **81**, 675.

Cox, A.D. and Morland, L.W. (1959), Dynamic Plastic Deformations of Simply Supported Square Plates, *J. Mech. Phys. Solids*, **7**, 229.

Coulomb, C.A. (1773), Test on the Applications of the Rules of Maxima and Minima to Some Problems of the Statics Related to Architecture, *Mem. Math. Phys*., **7**, 343.

Craggs, J.W. (1954), Wave Motion in Plastic-Elastic Strings, *J. Mech. Phys. Solids*, **2**, 286.

Craggs, J.W. (1957), The Propagation of Infinitesimal Plane Waves in Elastic-Plastic Materials, *J. Mech. Phys. Solids*, **5**, 115.

Craggs, J.W. (1961), Plastic Waves, in *Progress in Solid Mechanics* (eds., I.N. Sneddon and R. Hill), Vol. 2, Chap. 4, North-Holland, Amsterdam.

Cristescu, N. (1960), Some Observations on the Propagation of Plastic Waves in Plates, in *Plasticity* (eds., E.H. Lee and P.S. Symonds), Pergamon Press, New York, p. 501.

Cristescu, N. (1963), On the Propagation of Elastic-Plastic Waves in Metallic Rods, *Bull. Acad. Polon. Sci.*, **11**, 129.

Cristescu, N. (1964), Some Problems on the Mechanics of Extensible Strings, in *Stress Waves in Anelastic Solids* (eds., H. Kolsky and W. Prager), Springer-Verlag, Berlin, p. 118.

Cristescu, N. (1965), Loading/Unloading Criteria for Rate Sensitive Materials, *Arch. Mech. Stos.*, **11**, 291.

Cristescu, N. (1967), *Dynamic Plasticity*, North-Holland, Amsterdam.

Cristescu, N. (1970), The Unloading in Symmetric Longitudinal Impact of Two Elastic-Plastic Bars, *Int. J. Mech. Sci.*, **12**, 723.

Cristescu, N. (1972), A Procedure for Determining the Constitutive Equations for Materials Exhibiting Both Time-Dependent and Time-Independent Plasticity, *Int. J. Solids Struct.*, **8**, 511.

Cristescu, N. (1974), Rate-Type Constitutive Equations in Dynamic Plasticity, in *Problems of Plasticity* (ed., A. Sawczuk), Noordhoff International, Groningen, p. 287.

Cristescu, N. and Bell, J.F. (1970), On Unloading in the Symmetrical Impact of Two Aluminium Bars, in *Inelastic Behaviour of Solids* (eds., M.F. Kannienen et al.), McGraw-Hill, New York, p. 397.

Cristescu, N. and Suliciu, I. (1982), *Viscoplasticity*, Martinus Nijhoff, The Hague.

Crossland, B. (1954), The Effect of Fluid Pressure on Shear Properties of Metals, *Pwc. Instn. Mech. Engrs.*, **169**, 935.

Derbalian, K.A., Lee, E.H., Mallett, R.l. and McMeeking, R.M. (1978), Finite Element Metal Forming Analysis with Spatially Fixed Mesh, Applications of Numerical Methods to Forming Processes, *ASME, AMD*, **28**, 39.

Dafalias, Y.F. (1993), Planar Double-Slip Micromechanical Model for Polycrystal Plasticity, *Engng. Mech.*, *Trans. ASCE*, **119**, 1260.

Dafalias, Y.F. and Popov, E.P. (1975), A Model for Nonlinearly Hardening Materials for Complex Loading, *Acta Mech.*, **21**, 173.

Danyluk, H.T. and Haddow, J.B. (1965), Elastic/Plastic Flow Through a Converging Conical Channel, *Acta Mech.*, **7**, 35.

Davey, K. and Ward, M.J. (2002), A Practical Method for Finite Element Ring Rolling Simulation Using the ALE Flow Formulation, *Int. J. Mech. Sci*., **44**, 165.

Davidenkov, N.N. and Spiridonova, N.I. (1946), Analysis of Tensile Stress in the Neck of an Elongated Test Specimen, *Proc. ASTM.*, **46**, 1147.

Davies, R.M. and Hunter, S.C. (1963), The Dynamic Compression Testing of Solids by the Method of the Split Hopkinson Pressure Bar, *J. Mech. Phys. Solids*, **11**, 155.

Dean, T.H. (1970), Influence of Billet Inertia and Die Friction in Forging Processes, *Proc. 11th Int. M.T.D.R. Conf.*, Pergamon Press, Oxford.

De Juhasz, K.J. (1949), Graphical Analysis of Impact of Bars Stressed above the Elastic Range, *J. Franklin Inst.*, **248**, 15. and 113.

Demir, H.H. (1965), Cylindrical Shells Under Ring Loads, *Proc. ASCE, Struct. Engng. Div.*, **91**, 71.

Denton, A.A. and Alexander, J.M. (1963), On the Determination of Residual Stresses in Tubes, *J. Mech. Engng. Sci.*, **5**, 75.

Derbalian, K.A., Lee, E.H., Mallett, R.l. and McMeeking, R.M. (1978), Finite Element Metal Forming Analysis with Spatially Fixed Mesh, Applications of Numerical Methods to Forming Processes, *ASME, AMD*, **28**, 39.

DeRuntz, J.A. and Hodge, P.G. (1966), Significance of the Concentrated Load on the Limit Analysis of Conical Shells, *J. Appl. Mech.*, **33**, 93.

Desai, C.S. and Abel, J.F. (1972), *Introduction to the Finite Element Method*, Van Nostrand Reinhold, New York.

Desdo, D. (1971), Principal and Slipline Methods of Numerical Analysis in Plane and Axially Symmetric Deformations of Rigid/Plastic Media, *J. Mech. Phys. Solids*, **19**, 313.

Dillamore, I.L., Mella, P. and Hazel, R.I. (1972), Preferred Orientation and the Plastic Behavior of Sheet Metal, *Inst. Metal*., **100**, 50.

Dillons, O.W. (1968), Experimental Data on Small Plastic Deformation Waves in Annealed Aluminium, *Int. J. Solids Struct.*, **4**, 197.

Dinno, K.S. and Gill, S.S. (1965), The Limit Analysis of a Pressure Vessel Consisting of the Junction of a Cylindrical and a Spherical Shell, *Int. J. Mech. Sei.*, **7**, 21.

Dokmeci, M.C. (1966), A Shell of Constant Strength, Z. *Angew Math. Phys.*, **17**, 545.

Dodd, B. and Caddell, R.M. (1984), On the Anomalous Behaviour of Anisotropic Sheet Metals, *Int. J. Mech. Sci.*, **26**, 113.

Donnell, L.H. (1933), Stability of Thin Walled Tubes Under Torsion, NACA Report 479, pp. 1–24.

Dorn, J.F. (1949), Stress-Strain Relations for Anisotropic Plastic Flow, *J. Appl. Phys*., **20**, 15.

Donnel, L.H. (1930), Longitudinal Wave Transmission and Impact, *Trans. ASME*, **52**, 153.

Dowling, A.R., Harding, J. and Campbell, J.D. (1970), The Dynamic Punching of Metals, *J. Inst. Metals*, **98**, 215.

Drucker, D.C. (1951), A More Fundamental Approach to Plastic Stress-Strain Relations, *Proc. 1st. U.S. Nat. Congr. Appl. Mech.*, **1**, 487.

Drucker, D.C. and Palgen, L. (1981), On the Stress-Strain Relations Suitable for Cyclic and Other Loading, *J. Appl. Mech.*, **48**, 479.

Drucker, D.C., Prager, W. and Greenberg, H.J. (1952), Extended Limit Design Theorems for Continuous Media, *Quart. Appl. Math.*, **9**, 381.

Drucker, D.C. (1953), Limit Analysis of Cylindrical Shells Under Axially-Symmetric Loading, *Proc.* 1*st Midwestern Conf. Solid Mech., Urbana,* p. 158.

Drucker, D.C. and Hopkins, H.G. (1954),Combined Concentrated and Distributed Load on Ideally Plastic Circular Plates, *Proc. 2nd US Nat. Congr. Appl. Mech. (Ann Arbor)*, p. 517.

Drucker, D.C. and Shield, R.T. (1957), Bounds on Minimum Weight Design, *Quart. Appl. Math.*, **15**, 269.

Drucker, D.C. and Shield, R.T. (1959), Limit Analysis of Symmetrically Loaded Thin Shells of Revolution, *J. Appl. Mech.*, **26**, 61.

Drucker, D.C. and Shield, R.T. (1961), Design of Torispherical and Toriconical Pressure Vessel Heads, *J. Appl. Mech.*, **28**, 292.

Duffill, A.W. and Mellor P.B. (1969), A Comparison Between Conventional and Hydrostatic Extrusion Methods of Cold Extrusion Through Conical Dies, *Ann. of CIRP*, **17**, 97.

Dugdale, D.S. (1954), Cone Indentation Experiments, *J. Mech. Phys. Solids*, **2**, 265.

Duncan, J.L. and Johnson, W. (1968), The Ultimate Strength of Rectangular Anisotropic Diaphragms, *Int. J. Mech. Sci*., **10**, 143.

Durban, D. (1979), Axially Symmetric Radial Flow of Rigid-Linear Hardening Material, *J. Appl. Mech.,* **46**, 322.

Durban, D. (1986), Radial Stressing of Thin Sheets with Plastic Anisotropy, *Int. J. Mech. Sci*., **28**, 801.

Durban, D., Davidi, G. and Lior, D. (2001), Plastic Forming Processes Through Rotating Conical Dies, *J. Appl. Mech*., **68**, 894.

Durban, D. and Fleck, N.A. (1992), Singular Plastic Fields in Steady Penetration of a Rigid Cone, *J. Appl. Mech.*, **59**, 706.

Durban, D. and Zuckerman, Z. (1999), Elastoplastic Buckling of Rectangular Plates in Biaxial Compression/Tension, *Int. J. Mech. Sci*., **41**, 751.

Duwez, P.E. and Clark, D.S. (1947), An Experimental Study of the Propagation of Plastic Deformation Under Conditions of Longitudinal Impact, *Proc. ASTM*, **47**, 502.

Duwez, P.E., Clark, D.S., and Bohenblust, H.F. (1950), the Behaviour of Long Beams Under Impact Loading, *J. Appl. Mech.*, **7**, 27.

Eason, G. (1958), Velocity Fields for Circular Plates with the von Mises Yield Condition, *J. Mech. Phys. Solids*, **6**, 231.

Eason, G. (1959), The Load Carrying Capacity of Cylindrical Shells Subjected to a Ring of Force, *J. Mech. Phys. Solids*, **1**, 169.

Eason, G. (1960), The Minimum Weight Design of Circular Sandwich Plates, Z. *Angew. Math. Phys.*, **11**, 368.

Eason, G. (1961), The Elastic-Plastic Bending of a Simply Supported Plate, *J. Appl. Mech.*, **28**, 395.

Eason, G. and Shield, R.T. (1955), The Influence of Free Ends on the Load Carrying Capacities of Cylindrical Shells, *J. Mech. Phys. Solids*, **4**, 17.

Eason, G. and Shield, R.T. (1956), Dynamic Loading of Rigid-Plastic Cylindrical Shells, *J. Appl. Mech.*, **4**, 53.

Eason, G. and Shield, R.T. (1960), The Plastic Indentation of a Semi-Infinite Solid by a Rough Circular Punch, Z. *Angew. Math. Phys.*, **11**, 33.

Efron, L. and Malvern, L.E. (1969), Electromagnetic Velocity Transducer Studies of Plastic Waves in Aluminum Bars, *Experimental Mech.*, **9**, 255.

Eisenberg, M.A. (1976), A Generalization of the Plastic Flow Theory with Application of Cyclic Hardening and Softening Phenomena, *J. Engng. Mater. Technol, Trans. ASME*, **98**, 221.

El-Ghazaly, H.A. and Sherbourne, A.N. (1986), Deformation Theory for Elastic-Plastic Buckling Analysis of Plates Under Nonproportional Planar Loading, *Comput. Struct.*, **22**, 131.

El-Sebaie, M.G. and Mellor, P.B. (1972), Plastic Instability Conditions in the Deep-Drawing of a Circular Blank of Sheet Metal, *Int. J. Mech. Sci.*, **14**, 535.

El-Sebaie, M.G. and Mellor, P.B. (1973), Plastic Instability When Deep Drawing Into a High Pressure Medium, *Int. J. Mech. Sei.*, **15**, 485.

Engesser, F. (1889), Zur Knikung verwundener Stabe bei zusamengesetzter Belastung, *Z. Archit, Ingenieur,* **35**, 455.

Ewing, D.J.F. and Richards, C.E. (1973), The Yield Point Loads of Singly Notched Pin-Loaded Tensile Strips, *J. Mech. Phys. Solids*, **21**, 27.

Ewing, D.J.F. and Spurr, C.E. (1974), The Yield Point Loads of Symmetrically Notched Metal Strips, *J. Mech. Phys. Solids*, **22**, 37.

Ezra, A.A. (1958), The Plastic Response of a Simply Supported Beam Under Impact Loading, *Proc. 3rd U.S. Nat. Congr. Appl. Mech.*, 513.

Fliigge, W. (1960), Stresses in Shells, Springer-Verlag, Berlin.

Florence, A.L. (1965), Annular Plate Under a Transverse Line Impulse, *AIAA J.*, **3**, 1726.

Florence, A.L. (1966), Clamped Circular Rigid-Plastic Plates Under Blast Loading, *J. Appl. Mech.*, **33**, 256.

Florence, A.L. (1977), Response of Circular Plates to Central Pulse Loading, *Int. J. Solids Struct.*, **13**, 1091.

Flores, G. (2006), A Two-Dimensional Linear Assumed Strain Triangular Element for Finite Element Analysis, *J. Appl. Mech.*, **73**, 970.

Fogg, B. (1968), Theoretical Analysis for the Redrawing of Cylindrical Cups Through Conical Dies, *J. Mech. Engng. Sei.*, **10**, 141.

Flügge, W. (1932), Die Stabilität der Kreiszylinderschale, *Ingenieur-Archiv*, **3**, 24.

Fliigge, W. and Nakamura, T. (1965), Plastic Analysis of Shells of Revolution Under Axisymmetric Loads, *Ingenieur-Archiv*, **34**, 238.

Forrestal, M.J., Barr, N.S., and Luk, V.K. (1991), Penetrating of Strain-Hardening Targets with Rigid Spherical Nose Rods, *J. Appl. Mech.*, **58**, 7.

Forrestal, M.J. and Luk, V.K. (1988), Dynamic Spherical Cavity Expansion in a Compressible Elastic- Plastic Solid, *J. Appl. Mech.*, **55**, 275.

Forrestal, M.J., Okajima, K., and Luk, V.K. (1988), Penetration of 6061-T651 Aluminum Targets with Rigid Long Rods, *J. Appl. Mech.*, **55**, 755.

Freiberger, W. (1952), A Problem of Dynamic Plasticity. The Enlargement of a Circular Hole in a Flat Sheet, *Proc. Cambridge Philos. Soc.*, **48**, 135.

Freiberger, W. (1956), Minimum Weight Design of Cylindrical Shells, *J. Appl. Mech.*, **23**, 576.

Freiberger, W. and Tekinalp, B. (1956), Minimum Weight Design of Circular Plates, *J. Mech. Phys. Solids*, **4**, 294.

Fukui, S. and Hansson, A. (1970), Analytical Study of Wall Ironing Considering Work-Hardening, *Ann. 0f CIRP*, **18**, 593.

Gaydon, F.A. (1952), An Analysis of the Plastic Bending of a Thin Strip in its Plane, *J. Mech. Phys. Solids*, **1**, 103.

Gaydon, F.A. (1954), On the Yield Point Loading of a Square Plate with Concentric Circular Hole, *J. Mech. Phys. Solids*, **2**, 170.

Gaydon, F.A. and McCrum, A.W. (1954), A Theoretical Investigation of the Yield Point Loading of a Square Plate with a Central Circular Hole., *J. Mech. Phys. Solids*, **2**, 156.

Galiev, S.U. and Nechitailo, N.V. (1985), The Dynamics of Shape Changes, in Thin Plates and Shells of Revolution, *Acad. Sci. Ukrainian SSR*, Kiev.

Geckeier, J.W. (1928), Plastic Folding of the Walls of Hollow Cylinders and Some Other Folding Phenomena in Bowls and Sheets, *Zeit angew. Math. Mech.*, **8**, 341.

Gellin, S. (1979), Effect of an Axisymmetric Imperfection on the Plastic Buckling of an Axially Compressed Cylindrical Shell, *J. Appl. Mech.*, **46**, 125.

Gellin, S. (1980), The Plastic Buckling of Long Cylindrical Shells Under Pure Bending, *Int. J. Solids Struct.*, **16**, 397.

Gerard, G. (1957), Handbook of Structural Stability, Part I, Buckling of Flat Plates, NACA TN3781.

Gerard, G. (1962), *Introduction to Structural Stability Theory*, McGraw-Hill, New York.

Gill, S.S. (1964), The Limit Pressure for a Flush Cylindrical Nozzle in a Spherical Pressure Vessel, *Int. J. Mech. Sei.*, **6**, 105.

Gill, S.S. (1970), *The Stress Analysis of Pressure Vessels and Pressure Vessel Components*, Chapter 3, Pergamon Press, Oxford, U.K.

Gill, S.S. and Leckie, F.A. (1968), The Effect of Geometry Changes on the Application of Limit Analysis to the Design of Pressure Vessel Nozzles, *Int. J. Mech. Sei.*, **10**, 989.

Ghosh, A.K. (1977), The Influence of Strain Hardening and Strains Rate Sensitivity on Sheet Metal Forming, *J. Engng. Mat. Tech., Trans. ASME*, **99**, 264.

Ghosh, A.K. and Backofen, W.A. (1973), Strain Hardening and Instability in Biaxially Stretched Sheets, *Metall. Trans.*, **4A**, 1113.

Gjelsvik, A. and Lin, G.S. (1985), Plastic Buckling of Plates with Edge Frictional Shear Effects, *J. Engng. Mech. Div., Trans. ASCE*, **113**, 953.

Goel, R.P. and Malvern, L.E. (1970), Biaxial Plastic Simple Waves with Combined Isotropic and Kinematic Work-Hardening, *J. Appl. Mech.*, **37**, 1100.

Gordon, W.A., Van Tyne, D.J. and Sriram, S. (2000), Extrusion Through Spherical Dies- An Upper Bound Analysis, *J. Manuf. Engng., Trans. ASME*, **124**, 92.

Gotoh, M. (1977), A Theory of Plastic Anisotropy Based on a Yield Function of Fourth Order, *Int. J. Mech. Sci.*, **19**, 505.

Gotoh, M. (1978), A Finite Element Analysis of the Rigid/Plastic Deformation of the Anisotropic Deep Drawing Process Based on a Fourth Degree Yield Function – I, *Int. J. Mech. Sci.*, **20**, 423.

Gotoh, M. (1980), A Finite Element Analysis of the Rigid/Plastic Deformation of the Anisotropic Deep Drawing Process Based on a Fourth Degree Yield Function – II, *Int. J. Mech. Sci.*, **22**, 367.

Graf, A. and Hosford, W.F. (1990), Calculations of Forming Limit Diagrams, *Metall. Trans.*, **21A**, 87.

Graf, A. and Hosford, W.F. (1993), Calculations of Forming Limits for Changing Strain Paths, *Metall. Trans.*, **24A**, 2497.

Green, A.P. (1954a), A Theory of Plastic Yielding due to the Bending of Cantilevers and Fixed-Ended Beams—Part I, *J. Mech. Phys. Solids*, **3**, 1.

Green, A.P. (1954b), A Theory of Plastic Yielding due to Bending of Cantilevers and Fixed-Ended Beams—Part II, *J. Mech. Phys. Solids*, **3**, 143.

Goldsmith, W. (1960), *Impact*, Edward Arnold, London.

Goldsmith, W. and Finnegan, S.A. (1971), Penetration and Perforation Processes in Metal Targets at and above Ballistic Velocities, *Int. J. Mech. Sci.*, **13**, 843.

Goodier, J.N. (1968), Dynamic Buckling of Rectangular Plates in Sustained Plastic Compressive Flow, in *Engineering Plasticity* (eds., J. Heyman and FA. Leckie), Cambridge University Press, Cambridge, UK, p. 183.

Gu, W., Tang, W. and Liu, T. (1996), Dynamic Pulse Buckling of Cylindrical Shells Subjected to External Impulsive Loading, *J. Pressure Vessel Technoi*, **118**, 33.

Gurson, A.L. (1977), Continuum Theory of Ductile Rupture by Void Nucleation and Growth, *J. Engng. Mater. Technol.*, **99**, 2.

Gunasekera, J.S. and Hoshino, S. (1982), Analysis of Extrusion or Drawing of Polygonal Sections Through Straightly Converging Dies , *J. Engng. Indust., Trans. ASME*, **104**, 38.

Gunasekera, J.S. and Hoshino, S., (1985), Analysis of Extrusion of Polygonal Sections Through Streamlined Dies, *J. Engng. Indust., Trans. ASME*, **107**, 229.

Gunasekera, J.S. 1989, *Cad/Cam of Dies*, Ellis Horwood, Chicheste

Haar, A. and von Karman, Th. (1909), *Nachr. Ges. Wiss. Göttingen, Math. Phys. Kl.*, 204.

Haddow, J.B. (1962), Ideal Die Pressures for Axisymmetric Tube Extrusion, *Int. J. Mech. Sci.*, **4**, 447.

Haddow, J.B. (1965), On the Compression of a Thin Disc, *Int. J. Mech. Sci.*, **7**, 657.

Haddow, J.B. (1969), Yield Point Loading Curves for Circular Plates, *Int. J. Mech.* 5ci., **11**, 455.

Haddow, J.B. and Danyluk, H.T. (1964), Indentation of a Rigid-Plastic Semi-Infinite Medium by a Smooth Rigid Cone Fitted in a Prepared Cavity, *J. Mech. Sci.*, **5**, 1.

Haddow, J.B. and Johnson, W. (1962), Bounds for the Load to Compress Plastically a Square Disc Between Rough Dies, *Appl. Sci. Res.*, **A10**, 476.

Hailing, J. and Mitchell, L.A. (1965), An Upper Bound for Axisymmetric Extrusion, *Int. J. Mech. Sci.*, **7**, 277.

Hamada, H. (1985), In-Plane Buckling of Circular Plates, *Proc. J. Soc. Mech. Engrs.*, **51**, 1928.

Hardy, C, Baronnet, C.N. and Tordion, G.V. (1971), The Elasto-Plastic Indentation of a Half Space by a Rigid Sphere, *Int. J. Numer. Methods Engng.*, **3**, 451.

Hart, E.N. (1967), Theory of the Tensile Test, *Acta Metall.*, **15**, 351.

Hartley, P., Sturgess, C.E.N. and Rowe, G.W. (1979), Friction in Finite Element Analysis of Metal Forming Processes, *Int. J. Mech. Sci.* **21**, 301.

Hashmi, M.S.J. (1980), Strain Rate Sensitivity of Mild Steel at Room Temperature and Strain Rate of up to 10^5 s^{-I}, Analysis, **15**, 201.

Hassani, H.A. and Neale, K.W. (1991), On the Analysis of Sheet Metal Wrinkling, *Int. J. Mech. Sci.*, **33**, 13.

Haydi, H.A. and Sherbourne, A.N. (1974), Plastic Analysis of Shallow Spherical Shells, *J. Appl. Mech.*, **41**, 593.

Hawkyard, J.B. (1969), A Theory for the Mushrooming of Flat-Ended Projectiles Impinging on a Flat Rigid Anvil Using Energy Considerations, *Int. J. Mech. Sci.*, **11**, 313.

Hawkyard, J.B. and Johnson, W. (1967), An Analysis of the Changes in Geometry of a Short Hollow Cylinder During Axial Compression, *Int. J. Mech. Sci.*, **9**, 163.

Hawkyard, J.B., Johnson, W. and Kirkland, J. (1973), Analysis for Roll Force and Torque in Ring Rolling with Some Supporting Experiments, *Int. J. Mech. Sci.*, **15**, 473.

Haythornthwaite, R.M. (1954), The Deflection of Plates in the Elastic-Plastic Range, *Proc. 2nd US Nat. Congr. Appl. Mech. (Ann Arbor)*, 521.

Haythornthwaite, R.M. and Shield, R.T. (1958), A Note on the Deformable Region in a Rigid-Plastic Structure, *J. Mech. Phys. Solids*, **6**, 127.

Hecker, S.S. (1975), A Simple Technique for Determining Forming Limit Curves, *Sheet Metal Indust.*, **52**, 671.

Hencky, H. (1924), Zur Theorie Plastischer Deformationen and der Hierdurch im Material Herforgerufenen, *Z. Angew. Math. Mech.*, **4**, 323.

Hill, R. (1948), A Theory of Yielding and Plastic Row in Anisotropic Metals, *Proc. Roy. Soc. London Sen. A*, **193**, 281.

Hill, R. (1949), The Theory of Plane Plastic Strain for Anisotropic Metals, *Proc. Roy. Soc. London Ser. A*, **194**, 428.

Hill, R. (1949), Plastic Distortion of Non-Uniform Sheets, *Phil. Mag.* (Sen 7), **40**, 971.

Hill, R. (1950a), *The Mathematical Theory of Plasticity*, Clarendon Press, Oxford, UK.

Hill, R (1950b), A Theory of Plastic Bulging of a Metal Diaphragm by Lateral Pressure, *Phil. Mag.* (Ser. 7), **41**, 1133.

Hill, R. (1950c), On the Inhomogeneous Deformation of a Plastic Lamina in a Compression Test, *Phil. Mag., Ser.*, 7, **41**, 733.

Hill, R. (1951), On the State of Stress in a Plastic/Rigid Body at the Yield Point, *Phil. Mag.*, **42**, 868.

Hill, R. (1952), On Discontinuous Stress States with Special References to Localized Necking in Thin Sheets , *J. Mech. Phys. Solids*, **1**, 19.

Hill, R. (1953), A New Method for Determining the Yield Criterion and Plastic Potential of Ductile Metals, *J. Mech. Phys. Solids*, **1**, 271.

Hill, R. (1954), The Plastic Torsion of Anisotropic Bars, *J. Mech. Phys. Solids*, **3**, 87.

Hill, R. (1956), On the Problem of Uniqueness in the Theory of a Rigid/Plastic Solid, Parts 1 and 2, *J. Mech. Phys. Solids*, **4**, 247 and 5, 1.

Hill, R. (1957), On the Problem of Uniqueness in the Theory of a Rigid/Plastic Solid, Parts 3 and 4, *J. Mech. Phys. Solids*, **5**, 153 and 163.

Hill, R. (1958), A General Theory of Uniqueness and Stability of Elastic/Plastic Solids, *J. Mech. Phys. Solids*, **6**, 236.

Hill, R. (1959), Some Basic Problems in the Mechanics of Solids Without a Natural Time, *J. Mech. Phys. Solids*, **7**, 209.

Hill, R. (1962), Acceleration Waves in Solids, *J. Mech. Phys. Solids*, **10**, 1.

Hill, R. (1963), A General Method of Analysis for Metal Working Processes, *J. Mech. Phys. Solids*, **11**, 305.

Hill, R. (1965), Continuum Micromechanics of Elastoplastic Polycrystals, *J. Mech. Phys. Solids*, **13**, 89 and 213.

Hill, R. (1966), Generalized Constitutive Relations for Incremental Deformation of Metal Crystals by Multislip, *J. Mech. Phys. Solids*, **14**, 95.

Hill, R. (1967), Ideal Forming for Perfectly Plastic Solids, *J. Mech. Phys. Solids*, **15**, 223.

Hill, R. (1976), Plastic Analysis of Pressurized Cylinders Under Axial Load, *Int. J. Mech. Sci.*, **18**, 145.

Hill, R. (1979), Theoretical Plasticity of Textured Aggregates, *Math. Proc. Cambridge Philos. Soc.*, **85**, 179.

Hill, R. (1980), Cavitation and the Influence of Headshape in Attack of Thick Targets by Nondeforming Projectiles, *J. Mech. Phys. Solids*, **28**, 249.

Hill, R. (1990), Constitutive Modelling of Orthotropic Plasticity in Sheet Metals, *J. Mech. Phys. Solids*, **38**, 405.

Hill, R. and Hutchinson, J.W. (1992), Differential Hardening in Sheet Metal Under Biaxial Loading, *J. Appl. Mech.*, **59**, SI.

Hill, R. and Rice, J.R. (1972), Constitutive Analysis of Elastic/Plastic Crystals at Arbitrary Strain, *J. Mech. Phys. Solids*, **20**, 401.

Hill, R. and Storakers, B. (1980), Plasticity and Creep of Pressurized Membranes, *J. Mech. Phys. Solids*, **28**, 27.
Hill, R., Storakers, B., and Zdunek, A.B. (1989), A Theoretical Study of the Brinell Hardness Test, *Proc. Roy. Soc. London Ser. A*, **423**, 301.
Hill, R. and Sewell, M.J. (1960), A General Theory of Inelastic Column Failure—I and II, *J. Mech. Phys. Solids*, **8**, 105 and 112.
Hill, R. and Sewell, M.J. (1962), A General Theory of Inelastic Column Failure—III, *J. Mech. Phys. Solids*, **10**, 185.
Hillier, M.J. (1966), Instability Strains in Plane Sheet Under Biaxial Stresses, *J. Appl. Meek*, **23**, 256.
Hodge, P.G. (1954), The Rigid-Plastic Analysis of Symmetrically Loaded Cylindrical Shells, *Appl. Mech.*, **21**, 336.
Hodge, P.G. (1955), Impact Pressure Loading of Rigid-Plastic Cylindrical Shells, *J. Mech. Phys. Solids*, **3**, 176.
Hodge, P.G. (1956a), Displacements in an Elastic-Plastic Cylindrical Shell, *J. Appl. Mech.*, **23**, 73.
Hodge, P.G. (1956b), The Influence of Blast Characteristics on the Final Deformation of Circular Cylindrical Shells, *Appl. Mech.*, **23**, 617.
Hodge, P.G. (1957), A General Theory of Piecewise Linear Plasticity Based on Maximum Shear, *J. Mech. Phys. Solids*, **5**, 242.
Hodge, P.G. (1959), The Effect of End Conditions on the Dynamic Loading of Plastic Shells, *J. Mech. Phys. Solids*, **7**, 258.
Hodge, P.G. (1960a), Yield Conditions for Rotationally Symmetric Shells Under Axisymmetric Loading, *J. Appl. Mech.*, **27**, 323.
Hodge, P.G. (1960b), Plastic Analysis of Circular Conical Shells, *J. Appl. Mech.*, **27**, 696.
Hodge, P.G. (1961), The Mises Yield Condition for Rotationally Symmetric Shells, *Quart. Appl. Math.*, **18**, 305.
Hodge, P.G. (1963), *Limit Analysis of Rotationally Symmetric Plates and Shells*, Chap. 7, Prentice Hall, Englewood Cliffs, NJ.
Hodge, P.G. (1964a), Rigid-Plastic Analysis of Spherical Caps with Cutouts, *Int. J. Mech. Sci.*, **6**, 177.
Hodge, P.G. (1964b), Plastic Design of a Closed Cylindrical Structure, *J. Mech. Phys. Solids*, **12**, 1.
Hodge, P.G. (1964c), Full Strength Reinforcement of a Cutout in a Cylindrical Shell, *J. Appl. Mech.,* **31**, 667.
Hodge, P.G. (1980), A Piecewise Linear Theory of Plasticity for an Initially Isotropic Material in Plane Stress, *Int. J. Mech. Sci.*, **22**, 21.
Hodge, P.G. (1981), *Plastic Analysis of Structures*, Krieger, New York.
Hodge, P.G., Bathe, K.J., and Dvorkin, E.N. (1986), Causes and Consequences of Nonuniqueness in Elastic/Perfectly Plastic Truss, *J. Appl. Mech.*, **53**, 235.
Hodge, P.G. and Belytschko, T. (1968), Numerical Methods for the Limit Analysis of Plates, *J. Appl. Mech.*, **35**, 796.
Hodge, P.G. and Lakshmikantham, C. (1962), Yield Loads of Spherical Caps with Cutouts, *Proc. 4th US Nat. Congr. Appl. Mech. Berkeley*, **2**, 951.
Hodge, P.G. and Lakshmikantham, C. (1963), Limit Analysis of Shallow Shells of Revolution, *J. Appl. Mech.*, **30**, 215.
Hodge, P.G. and Nardo, S.V.N. (1958), Carrying Capacity of an Elastic-Plastic Cylindrical Shell with Linear Strain-Hardening, *J. Appl. Mech.*, **25**, 79.
Hodge, P.G. and Panarelli, J. (1962), Interaction Curve for Circular Cylindrical Shells According to the Mises or Tresca Yield Criteria, *J. Appl. Mech.*, **29**, 375.
Hodge, P.G. and Perrone, N. (1957), Yield Loads of Slabs with Reinforced Cutouts, *J. Appl. Meek*, **24**, 85.
Hodge, P.G. and Sankaranarayanan, S. (1958), On Finite Expansion of a Hole in a Thin Infinite Plate, *Quart. Appl. Math*, **16**, 73.

Hodge, P.G. and Sankaranarayanan, S. (1960), Plastic Interaction Curves of Annular Plates in Tension and Bending, *J. Mech. Phys. Solids*, **8**, 153.

Hoffman, G.A. (1962), Minimum weight Proportions of Pressure Vessel Heads, *J. Appl. Mech.*, **29**, 662.

Hong, H.K. and Liou, J.K. (1993a), Research Report, Department of Civil Engineering, National Taiwan University, Taipei.

Hopkins, H.G. (1957), On the Plastic Theory of Plates, *Proc. Roy. Soc. London Ser. A*, **241**, 153.

Hopkins, H.G. (1960), Dynamic Expansion of Spherical Cavities, in *Metals, Progress in Solid Mechanics* (eds., I.N. Sneddon and R. Hill), Vol.1, Chap. 3, North Holland Publishing Company, Amsterdam.

Hopkins, H.G. (1968), The Method of Characteristics and its Application to the Theory of Stress Waves in Solids, *Engineering Plasticity* (eds., J. Heyman and F.A. Leckie), Cambridge University Press, Cambridge, UK, p. 277.

Hopkins, H.G. and Prager, W. (1953), The Load Carrying Capacity of Circular Plates, *J. Mech. Phys. Solids*, **2**, 1.

Hopkins, H.G. and Prager, W. (1954), On the Dynamics of Plastic Circular Plates, Z. *Angew. Math. Mech.*, **5**, 317.

Hopkins, H.G. and Prager, W. (1955), Limits of Economy of Material in Plates, *J. Appl. Mech., Trans. ASME*, **22**, 372.

Hopkins, H.G. and Wang, A.J. (1955), Load Carrying Capacities of Circular Plates of Perfectly-Plastic Material with Arbitrary Yield Condition, *J. Mech. Phys. Solids*, **3**, 117.

Horne, M.R. (1956), The Elastic-Plastic Theory of Compression Members, *J. Mech. Phys. Solids*, **4**, 104.

Horne, M.R. and Merchant, W. (1965), *The Stability of Frames,* Pergamon Press, Oxford, UK.

Hosford, W.F. and Caddell, R.M. (1993), *Metal Forming, Mechanics and Metallurgy*, second edition, Prentice Hall, Englewood Cliffs, NJ.

Huh, H., Han, S.S., and Yang, D.Y. (1994), Modified Membrane Finite Element Formulation Considering Bending Effects in Sheet Metal Analysis, *Int. J. Mech. Sci.*, **36**, 659.

Hu, T.C. and Shield, R.T. (1961), Uniqueness in the Optimum Design of Structures, *J. Appl. Mech.*, **28**, 284.

Hudson, G.E. (1951), A Theory of Dynamic Plastic Deformation of a Thin Diaphragm, *J. Appl. Phys.,* **22**, 1.

Humphreys, J.S. (1965), Plastic Deformation of Impulsively Loaded Straight Clamped Beams, *J. Appl. Mech.*, **32**, 7.

Hundy, B.B. and Green, A.P. (1954), A Determination of Plastic Stress-Strain Relations, *J. Mech. Phys. Solids*, **3**, 16.

Hunter, S.C. (1957), The Propagation of Spherically Symmetric Disturbances in Ideally Plastic Materials, *Proc. Conf. Prop. Mat. High Rates Strain, Instn. Mech. Engrs. (London)*, 147.

Hunter, S.C. and Crozier, R.J.M. (1968), Similarity Solution for the Rapid Uniform Expansion of a Spherical Cavity in a Compressible Elastic-Plastic Solid, *Quart. J. Mech. Appl. Math.*, **21**, 467.

Hutchinson, J.W. (1970), Elasto-Plastic Behaviour of Polycrystalline Metals and Composites, *Proc. Roy. Soc. London Ser. A*, **319**, 247.

Hutchinson, J.W. (1972), On the Postbuckling Behavior of Imperfection Sensitive Structures in Plastic Range, *J. Appl. Mech.*, **39**, 155.

Hutchinson, J.W. (1974), Plastic Buckling, *Adv. in Appl. Mech.*, **14**, 67.

Hutchinson, J.W. and Miles, J.P. (1974), Bifurcation Analysis of the Onset of Necking in an Elastic/Plastic Cylinder Under Uniaxial Tension, *J. Mech. Phys.* Solids, **22**, 61.

Hutchinson, J.W. and Neale, K.W. (1978), in Mechanics of Sheet Metal Forming (eds., D.P. Koistinen and N.M. Wang), Plenum Press, New York, p. 172.

Ilahi, M.F., Parmar, A., and Mellor, P.B. (1981), Hydrostatic Bulging of a Circular Aluminium Diaphragm, *Int. J. Mech. Sci.*, **23**, 221.

Illyushin, A.A. (1946), The Theory of Small Elastic-Plastic Deformations, *Prikl. Math. Mekh.*, **10**, 347.

Illyushin, A.A. (1947), The Elastic-Plastic Stability of Plates, Technical Note, NACA-1188.

Ilyushin, A.A. (1948), Plasticity (in Russian), Gesteckhizdat, Moscow.

Inoue, T. and Kato, B. (1993), Analysis of Plastic Buckling of Steel Plates, *Int. J. Solids Struct.*, **15**, 567.

Ishlinsky, A. (1944), *Prikl. Mat. Mekh. Leningrad*, **8**, 201.

Ishlinsky, A., (1954), A General Theory of Plasticity with Linear Strain-Hardening (in Russian) *Ukrain. Mat. Zh.*, **6**, 314.

Issler, W. (1964), Membranschalen Gleicher Festigkeit, *Ingenieur-Archiv*, **33**, 330.

Ivanov, G.V. (1967), *Inzh. Zh. Mekh. Tuerdogo, Tele*, **6**, 74.

Jackson, L.R., Smith, K.F. and Lankford, W.T. (1948), Plastic Flow in Anisotropic Sheet Metal, Metals Technology, Tech. Pub. 2440.

Jahsman, WE. (1974), Reflection and Refraction of Weak Elastic-Plastic Waves, *J. Appl. Mech.*, **41**, 117.

Jansen, D.M. Datta, S.K., and Jahsman, W.E. (1972), Propagation of Weak Waves in Elastic-Plastic Solids, *J. Mech. Phys. Solids*, **20**, 1.

Jaumann, G. (1911), Geschlossenes System physikalischer und chemischer differentialge-setze, *sitzber. kais. akad. wiss., wien*, Abt. II, **120**, 385.

Jiang, W. (1993), The Elastic/Plastic Response of Thin Walled Tubes Under Combined Axial and Torsional Loads, *J. Press. Vess. Technol., Trans. ASME*, **115**, 283, 291.

Jiang, W. (1994), Study of Two-Surface Plasticity Theory, *J. Engng. Mech., Trans. ASCE*, **120**, 2179.

Jiang. W. (1995), A New Constitutive Model in the Theory of Plasticity, *J. Pressure Vessel Technol.*, **117**, 365, 371.

Johansen, K.W. (1943), Brudlinieteorier, Gjellerup, Copenhagen.

Johnson, G.R. and Holmquist, T.J. (1988), Evaluation of Cylinder Impact Test Data for Constitutive Model Constants, *J. Appl. Phys.*, **64**, 3901.

Johnson, K.L. (2001), *Contact Mechanics*, Cambridge University Press, Cambridge.

Johnson, R.W. and Rowe, G.W. (1968), Redundant Work in Drawing Cylindrical Stock, *J. Inst. Metals*, **96**, 97.

Johnson, W. (1957), The Pressure for the Cold Extrusion of Lubricated Rod Through Square Dies of Moderate Reduction at Slow Speeds, *J. Inst, of Metals*, **85**, 403.

Johnson, W. (1969), Upper Bounds to the Load for the Transverse Bending of Flat Rigid Perfectly Plastic Plates, *Int. J. Mech. Sci.*, **11**, 913.

Johnson, W. (1972), *Impact Strength of Materials*, Edward Arnold, London.

Johnson, W., Chitkara, N.R., and Ranshi, A.S. (1974), Plane Stress Yielding of Cantilevers in Bending due to Combined Shear and Axial Load, *J. Strain Anal.*, **9**, 67.

Johnson, W., de Malherbe, M.C., and Venter R. (1973), Some Slipline Field Results for the Plane Strain Extrusion of Anisotropic Material Through Frictionless Wedge-Shaped Dies, *Int. J. Mech. Sei.*, **15**, 109.

Johnson, W., Kormi, K. and Travis, F.W. (1965), The Explosive Drawing of Square and Flat-Bottomed Circular Cups and Double Pulsation Phenomenon, *Proc. 5th Int. M.T.D.R. Conf*, Pergamon Press, Oxford, p. 293.

Johnson, W. and Kudo, H. (1962), *Mechanics of Metal Extrusion*, Manchester University Press, Manchester.

Johnson, W. and Mellor, P.B. (1983), *Engineering Plasticity*, Ellis Horwood, Chichester.

Johnson, W and Needham, G. (1968), Experiments on Ring Rolling, *Int. J. Mech. Sci.*, **10**, 95.

Johnson, W., Sengupta, A.K. and Ghosh, S.K. (1982), Plasticine Modelled High Velocity Impact and Ricochet of Long Rods, *Int. J. Mech. Sci.*, **24**, 437.

Johnson, W., Slater, R.A.C., and Yu, A.S. (1966), The Quasi-Static Compression of Non-Circular Prismatic Blocks Between Very Rough Platens, *Int. J. Mech. Sci.*, **8**, 731.

Johnson, W. and Travis, F.W. (1966), High Speed Blanking of Copper, *Proc. Inst. Mech. Engrs.* **180**, 16.

Jones, L.L. and Wood, R.H. (1967), *Yield Line Analysis of Slabs*, Thames and Hudson, London.
Jones, N. (1967), Influence of Strain-Hardening and Rate-Sensitivity on the Permanent Deformation of Impulsively Loaded Rigid Plastic Beams, *Int. J. Mech. Sci.*, **9**, 111.
Jones, N. (1968a), Impulsive Loading of a Simply Supported Circular Rigid-Plastic Plate, *J. Appl. Mech.*, **35**, 59.
Jones, N. (1968b), Finite Deflections of a Simply Supported Rigid Plastic Annular Plate Loaded Dynamically, *Int. J. Solids Struct.*, **4**, 593.
Jones, N. (1970), The Influence of Large Deflections on the Behaviour of Rigid/Plastic Cylindrical Shells Loaded Impulsively, *J. Appl. Mech.*, **37**, 416.
Jones, N. (1971), A Theoretical Study of the Dynamic Plastic Behaviour of Beams and Plates with Finite Deflections, *Int. J. Solids Struct.*, **7**, 1007.
Jones, N. (1989), *Structural Impact*, Cambridge University Press, Cambridge, UK.
Jones, N. and Ahn, C.S. (1974), Dynamic Elastic and Plastic Buckling of Complete Spherical Shells, *Int. J. Solids Struct.*, **10**, 1357.
Jones, N. and Okawa, D.M. (1976), Dynamic Plastic Buckling of Rings and Cylindrical Shells, *Nuclear Engng. Design*, **37**, 125.
Jones, N, Uran, T and Tekin, S.A. (1970), The Dynamic Plastic Behavior of Fully Clamped Rectangular Plates, *Int. J. Solids Struct.*, **6**, 1499.
Jones, R.M. (1967), Plastic Buckling of Eccentrically Stiffened Circular Cylindrical Shells, *AIAA Journal*, **5**, 1147.
Jones, R.M. (2009), *Deformation Theory of Plasticity*, Bull Ridge Publishing, Blacksburg, VA.
Kachanov, A. (1971), *Foundations of the Theory of plasticity*, North-Holland, Amsterdam.
Kadashevitch, I. and Novozhilov, V.V. (1959), The Theory of Plasticity that Takes into Account Residual Microstresses (in Russian), *Prikl. Mat. Mekh.*, **22**, 104.
Kaftanoglu, B. and Alexander J.M. (1970), On Quasi-Static Axisymmetric Stretch Forming, *Int. J. Mech. Sci.*, **12**, 1065.
Kalisky, S. (1970), Approximate Solutions for Dynamically Loaded Inelastic Structures and Continua, *Int. J. Nonlinear Mech.*, **5**, 143.
Kalisky, S. (1989), *Plasticity Theory and Engineering Applications*, Elsevier, Amsterdam.
Kanazawa, R. and Marcal, P.V. (1982), Finite Element Analysis of Plane Strain Rolling, ****J. Engng. Indust*., *Trans. ASME*, **104**, 95.
Karunes, B. and Onat, E.T. (1960), On the Effect of Shear on Plastic Deformation of Beams Under Transverse Impact Loading, *J. Appl. Mech.*, **27**, 10.
Kasuga, Y. and Tsutsumi, S. (1965), Pressure Lubricated Deep Drawing, *Bull. Japan Soc. Mech. Engrs.*, **8**, 120.
Keck, P., Wilhelm, M., and Lange, K. (1990), Applications of the Finite Element Method to the Simulation of Sheet Metal Processes: Comparison of Calculation and Experiment, *Int. J. Numer. Methods. Engng*., 1419.
Keeler, S.P. (1965), Determination of Forming Limits in Automotive Stamping, *Sheet Metal Ind.*, **42**, 683.
Keil, A.H. (1960), Problems of Plasticity in Naval Structures, Explosive and Impact Loading, *Plasticity* (eds., E.H. Lee and PS. Symonds), Pergamon Press, Oxford, UK, p. 22.
Kelly, J.M. and Wilshaw, T.R. (1968), A Theoretical and Experimental Study of Projectile Impact on Clamped Circular Plates, *Proc. Roy. Soc. London Ser. A*, **306**, 435.
Khan, A.S. and Huang, S. (1995), *Continuum Theory of Plasticity*, Wiley, New York.
Keeler, S.P. and Backofen, W.A. (1963), Plastic Instability and Fracture in Sheet Stretched Over Rigid Punches, *Trans. Amer. Soc. Metals*, **56**, 25.
Ketter, R.L. (1961), Further Studies of the Strength of Beam Columns, *J. Struct. Div., Proc. ASCE*, **87**, ST6, 135.
Kim, K.K. and Kim, D.W. (1983), The Effect of Void Growth on the Limit Strains of Steel Sheets, *Int. J. Mech. Sci*., **25**, 293.
Kim, J.H., Oh, S.I. and Kobayashi, S. (1978), Analysis of Stretching of Sheet Metals with Hemi Spherical Punch, *Int. J. Mech. Tool Des. Res.*, **19**, 209.

Kim, J.H. and Kobayashi, S. (1978), Deformation Analysis of Axisymmetric Sheet Metal Forming Processes by Rigid-Plastic Finite Element Methods, in Mechanics of Sheet Metal Forming (eds., D.P. Koistinen and N.M. Wang), Plenum Press, New York, p. 341.

Kim, J.H., Oh, S.I. and Kobayashi, S. (1978), Analysis of Stretching of Sheet Metals with Hemispherical Punch, *Int. J. Mach. Tool Des. Res*., **18**, 209.

Kim, J.H. and Yang, D.Y. (1985a), A Rigid/Plastic Finite Element Formulation Considering Effect of Geometry Change and its Application to Hydrostatic Bulging, *Int. J. Mech. Sci.*, **27**, 453.

Kim, J.H. and Yang, D.Y. (1985b), An Analysis of Upset Forging of Square Blocks Considering the Three-Dimensional Bulging of Sides, *Int. J. Mech. Tool Des. Res.*, **25**, 327.

Kim, J.H., Yang, D.Y and Kim, M.U. (1987), Analysis of Three-Dimensional Upset Forging of Arbitrary Shaped Rectangular Blocks, *Int. J. Mack Tool Manufact.*, **27**, 311.

Kim, J.B., Yoon, J.W. and Yang, D.Y. (2000), Wrinkling Initiation and growth in Modified Yoshida Test-:Finite Element Analysis and Experimental Comparison, *Int. J. Mech. Sci.*, **42**, 1683.

Klepaczko, J. (1968), Strain Rate History Effects for Polycrystalline Aluminium and Theory of Intersection, *J. Mech. Phys. Solids*, **16**, 255.

Klinger, L.G. and Sachs, G. (1948), Dependence of the Stress-Strain Curves of Cold-Worked Metals Upon the Testing Direction, *J. Aeronaut. Sci*., **15**, 599.

Kliushnikov, V.D. (1959), New Concepts in Plasticity and Deformation Theory (in Russian), *Prikl. Mat. Mekh.*, **23**, 405.

Kobayashi, S. (1964), Upper Bound Solution to Axisymmetric Forming Problems*, J. Engng. Indust.,* Trans. ASME, **83**, 326.

Kobayashi, S., Caddell, R.M., and Hosford, W.F. (1985), Examination of Hills Latest Yield Criterion Using Experimental Data for Various Anisotropic Sheet Metals, *Int. J. Mech. Sci.*, **27**, 509.

Kobayashi, S. Oh, S.I., and Altan, T. (1989), *Metal Forming and the Finite Element Method*, Oxford University Press, New York.

Kobayashi, S. and Thomsen, E.G. (1965), Upper and Lower Bound Solutions to Axisym-metric Compression and Extrusion Problems, *Int. J. Mech. Sci.*, **7**, 127.

Kolsky, H. (1949), An Investigation of the Mechanical Properties of Materials at Very High Rates of Loading, *Proc. Phys. Soc*, **B62**, 676.

Koiter, W.T. (1953), Stress-Strain Relations, Uniqueness and Variational Theorems for Elastic-Plastic Materials with a Singular Yield Surface, *Quart. Appl. Math.*, **11**, 350.

Koiter, W.T. (1960), General Theorems, *progress in solid mechanics* (eds., I. Sneddon and R. Hill), Vol. I, North-Holland, Amsterdam.

Kojic, M., Grijovic, N., Slavkovic, R. and Zivkovic, M. (1996), A General von Mises Plasticity Material Model with Mixed Hardening; Model Definition and Implicit Stress Integration Procedure, *J. Appl. Mech*., **63**, 376.

Kolsky, H. (1953), *Stress Waves in Solids*, Clarendon Press, Oxford, UK.

Kolsky, H. and Douch, L.S. (1962), Experimental Studies in Plastic Wave Propagation, *J. Mech. Phys. Solids*, **10**, 195.

Kondo, K. and Pian, T.H.H. (1981), Large Deformation of Rigid/Plastic Circular Plates, *Int. J. Solids Struct.*, **17**, 1043.

König, J.A. and Rychlewsky, R. (1966), Limit Analysis of Circular Plates with Jump Nonhomogeneity, *Int. J. Solids Struct.*, **2**, 493.

Koopman, D.C.A. and Lance, R.H. (1965), On Linear Programming and Plastic Limit Analysis, *J. Mech. Phys. Solids*, **13**, 77.

Kosel, F. and Bremec, B. (2004), Elastoplastic Buckling of Circular Annular Plates Under Uniform In- Plane Loading, *Thin-Walled Struct*. **42**, 101.

Kozlowski, W. and Mröz, Z. (1969), Optimal Design of Solid Plates, *Int. J. Solids Struct.*, **5**, 781.

Krajcinovic, D. (1972), Dynamic Analysis of Clamped Plastic Circular Plates, *Int. J. Mech. Sci.*, **14**, 225.

Krajcinovic, D. (1976), Rigid-Plastic Circular Plates on Elastic Foundation, *J. Engng. Mech. Div.*, *Trans. ASCE*, **102**, 213.

Kröner, E. (1961), Zur Plastischen Verformung des Vielkristalls, *Acta Metall*, **9**, 153.
Kudo, H. (1960), Some Analytical and Experimental Studies of Axisymmetric Cold Forging and Extrusion I, *Int. J. Mech. Sci.*, **2**, 102.
Kudo, H. (1961), Some Analytical and Experimental Studies of Axisymmetric Cold Forging and Extrusion II, *Int. J. Mech. Sci.,* **3**, 91.
Kudo, H. and Aoi, K. (1967), Effect of Compression Test Condition upon Fracturing of Medium Carbon Steel; Study on Cold Forgeability Test, *Japan Soc. Tech. Plast.*, **8**, 17.
Kuech, R.W. and Lee, S.L. (1965), Limit Analysis of Simply Supported Conical Shells Subjected to Uniform Internal Pressure, *J. Franklin Inst.*, **280**, 71.
Kukudjanov, V.N. (1967), Propagation of Elastic-Plastic Waves in Rods Taking into Account the Rate Influence (in Russian), *Computing Centr. Acad. Sci., USSR*, Moscow.
Kumar, A. and Reddy, V.V.K. (1986), Dynamic Plastic Response of Circular Plates with Transverse Shear, *J. Appl. Mech.*, **53**, 952.
Kummerling, R. and Lippmann, H. (1975), On Spread in Rolling, *Mech. Res. Commun.*, **2**, 113.
Kunogi, M. (1954), On Plastic Deformation of Hollow Cylinders Under Axial Compressive Loading, *J. Sci. Res. Inst., Tokyo*, p. 2.
Kuzin, P.A. and Shapiro, G.S. (1966), On Dynamic Behaviour of Plastic Structures, *Proc. 11th Int. Congr. Appl. Mech. (Munich, 1964)*, Springer-Verlag, New York, p. 629.
Kwasczynska, K. and Mröz, Z. (1967), A Theoretical Analysis of Plastic Compression of Short Circular Cylinders, *Arch. Mech. Stos.*, **19**, 787.
Lahoti, G.D. and Kobayashi, S. (1974), On Hill's General Method of Analysis for Metal Working Processes, *Int. J. Mech. Sei.*, **16**, 521.
Lakshmikantham, C. and Hodge, P.G. (1963), Limit Analysis of Shallow Shells of revolution, *J. Appl. Mech.*, **30**, 215.
Lamba, H.S. and Sidebottom, O.M. (1978), Cyclic Plasticity for Nonproportional Paths: Comparison with Predictions of Three Incremental Plasticity Models, *J. Engng. Mat. Technol.*, **100**, 104.
Lambert, E.R. and Kobayashi, S. (1969), An Approximate Solution for the Mechanics of Axisymmetric Extrusion, *Proc. 9th M.T.D.R. Conference,* Pergamon Press, Oxford.
Lance, R.H. and Lee, C.H. (1969), The Yield Point Load of a Conical Shell, *Int. J. Mech. Sci.*, **11**, 129.
Lance, R.H. and Onat, E.T. (1962), A Comparison of Experiments and Theory in the Plastic Bending of Plates, *J. Mech. Phys. Solids*, **10**, 301.
Lance, R.H. and Onat, E.T. (1963), Analysis of Plastic Shallow Conical Shells, *J. Appl. Mech.*, **30**, 199.
Landgraf, R.W. (1970), The Resistance of Metals to Cyclic Deformation, *Advancement of High Fatigue Resistance in Metals and Alloys,* STP-467, ASTM, Philadelphia.
Lange, K. (1985), *Handbook of Metal Forming*, McGraw-Hill, New York.
Lebedev, N.F. (1954), *Prikt Mat. Mekh.*, **18**, 167.
Leckie, F.A. and Payne, D.J. (1965), Some Observation on the Design of Spherical Pressure Vessels with Flush Cylindrical Nozzles, *Proc. Instn. Mech. Engrs.*, **180**, 497.
Leckie, F.A. and Penny, R.K. (1968), Plastic Instability of Spherical Shells, in *Engineering Plasticity* (eds., J. Heyman and F.A. Leckie), Cambridge University Press, UK, p. 401.
Lee, C.H. and Kobayashi, S. (1971), Analysis of Axisymmetric Upsetting and Plane Strain Side Pressing of Solid Cylinders by the Finite Element Method, *J. Engng. Indust., Trans. ASME*, **93**, 445.
Lee, D. and Zaverl, R. (1982), Neck Growth and Forming Limits in Sheet Metals, *Int. J. Mech. Sci.*, **24**, 157.
Lee, E.H. (1953), A Boundary Value Problem in the Theory of Plastic Wave Propagation, *Quart. Appl. Math.*, **10**, 335.
Lee, E.H. (1960), The Theory of Wave Propagation in Anelastic Materials, in *Stress Wave Propagation in Materials* (ed. N. Davids), Interscience, New York, p. 199.
Lee, E.H. (1969), Large Elasti-Plastic Deformation at Finite Strains, *J. Aappl. Mech.*, **36**, 1.

Lee, E.H., Mallett, R.L. and Wertheimer, T.B. (1983), Stress Analysis for Anisotropie Hardening in Finite Deformation Plasticity, *J. Appl. Mech.*, **50**, 554.

Lee, E.H. and Symonds, P.S. (1952), Large Plastic Deformation of Beams Under Transverse Impact Loading. *J. Appl. Mech.*, **19**, 308.

Lee, E.H. and Tupper, S.J. (1954), Analysis of Plastic Deformation in a Steel Cylinder Striking a Rigid Target, *J. Appl. Mech.*, **21**, 63.

Lee, L.C. and Onat, E.T. (1968), Analysis of Plastic Spherical Shells, *Engineering Plasticity* (eds., J. Heyman and F.A. Leckie), Cambridge University Press, U.K., p. 413.

Lee, L.H.N. (1962), Inelastic Buckling of Initially Imperfect Cylindrical Shells Subject to Axial Compression, *J. Aeronaut. Sci.*, **29**, 87.

Lee, L.H.N. (1977), Quasi-Bifurcation in Dynamics of Elastic-Plastic Continua, *J. Appl. Mech.*, **44**, 413.

Lee, L.H.N. (1981), Dynamic Buckling of an Inelastic Column, *Int. J. Solids Struct.*, **17**, 271.

Lee, L.S.S. and Martin, J.B. (1970), Approximate Solutions of Impulsively Loaded Structures of a Rate Sensitive Material, *Z. Angew. Math. Phys*, **21**, 1011.

Lee, S.H. and Kobayashi, S. (1975), Rigid-Plastic Analysis of Bore Expanding Flange Drawing with Anisotropic Sheet Metals by Matrix Methods, Proc. 15th Int. MTDR Conf., p. **561**.

Lee, S.L. and Thorn, B.J. (1964), Deformation of Axisymmetrically Loaded Cylindrical Shells at Incipient Plastic Collapse, *Int. J. Mech. Sei.*, **6**, 247.

Lee, W.B. and Chan, K.C. (1991), Effect of Local Texture on the Development of M.K-Groove in Biaxial Deformation, *Textures and Microstructures*, **14**, 1221.

Lee, W.B. (1993), Methodology and Applications of Mesoplasticity in Manufacturing Science, *Int. J. Mech. Sei*, **35**, 147.

Lellep, J. and Torn, K. (2004), Plastic Response of a Circular Cylindrical Shell in Dynamic Loadings, *Int. J. Impact Engng.*, **30**, 555.

Lemaitre, J. and Chaboche, J.L. (1989), *Mechanics of Solid Structures*, Cambridge University Press.

Lensky, V.S. (1949), *Prikt. Mat. Mekh.*, **13**, 165.

Lévy, M. (1870), Mémoire surles équations générales des mouvements intérieurs des corps solides ductiles ou delà des limites ou l'élasticité pourrait les ramener à leur premier état, *C. R. Acad. Sei.* (Paris) **70**, 1323.

Li, G.J. and Kobayashi, S. (1982), Spread Analysis in Rolling by the Rigid/Plastic Finite Element Method, Numerical Method in Industrial Forming Processes, Pineridge Press, Swansea, p. 777.

Li, Q.M. and Jones, N. (2005), Foundation of Correlation Parameters for Eliminating Pulse Shape effects on Dynamic Plastic Response of Structures, *J. Appl. Mech.*, **72**, 172.

Li, S. and Reid, S.R. (1992), The Plastic Buckling of Axial Compressed Square Tubes, *Appl. Mech.*, **59**, 276.

Lian, J., Barlat, F., and Baudelet, B. (1989), Plastic Behavior and Stretchability of Sheet Metals, Part II: Effect of Yield Surface Shape on Sheet Forming Limit, *Int. J. Plasticity*, **5**, 131.

Lianis, G. and Ford, H. (1957), An Experimental Investigation of the Yield Criterion and the Stress-Strain Law, *J. Mech. Phys. Solids*, **5**, 215.

Limb, M.E., Chakrabarty, J., Garber, S. and Roberts, W.T. (1973), Hydraulic Forming of Tubes, *Sheet Metal Industries*, **53**, 418.

Lin, H.C. and Wu, H.C. (1983), On the Rate Dependent Endochronic Theory of Viscoplasticity, and its Application to Plastic Wave Propagation, *J. Appl. Mech.*, **43**, 92.

Lin, S.B. and Ding, J.L. (1995), Experimental Study of the Plastic Yielding of Rolled Sheet Metals with the Cruciform Plate Specimen, Int. J. Plasticity, **11**, 583.

Lin, T.H. (1957), Analysis of Elastic and Plastic Strains of a Face Centered Cubic Crystal, *J. Mech. Phys Solids*, **5**, 143.

Lin, T.H. (1971), Physical Theory of Plasticity, *Adv. in Appl. Mech.*, **11**, 255.

Lin, T.H. (1984), A Physical Theory of Plasticity and Creep, *J. Engng. Mater. Technol., Trans. ASME*, **106**, 290.

Lindholm, U.S. (1964), Some Experiments with the Split Hopkinson Pressure Bar, *J. Mech. Phys. Solids*, **12**, 317.

Lippmann, H. (1962), Principal Line Theory of Axially Symmetrical Plastic Deformation, *J. Mech. Phys. Solids*, **10**, 111.

Lippmann, H. (1965), Statics and Dynamics of Axially Symmetric Plastic Row, *J. Mech. Phys. Solids*, **13**, 29.

Lippmann, H. (1966), On the Dynamics of Forging, *Proc. 7th Int. Conf. MTDR*, Pergamon Press, Oxford, UK.

Lippmann, H. (1981), *Mechanik des Plastischen Fliessens*, Springer-Verlag, Berlin.

Lippmann, H. and Mahrenholtz, O, (1967), *The Mechanics of Plastic Forming of Metals* (in German), Springer-Verlag, Berlin.

Liu, Y.H., Cen, Z.Z., and Xu, B.Y. (1995), Numerical Method for Plastic Limit Analysis of 3-D Structures, *Int. J. Solids Struct.*, **32**, 1645.

Liu, D. and Strange, W.J. (1996), Deformation of Simply Supported Circular Plate by Central Pressure Pulse, *Int. J. Solids Struct.*, **33**, 283.

Lo, S.W., Hsu, l.C, and Wilson, W.R.D. (1993), An Analysis of the Hemispherical Punch Hydroforming Processes, *J. Mater. Process. Technol.*, **37**, 225.

Lockett, F.J. (1963), Indentation of a Rigid/Plastic Material by a Conical Indenter, *J. Mech. Phys. Solids*, **11**, 345.

Lode, W. (1926), Versuche über den Einfluss der mittleren Hauptspannung auf das Fliessen der Metalle, Eisen, Kupfer und Nickel, *Z. Phys.*, **36**, 913.

Logan, R.W. and Hosford, W.F. (1980), Upper Bound Anisotropic Yield Locus Calculations Assuming (111) Pencil Glide, *Int. J. Mech. Sci.*, **22**, 419.

Lu, L.W. and Kamalvand, H. (1968), Ultimate Strength of Laterally Loaded Columns, *J. Struct. Div., Proc. ASCEZ*, **94**, 1505.

Lubiner, J. (1965), The Strain Rate Effect in Plastic Wave Propagation, *J. Mecan.*, **4**, 111.

Ludwik, P. (1909), *Elemente der Technologischen Mechanik*, Springer Verlag, Berlin.

Luk, V.K. and Arnos, D.E. (1991), Dynamic Cylindrical Cavity Expansion of Compressible Strain-Hardening Material, *J. Appl. Mech.*, **58**, 334.

Luk, V.K. Forrestal, M.J., and Amos, D.E. (1991), Dynamic Spherical Cavity Expansion of Strain-Hardening Material, *J. Appl. Mech.*, **58**, 1.

MacDonald, A., Kobayashi, S. and Thomsen, E.G. (1960), Some problems of Press Forging Lead and Aluminum, *J. Engng. Indust., Trans. ASME*, **82**, 246.

Maclellan, G.D.S. (1952), Some Friction Factors in Wire Drawing, *J. Inst. Metals*, **81**, 1.

Majlessi, S.A. and Lee, D. (1988), Further Development of Sheet Metal Forming Analysis Method, *J. Engng. Indust., Trans. ASME,* **109**, 330.

Majlessi, S.A. and Lee, D. (1993), Deep Drawing of Square Shaped Sheet Metal Parts, Part I, Finite Element Analysis, *J. Engng. Indust., Trans. ASME*, **115**, 102.

Male, A.T. and Cockroft, M.G. (1964), The Ring Test, *J. Inst. Metals*, **93**, 38.

Male, A.T. and DePierre, V. (1970), The Validity of Mathematical Solutions for Determining Friction from the Ring Compression Test, *J. Lubrication Technol., Trans. ASME*, **92**, 389.

Malvern, L.E. (1951), The Propagation of Longitudinal Waves of Plastic Deformation in a Bar of Material Exhibiting Strain-Rate Effect, *J. Appl. Mech.*, **18**, 203.

Malvern, L.E. (1965), Experimental Studies of Strain Rate Effects and Plastic Wave Propagation in Annealed Aluminum, in *Behavior of Materials Under Dynamic Loading,* ASME. p. 81.

Malyshev, V.M. (1961), *J. Prikl. Mekh. Tech. Fiz.*, **2**, 104.

Mamalis, A.G. and Johnson, W. (1983), Quasi-Static Crumpling of Thin-Walled Circular Cylinders and Frusta Under Axial Compression, *Int. J. Mech. Sci.*, **25**, 713.

Mamalis, A.G., Johnson, W. and Hawkyard, J.B. (1976), Pressure Distribution, Roll Force and Torque In Cold Ring Rolling, *J. Mech. Engng. Sci.*, **18**, 196.

Ma, X., Barnett, M.R. and Kim, Y.H. (2004), Forward Extrusion Through Steadily Rotating Coonical Dies, Parts 1 and 2, *Int. J. Mech. Sci.*, **46**, 449. 465.

Mandel, J. (1962), Ondes Plastiques dans Milieu Indéfini a Trois Dimensions, in *Extrait du Seminaire de Plasticité*, Publ. Sei. Techn. Min. Air. NT 116, Paris, p. 151.

Mandel, J. (1972), *Plasticité Classique et Viscoplasticite,* Springer-Verlag, Wien.

Manjoine, M.J. (1944), The Influence of Rate of Strain and Temperature on Yield Stresses of Mild Steel, *J. Appl. Mech.*, **11**, 211.

Mansfield, E.H. (1957), Studies in Collapse Analysis of Rigid-Plastic Plates with a Square Yield Diagram, *Proc. Roy. Soc. London Ser. A*, **241**, 311.

Marcal, P.V. (1967), Optimal Plastic Design of Circular Plates, *Int. J. Solids Struct.*, **3**, 427.

Marciniak, and Duncan, J.L. (1992). The Mechanics of Sheet Metal Forming, Edward Arnold, London.

Marciniak, Z. and Kuczynski, K. (1967), Limit Strains in the Process of Stretch Forming Sheet Metals, *Int. J. Mech. Sci*., **9**, 609.

Marciniak, Z., Kuczynski, K. and Pakora, T. (1973), Influence of Plastic Properties of a Material on the Forming Limit Diagram for Sheet Metal in Tension, *Int. J. Mech. Sci*., **15**, 789.

Markin, A.A. and Yakovlev, S.S. (1996), Influence of Rotation of the Principal Orthotropy on the Deformation of Anisotropic Ideally Plastic Materials, Mechanics of Solids, **31**, 58.

Markowitz, J. and Hu, L.W. (1964), Plastic Analysis of Orthotropic Circular Plates, J. Engng. Mech., Trans. ASCE, **90**, 251.

Martin, J.B. and Lee, L.S.S. (1968), Approximate Solutions for Impulsively Loaded Elastic-Plastic Beams, *J. Appl. Mech.*, **35**, 803.

Martin, J.B. and Symonds, P.S. (1966), Mode Approximations for Impulsively Loaded Rigid-Plastic Structures, *J. Engng. Mech. Div., Proc. ASCE*, **92**, 43.

Martolakos, D.E. and Mamalis, A.G. (1986), Upper and Lower Bounds for Rectangular Plates Transversely Loaded, *Int. J. Mech. Sci*., **12**, 815.

Marshall, E.R. and Shaw, M.C. (1952), The Determination of Flow Stress from a Tensile Specimen, *Trans. Amer. Soc. Metals*, **44**, 705.

Massonnet, C.E. (1967), Complete Solutions Describing the Limit State in Reinforced Concrete Slabs, *Mag. Conc. Res.*, **19**, 58.

Mazumdar, J. and Jain, R.K. (1989), Elastic-Plastic Bending of Plates of Arbitrary Shape – A New Approach, *Int. J. Plasticity*, **5**, 463.

McDowell, D.L. (1985), A Two-Surface Model for Transient Nonproportional Cyclic Plasticity, *J. Appl. Mech.*, **52**, 298. 303.

McMeeking, R.M. and Rice, J.R. (1975), Finite Element Formulation for Problems of Large Elastic/Plastic Deformation, *Int. J. Solids Struct.*, **11**, 601.

Mellor, P.B. (1954), Stretch Forming Under Fluid Pressure, *J. Mech. Phys., Solids*, **5**, 41.

Mellor, P.B. (1981), Sheet Metal Forming, International Metals Reviews, **26**, 1.

Mellor, P.B. (1982), Experimental Studies of Plastic Anisotropy in Sheet Metal, in *Mechanics of Solids* (eds., H.G. Hopkins and M.J. Sewell), Pineridge Press, p. **383**.

Mendelson, A. (1968), *Plasticity: Theory and Applications*, Macmillan, New York.

Mentel, T.J. (1958), The Plastic Deformation due to Impact of a Cantilever Beam with an Attached Tip Mass, *J. Appl. Mech.*, **25**, 515.

Meyer, O.E. (1908), Untersuchungen über Härteprüfung und Harte, Z *ver. deutsche Ing.*, **52**, 645.

Miles, J.P. (1969), Bifurcation in Rigid/Plastic Materials with Spherically Symmetric Loading Conditions, *J. Mech. Phys. Solids*, **17**, 363.

Mises, R. von (1913), Mechanik der Fasten Korper im plastisch deformablen Zustand, *Göttingen Nachrichten, Math. Phys. KL*, **582**.

Mises, R. von (1928), Mechanik der plastischen Formänderung von Kristallen, Z. *angew. Math. Mech*., **8**, 161.

Montague, P. and Horner, M.R. (1968), Elastic-Plastic Axisymmetric Analysis of a Thin-Walled Cylindrical Shell Subjected to Radial Pressure Differences, *J. Appl. Mech*., **35**, 787.

Moore, G.G. and Wallace, J.F. (1964), The Effect of Anisotropy on Instability in Sheet Metal Forming, *J. Inst. Metals*, **93**, 33.

Moore, G.G. and Wallace, J.F. (1967), Theories and Experiments on Hollow Sinking Through Conical Dies, *Proc. Inst. Mech. Engrs.*, **182**, 19.

Mori, K., Osakada, K. and Fukuda, M. (1983), Simulation of Severe Plastic Deformation by Finite Element Method with Spatially Fixed Elements, *Int. J. Mech. Sci.*, **25**, 775.

Morland, L.W. (1959), The Propagation of Plane Irrotational Waves Through an Elasto-plastic Medium, *Philos. Trans. Roy. Soc. London Ser. A*, **251**, 341.

Mröz, Z. (1961), On a Problem of Minimum Weight Design, *Quart. Appl. Math.*, **19**, 3.

Mröz, Z. (1967a), On the Description of Anisotropic Hardening, *J. Mech. Phys. Solids*, **15**, 163.

Mröz, Z. (1967b), Graphical Solution of Axially Symmetric Problems of Plastic Flow, *Z. angew. Math. Mech.*, **18**, 219.

Mröz, Z., Shrivastava, H.P., and Dubey, R.N. (1976), A Nonlinear Hardening Model and its Application to Cyclic Loading, *Acta Mech.*, **25**, 51.

Mukherjee, S. and Lieu, J.K. Isotropic Work-Hardening Rate-Independent Plasticity, *J. Appl. Mech*. **70**, 644.

Munday, G. and Newitt, D.M. (1963), The Deformation of Transversely Loaded Discs Under Dynamic Loads, *Philos. Trans. Roy. Soc. London Ser. A*, **256**, 1.

Myszkowsky, J. (1971), Endliche Durchbiegungen Beliebig Eigenspannter Dünner Kreis, Ingenieur-Archiv, **40**, 1.

Nadai, A. (1950), *Theory of Flow and Fracture of Solids*, McGraw-Hill, New York.

Nagamatsu, A., Murota, T. and Jimma, T. (1970), On the Non-Uniform Deformation of Block in Plane Strain Compression Caused by Friction, *Bull. Japan Soc. Mech. Engrs.* **13**, 1389.

Naghdi, P.M. (1952), Bending of Elastoplastic Circular Plate with Large Deflection, *J. Appl. Mech.*, **19**, 293.

Naghdi, P.M. (1960), Stress-Strain Relations in Plasticity and Thermoplasticity, in *Plasticity* (eds., E.H. Lee and P.S. Symonds), Pergamon Press, New York, p. 121.

Naghdi, P.M. (1990), A Critical Review of the State of Finite Plasticity, Z. *angew. Math. Phys.*, **41**, 315.

Naghdi, P.M., Essenberg, F. and Koff, W. (1958), An Experimental Study of Subsequent Yield Surfaces in Plasticity, *J. Appl. Mech.*, **25**, 101.

Nagpal, V. (1977), On the Solution of Three-Dimensional Metal Forming Processes, *J. Engng. Indust., Trans. ASME*, **99**, 624.

Nagtegaal, J.C. and DeJong, J.E. (1981), Some Computational Aspects of Elastic/Plastic Large Strain Analysis, *Int. J. Num. Methods Engr.,* **17**, 15.

Nagtegaal, J.C., Parks, D.M., and Rice, J.C. (1974), On Numerically Accurate Finite Element Solutions in the Fully Plastic Range, *Comput. Meth. Appl. Mech. Engg.*, **4**, 153.

Naruse, K., Dodd, B. and Motoki, Y. (1993), Evaluation of Yield Criteria for Planar Anisotropy in Sheet Metal Using Experimental Results, Advances in Engineering Plasticity and its Applications (ed. W.B. Lee), Elsevier, Amsterdam, p. 235.

Naziri, H. and Pearce, R. (1968), The Effect of Plastic Anisotropy on Flange Wrinkling Behaviour During Sheet Metal Forming, *Int. J. Mech. Sci*., **10**, 681.

Neal, B.G. (1961), Effect of Shear Force on the Fully Plastic Moment of an I-Beam, *J. Mech. Engng. Sci.*, **3**, 258.

Neale, K.W. and Chater, E. (1980), Limit Strain Predictions for Rate Sensitive Anisotropic Sheets, *Int. J. Mech. Sci*., **22**, 563.

Needleman, A. (1972), A Numerical Study of Necking in Circular Cylindrical Bars, *J. Mech., Phys. Solids*, **20**, 111.

Needleman, A. (1975), Post-Bifurcation Behavior and Imperfection Sensitivity of Elastic/Plastic Circular Plates, *Int. J. Mech. Sci.*, **17**, 1.

Needleman, A. and Triantafyllidis, N. (1978), Void Growth and Local Necking in Biaxially Stretched Sheets, *J. Engng. Mat. Tech*., **100**, 164.

Nemat-Nasser, S. (1968), Finite Expansion of a Hole in a Rigid/Work-Hardening Disk of Initially Nonuniform Thickness, *J. Mech. Phys. Solids*, **16**, 195.

Nemat-Nasser, S. and Guo, W. (2003), Thermomechanical Response of DH-36 Structural Steel Over a Wide Range of Strain Rates and Temperatures, *Mech. Mater.*, **35**, 1023.

Nemat-Nasser, S., Isaacs, J.B. and Starrett, J.E. (1991), Hopkinson Techniques for Dynamic Recovery Experiments, *Proc. R. Soc. London*, **A20**, 371.

Nemat-Nasser, S., Li, Y.F. and Isaacs, J.B. (1994), Experimental/computational Evaluation of Flow Stress at High Strain Rates with Application to Adiabatic Shear Banding, *Mech. Mater.*, **17**, 111.

Nemirovsky, U.V. (1962), Carrying Capacity of Rib-Reinforced Circular Plates (in Russian), Izv. Nauk. USSR, *Mekh. Mack*, **2**, 163.

Ng, P, Chakrabarty, J. and Mellor, P.B. (1976), A Reappraisal of the Wedge-Drawing Test, *Int. J. Mech. Sci.*, **18**, 249.

Nicholas, T. (1971), Strain Rate History Effects in Several Metals in Torsion, *Experimental Mech.*, **11**, 153.

Nicholas, T. (1982), Elastic-Plastic Stress Waves, in *Impact Dynamics* (eds., A. Zukas et al.), Wiley, New York, pp. 95–153.

Nieh, T.G., Wadsworth, J. and Sherby, O.D. (1997), *Superplasticity in Metals and Ceramics*, Cambridge University Press, Cambridge, UK.

Nine, H.D. (1978), Drawbead Forces in Sheet Metal Forming, *Mechanics of Sheet Metal Forming* (eds., D.P. Koistinen and N.M. Wang), Plenum Press, New York, p. 179.

Nonaka, T. (1977), Shear and Bending Response of a Rigid Plastic Beam in Blast Type Loading, *Ingenieur-Archiv*, **46**, 35.

Norbury, A.L. and Samuel, T. (1928), The Recovery and Sinking in or Piling up of Material in the Brinell Test, and the Effects of these Factors on the Correlation of the Brinell Test with Certain Other Hardness Tests, *J. Iron. Steel Inst.*, **117**, 673.

Nordgren, R.P. and Naghdi, P.M. (1963), Finite Twisting and Expansion of a Hole in a Rigid/Plastic Plate, *J. Appl. Mech.*, **30**, 605.

Nurick, G.N., Pearce, H.T. and Martin, J.B. (1987), Prediction of Transverse Deflection and In-Plane Strain in Impulsively Loaded Thin Plates, *Int. J. Mech. Sei.*, **29**, 435.

Oblak, M. (1986), Elastoplastic Bending Analysis for Thick Plate, Z. *Angew. Math. Mech.*, **66**, 320.

Oh, S.I. (1982), Finite Element Analysis of Metal Forming Problems with Arbitrarily Shaped Dies, *Int. J. Mech. Sci.*, **24**, 479.

Oh, S.I. (1990), Application of Three Dimensional Finite Element Analysis to Shape Forming Processes, *J. Eng. Indust., Trans. ASME*, **112**, 36.

Oh, S.I. and Kobayashi, S. (1980), Finite Element Analysis of Plane Strain Sheet Bending, *Int. J. Mech. Sci.*, **22**, 583.

Oh, S.I., Chen, C.C. and Kobayashi, S. (1979), Ductile Fracture in Axisymmetric Extrusion and Drawing, Part 2, Workability in Extrusion and Drawing, *J. Engng. Indust. Trans. ASME*, **101**, 36.

Oh, S.I. and Kobayashi, S. (1975), An Approximate Method for a Three-Dimensional Analysis of Rolling, *Int. J. Mech. Sei.*, **17**, 293.

Ohashi, Y, and Kamiya, N. (1967), Bending of Thin Plates of Material with a Nonlinear Stress-Strain Relation, *Int. J. Mech. Sci.*, **9**, 183.

Ohashi, Y. and Kawashima, I. (1969), On The Residual Deformation of Elastoplastically Bent Circular Plate After Perfect Unloading, Z. *Angew. Math. Mech*, **49**, 275.

Ohashi, Y. and Murakami, S. (1964), The Elasto-Plastic Bending of a Clamped Thin Circular Plate, *Proc. 11th Int. Conf. Appl. Mech*, 212.

Ohashi, Y. and Murakami, S. (1966), Large Deflection of Elastoplastic Bending of a Simply Supported Circular Plate Under a Uniform Load, *J. Appl. Mech., Trans. ASME*, **33**, 866.

Ohashi, Y. and Okouchi, T. (1975), The Elastic-Plastic Deformation of a Supported Short Cylindrical Shell of Mild Steel Under Internal Pressure, *Int. J. Mech. Sci.*, **17**, 267.

Ohno, N. and Kachi, Y. (1986), A Constitutive Model of Cyclic Plasticity for Nonlinear Hardening Materials, *J. Appl. Mech.*, **53**, 395.

Olszak, W. and Sawczuk, A. (1967), *Inelastic Behaviour in Shells*, Noordhoff, Groningen.

Onat, E.T. (1955), Plastic Collapse of Cylindrical Shells Under Axially Symmetrical Loading, *Quart. Appl. Math.*, **13**, 63.

Onat, E.T. (1960), Plastic Analysis of Shallow Conical Shells, *Proc. ASCE*, **86**, EM6-1.

Onat, E.T. and Prager, W. (1954), Limit Analysis of Shells of Revolution, *Proc. Roy. Netherlands Acad. Sei.*, *B*, **57**, 534.

Onat, E.T. and Prager, W. (1955), Limits of Economy of Material in Shells, *De Ingenieur*, **67**, 46.

Onat, E.T. and Haythornthwaite, R.M. (1956), The Load Carrying Capacity of Circular Plates at Large Deflections, *J. Appl. Mech.*, **23**, 49.

Onat, E.T., Schumann, W. and Shield, R.T. (1957), Design of Circular Plates for Minimum Weight, Z. a*ngew. Math. Phys.*, **8**, 485.

Ore, E. and Durban, D. (1989), Elastoplastic Buckling of Annular Plates in Pure Shear, *J. Appl. Mech.*, **56**, 644.

Osakada, K. and Nimi, Y. (1975), A Study of Radial Flow Fields for Extrusion Through Conical Dies, *Int. J. Mech. Sei.*, **17**, 241.

Owens, R.H. and Symonds, P.S. (1955), Plastic Deformation of a Free Ring Under Concentrated Dynamic Loading, *J. Appl. Mech.*, **22**, 523.

Padmanabhan, K.A. and Davies, C.J. (1980), *Superplasticity-Mechanical and Structural Aspects, Environmental Effects, Fundamentals and Applications,* Springer-Verlag, Berlin.

Palusamy, S. (1971), Limit Analysis of Spherical Shells Subjected to External Axial Force, *Nuclear Engng. Design*, **16**, 13.

Palusamy, S. and Luid, N.C. (1972), Limit Analysis of Non-Axisymmetrically Loaded Spherical Shells, *J. Appl. Mech.*, **39**, 422.

Paquette, J.A. and Kyriakides, S. (2006), Plastic Buckling of Tubes Under Axial Compression and Internal Pressure, *Int. J. Mech. Sci.*, **48**, 855.

Park, J.J. and Kobayashi, S. (1984), Three-Dimensional Finite Element Analysis of Block Compression, *Int. J. Mech., Sci*., **26**, 165.

Park, J.J. and Oh, S.I. (1990), Application of Three-Dimensional Finite Element Analysis to Shape Rolling Processes, *J. Engng. Indust. Trans. ASME*, **112**, 36.

Parkes, E.W. (1955), The Permanent Deformation of a Cantilever Struck Transversely at its Tip, *Proc. Roy. Soc. London, Ser. A*, **228**, 462.

Parkes, E.W. (1958), The Permanent Deformation of an Encastre Beam Struck Transversely at any Point in its Span, *Proc. Inst. Civil Engrs.*, **10**, 277.

Parmar, A. and Mellor, P.B. (1978a), Prediction of Limit Strains in Sheet Metal Using a More General Yield Criterion, *Int. J. Mech. Sci*., **20**, 385.

Parmar, A. and Mellor, P.B. (1978b), Plastic Expansion of a Circular Hole in Sheet Metal Subjected to Biaxial Tensile Stress, *Int. J. Mech. Sci*., **20**, 707.

Paul, B. (1959), Carrying Capacity of Elastic-Plastic Shells with Various End Conditions Under Hydrostatic Compression, *J. Appl. Mech.*, **26**, 553.

Paul, B. and Hodge, P.G. (1958), Carrying Capacity of Elastic-Plastic Shells Under Hydrostatic Pressure, *Proc. 3rd US Nat. Congr. Appl. Mech, Providence*, p. 631.

Pearson, C.E. (1950), Bifurcation Criteria and Plastic Buckling of Plates and Columns, *J. Aeronaut. Sci.*, **7**, 417.

Pearson, C.E. (1956), A General Theory of Elastic Stability, *Quart. Appl. Math.*, **14**, 133.

Pell, W.H. and Prager, W. (1951), Limit Design of Plates, *Proc. 1st US Nat. Congr. Appl. Mech. (Chicago)*, 547.

Perrone, N. (1965), On a Simplified Method of Solving Impulsively Loaded Structures of Rate-Sensitive Materials, *J. Appl. Mech.*, **32**, 489.

Perrone, N. (1967), Impulsively Loaded Strain Rate Sensitive Plates, *J. Appl. Mech.*, **34**, 380.

Perrone, N. (1970), Impulsively Loaded Strain-Hardened Rate Sensitive Rings and Tubes, *Int. J. Solids Struct.*, **6**, 119.

Perrone, N. and Bhadra, P. (1984), Simplified Large Deflection Mode Solutions for Impulsively Loaded Viscoplastic Circular Membranes, *J. Appl. Mech.*, **51**, 505.

Petryk, H. (1983), A Stability Postulate for Quasi-Static Processes of Plastic Deformation, *Arch. Mech.*, **35**, 753.

Perzyna, P. (1958), Dynamic Load Carrying Capacity of a Circular Plate, *Arch. Mech. Stos.*, **10**, 635.

Perzyna, P. (1963), The Constitutive Equations for Rate Sensitive Plastic Solids, *Quart. Appl. Math.*, **2d**, 321.

Phillips, A. and Lee, C.W (1979), Yield Surface and Loading Surface, Experiments and Recommendations, *Int. J. Solids Struct.*, **15**, 715.

Phillips, A. and Weng. G.J. (1975), An Analytical Study of an Experimentally Verified Hardening Law, *J. Appl. Mech.*, **42**, 375.

Piekutowski, A.J., Forrestal, M.J., Poormon, K.L. and Warren, T.L. (1996), Perforation of Aluminum Plates with give-Nose Steel Rods at Normal and Oblique Impacts, *Int. J. Impact Engng*., **18**, 877.

Popov, E.P., Khojestch-Bakht, M. and Yaghmai, S. (1967), Analysis of Elastic-Plastic Circular Plates, *J. Engng. Mech. Div., Trans. ASCE*, **93**, 49.

Prager, W. (1953), On the Use of Singular Yield Conditions and Associated Flow Rules, *J. Appl. Mech.*, **20**, 317.

Prager, W. (1955), Minimum Weight Design of Plates, *De. Ingenieur (Amsterdam)*, **67**, 141.

Prager, W. (1956a), The General Theory of Limit Design, *Proc. 8th Int. Congr. Appl. Mech. (Istanbul, 1952)*, **2**, 65.

Prager, W. (1956b), A New Method of Analyzing Stress and Strain in Work-Hardening Plastic Solids, *J. Appl. Mech.*, **23**, 493.

Prager, W. (1959), *An Introduction to Plasticity*, Chap. 3, Addison-Wesley, Reading, MA.

Prager, W. (1961a), An Elementary Discussion of the Definition of Stress Rate, *Quart. Appl. Math.*, **18**, 403.

Prager, W. (1961b), *Introduction to Mechanics of Continua*, Ginn, Boston.

Prager, W. and Hodge, P.G. (1951), *Theory of Perfectly Plastic Solids*, Wiley, New York.

Prager, W. and Shield, R.T. (1959), Minimum Weight Design of Circular Plates Under Arbitrary Loading, Z. *Angew. Math. Phys.*, **10**, 421.

Prager, W. and Shield, R.T. (1967), A General Theory of Optimal Plastic Design, *J. Appl. Mech.*, **34**, 184.

Prandtl, L. (1924), Spanmungsverteilung in Plastischen Körpern, *Proc. 1st Int. Conf. Appl. Mech., Delft*, p. **43**.

Prandtl, L. (1928), Ein Gedankemodell Zur Kinetischen Theorie der fester körper, Z. *Angew. Math. Mech*., **8**, 85.

Presnyakov, A.A. (1976), *Superplasticity of Metals and Alloys*, The British Library, Wetherby, UK.

Pugh, H. and Li. D. (1970), *Mechanical Behavior of Metals under Pressure*, Elsevier, Amsterdam.

Pugsley, A. (1979), On the Crumpling of Thin Cylindrical Tubes, *Quart. J. Mech. Appl. Math.*, **32**, 1.

Pugsley, A. and Macaulay, M. (1960), Large Scale Crumpling of Thin Cylindrical Columns, *Quart. J. Mech. Appl. Math.*, **13**, 1.

Raghavan, K.S. (1995), A Simple Technique to Generate In-Plane Forming Limit Curves and Selected Applications, *Metall. Trans*., **26A**, 2075.

Rakhmatulin, H.A. (1945), On the Propagation of Waves of Unloading (in Russian), *Prikl. Mat. Mekh.*, **9**, 91.

Rakhmatulin, H.A. and Shapiro, G.S. (1948), *Prikl. Mat. Mekh.*, **12**, 369.

Ramberg, W. and Osgood, W. (1943), Description of stress-strain curves by three parameters, NACA Tech. Note No. **902**.

Ranshi, A.S., Chitkara, N.R. and Johnson, W. (1974), Plane Stress Plastic Collapse Loads for Tapered Cantilevers and Haunched Beams, *Int. J. Mech. Sci.*, **16**, 867.

Ranshi, A.S., Chitkara, N.R. and Johnson, W. (1976), Plastic Yielding of I-Beams under Shear, and Shear and Axial Load, *Int. J. Mech. Sci.*, **18**, 375.

Raphanel, J.L. and Symonds, PS. (1984), The Estimation of Large Deflections of a Portal Frame Under Asymmetric Pulse Loading, *J. Appl. Mech.*, **51**, 494.

Rawlings, B. (1964), Mode Changes in Frames Deforming Under Impulsive Loads, *J. Mech. Engng. Sci.*, **6**, 327.

Rebelo, N., and Wertheimer, T.B. (1986), General Purpose Procedures for Elastic/Plastic Analysis of Metal Forming Processes, *Proc 14 th NAMRC*, Minneapolis, MN, p. 414.

Recht, R.F. and Ipson, T.W (1963), Ballistic Performance Dynamics, *J. Appl. Mech.*, **30**, 384.

Reid, S.R. and Gui, X.G. (1987), On the Elastic-Plastic Deformation of Cantilever Beams Subjected to Tip Impact, *Int. J. Impact Engng.*, **6**, 109.

Reddy, B.D. (1979), Plastic Buckling of a cylindrical Shell in Pure Bending, *Int. J. Mech. Sci.*, **21**, 671.

Reddy, B.D. (1980), Buckling of Elastic-Plastic Discretely Stiffened Cylinders in Axial Compression, *Int. J. Solids Struct.*, **16**, 313.

Reddy, N.V., Dixit, P.M. and Lal, G.K. (1996), Central Burst and Optimal Die Profile for Axisymmetric Extrusion, *J. Manuf. Sci. Eng*., *Trans. ASME*, **118**, 579.

Rees, D.W.A. (1981) Anisotropic Hardening Theory and the Bauschinger Effect, *J. Strain Anal.*, **16**, 85.

Rees, D.W.A. (1982), Plastic Torsional Buckling of Thin-Walled Cylinders, *Appl. Mech.*, **49**, 663.

Reid, S.R., Wang, B. and Yu, T.X. (1995), Yield Mechanism for a Bent Cantilever Beam Subjected to a Suddenly Applied Constant Out-of-Plane Tip Force, *Int. J. Impact Engng.*, **16,** 89.

Reiss, R. (1974), Minimum Weight Design of Conical Shells, *J. Appl. Mech.*, **41**, 599.

Reiss, R. (1979), Minimum Weight Design of Shallow Conical Shells, *J. Appl. Mech.*, **46**, 599.

Reiss, R. and Megarefs, G.J. (1969), Minimal Design of Axisymmetric Cylindrical Shells Obeying Mises Criterion, *Acta Mech.*, **7**, 72.

Reuss, E. (1930), Berücksichtigung der elastishen formänderungen in der Plastizitätstheorie, Z. *Angew. Math. Mech.*, **10**, 266.

Rice, J.R. (1973), Plane Strain Slipline Field Theory for Anisotropic Rigid/Plastic Materials, *Mech. Phys. Solids*, **21**, 63.

Richmond, O. (1965), Theory of Streamlined Dies for Drawing and Extrusion, *J. Mech. Phys. Solids*, **13**, 154.

Richmond, O. and Azarkhin, A. (2000), Minimum Weight Axisymmetric Shell Structures, *Int. J. Mech. Sci*., **42**, 2439.

Richmond, O. and Morrison, H.L. (1967), Streamlined Wire Drawing Dies of Minimum Length, *J. Mech. Phys. Solids*, **15**, 195.

Rinehart, J.S. and Pearson, J. (1965), *Behavior of Metals Under Impulsive Loads*, Dover, New York.

Ripperger, E.A. (1960), Experimental Studies of Plastic Wave Propagation in Bar, in *Plasticity* (eds., E.H. Lee and PS. Symonds), Pergamon Press, New York, p. 475.

Robinson, M. (1971), A Comparison of Yield Surfaces for Thin Shells, *Int. J. Mech. Sei*, **13**, 345.

Rogers, T.G. (1967), Finite Expansion and Subsequent Unloading of Hole in Elastic-Plastic Plate of Initially Varying Thickness, *Quart. J. Mech. Appl. Math.*, **20**, 137.

Ronay, M. (1968), Second Order Elongation of Metal Tubes in Cyclic Torsion, *Int. J. Solids Struct.*, **4**, 509.

Rosenberg, Z. and Dekel, E. (1994), The Relation Between the Penetration Capability of Long Rods and Their Length to Diameter Ratios, *Int. J. Impact Engng.*, **15**, 125.

Ross, E.W. and Prager, W. (1954), On the Theory of the Bulge Test, *Quart. Appl. Math.*, **12**, 86.

Rowe, G.W. (1977), *Introduction to the Principles of Industrial Metalworking*, Arnold, London.

Ruiz, C. and Chukwujckwu, S.E. (1967), Limit Analysis and Design of Ring-Reinforced Radial Branches in Cylindrical and Spherical Vessels, *Int. J. Mech. Sei.*, **9**, 11.

Sachs, G. and Baldwin, W.M. (1946), Stress Analysis of Tube Sinking, *Trans. Amer. Soc. Mech. Engrs.*, **68**, 655.

Sagar, R. and Juneja, B.L. (1979), An Upper Bound Solution for Rat Tool Forging Taking into Account the Bulging of Sides, *Int. J. Mech. Tool Des. Res.*, **19**, 253.

Samanta, S.K. (1968), The Application of the Upper Bound Theorem to the Prediction of Indenting and Compressing Leads, *Acta Polytech. Scand.*, Mc-**38**.

Samanta, S.K. (1971), A New Die Profile with Higher Process Efficiencies, *Appl. Sei. Res.*, **25**, 54.

Sanchez, L.R. and Weinmann, K.J. (1996), An Analytical and Experimental Study of the Flow of Sheet Metal Between Circular Drawbeads, *J. Engng. Indust.*, *Trans. ASME*, **118**, 45.

Sankaranarayanan, R. (1960), Plastic Interaction Curves for Circular Cylindrical Shells Under Combined Lateral and Axial Pressures, *J. Franklin Inst.*, **270**, 5.

Sankaranarayanan, R. (1963), On the Dynamics of Plastic Spherical Shells, *J. Appl. Mech.*, **30**, 87.

Sankaranarayanan, R. (1966), On the Impact Pressure Loading of a Plastic Spherical Cap., *J. Appl. Mech.*, **33**, 704.

Saran, M.J., Schedin, E., and Samuelsson, A. (1990), Numerical and Experimental Investigations of Deep Drawing of Metal Sheets, *J. Eng. Indust., Trans. ASME*, **112**, 272.

Save, M. (1961), On Yield Conditions in Generalized Stresses, *Quart. Appl. Math*, **19**, 3.

Save, M.A. and Massonnet, C.E. (1972), *Plastic Analysis and Design of Plates, Shells and Disks*, North-Holland, Amsterdam.

Sawczuk, A. (1982), On Plastic Shell Theories at Large Strains and Displacements, *Int. J. Mech. Sei.*, **24**, 231.

Sawczuk, A. (1989), *Mechanics and Plasticity of Structures*, Ellis Horwood, Chichester.

Sawczuk, A. and Duszek, M. (1963), A Note on the Interaction of Shear and Bending in Plastic Plates, *Arch. Mech. Stos.*, **15**, 411.

Sawczuk, A. and Hodge, P.G. (1960), Comparison of Yield Conditions for Circular Cylindrical Shells, *J. Franklin Ints.*, **269**, 362.

Sawczuk, A. and Hodge, P.G. (1968), Limit Analysis and Yield Line Theory, *J. Appl. Mech.*, *Trans. ASME*, **35**, 357.

Sawczuk, A. and Jaeger, T. (1963), *Crenztragfähigkeits Theorie der Platten*, Springer-Verlag, Berlin.

Sawczuk, A., O'Donnell, W.J., and Porowsky, J. (1975), Plastic Analysis of Perforated Plates for Orthotropic Yield Criteria, *Int. J. Mech. Sci.*, **17**, 411.

Sayir, M. (1966), Kollapsbelastung von Rotationsymmetrischen Zylinderschalen, Z. *Angew. Math. Phys.*, **17**, 353.

Scrutton, R.F. and Marasco, A. (1995), The Dynamics of Closed Die Forging with Mechanical Presses, *J. Engng. Indust.*, **117**, 357.

Seide, P. and Weingarten, V.I. (1961), On the Buckling of Circular Cylindrical Shells Under Pure Bending, *J. Appl. Mech.*, **28**, 112.

Sewell, M.J. (1963), A General Theory of Elastic and Inelastic Plate Failure, Part I, *J. Mech. Phys. Solids*, **11**, 377.

Sewell, M.J. (1964), A General Theory of Elastic and Inelastic Plate Failure, Part II, *J. Mech. Phys. Solids*, **12**, 279.

Sewell, M.J. (1973), A Yield Surface Corner Lowers the Buckling Stress of an Elastic/Plastic Plate,*/Mech. Phys. Solids*, **21**, 19.

Seweryn, A. (1992), Analysis of Axisymmetric Steady State Extrusion Through Dies of Large Cone Angle by the Slipline Field Method, *Int. J. Mech. Sci.*, **33**, 997.

Schumann, W. (1958), On Limit Analysis of Plates, *Quart. Appl. Math.*, **16**, 61.

Seiler, J.A., Cotter, B.A. and Symonds, RS. (1956), Impulsive Loading of Elastic-Plastic Beams, *J. Appl. Mech.*, **23**, 516.

Seiler, J.A. and Symonds, PS. (1954), Plastic Deformation of Beams Under Distributed Dynamic Loads, *J. Appl. Phys.*, **25**, 556.

Senior, B.W. (1956), Flange Wrinkling in Deep Drawing Operations, *J. Mech. Phys. Solids*, **4**, 235.

Shah, S.N. and Kobayashi, S. (1977), A Theory on Metal Row in Axisymmetric Piercing and Extrusion, *J. Prod. Engng.*, **1**, 73.

Shabaik, A.H. and Thomsen, E.G. (1968), Investigation of the Application of the Visioplasticity Methods of Analysis to Metal Deformation Processes, Part II, US. Department of the Navy.

Shanley, F.R. (1947), Inelastic Column Theory, *J. Aeronaut. Sei.*, **14**, 251.

Shapiro, G.S. (1959), On a Rigid-Plastic Annular Plate Under Impulsive Load (translation from Russian), *J. Appl. Math. Mech.*, **23**, 234.

Shapiro, G.S. (1961), On Yield Surfaces for Ideally Plastic Shells, *Problems of Continuum Mechanics*, SIAM, Philadelphia, PA.

Shepherd, W.M. and Gaydon, F.A. (1957), Plastic Bending of a Ring Sector by End Couples, *Mech. Phys. Solids*, **5**, 296.

Sherbourne, A.N. and Srivastava, A. (1971), Elastic-Plastic Bending of Restrained Pin-Ended Circular Plates, *Int. J. Mech. Sei.*, **13**, 231.

Sheu, C.Y. and Prager, W. (1969), Optimal Plastic Design of Circular and Annular Plates with Piecewise Constant Cross Section, *J. Mech. Phys. Solids*, **17**, 11.

Shield, R.T. (1955a), Plastic Flow in a Converging Conical Channel, *J. Mech. Phys. Solids*, **3**, 246.

Shield, R.T. (1955b), On the Plastic Flow of Metals Under Conditions of Axial Symmetry, *Proc. Roy. Soc. London Sec. A*, **233**, 267.

Shield, R.T. (1955c), The Plastic Indentation of a Layer by a Rat Punch, *Quart. Appl. Math.*, **13**, 27.

Shield, R.T. (1960a), Plate Design for Minimum Weight, *Quart. Appl. Math.*, **18**, 131.

Shield, R.T. (1960b), Optimum Design of Shells, *Appl. Mech.*, **27**, 316.

Shield, R.T. (1963), Optimum Design Methods for Multiple Loading, Z. *Angew. Math. Phys.*, **14**, 38.

Shield, R.T. and Drucker, D.C. (1953), The Application of Limit Analysis to Punch Indentation Problems, *J. Appl. Mech., Trans. ASME*, **20**, 453.

Shield, R.T. and Ziegler, H. (1958), On Prager's Hardening Rule, *Z. Angew. Math. Phys.*, **9**, 260.

Shrivastava, H.R (1979), Inelastic Buckling of Axially Compressed Cylindrical Shells, *Int. J. Solids Struct.*, **15**, 567.

Shull, H.E. and Hu, L.W. (1963), Load Carrying Capacity of Simply Supported Rectangular Plates, *J. Appl. Mech.*, **30**, 617.

Siebel, E. (1923), *Stahl und Eisen*, Düsseldorf, **43**, 1295.

Siebel, E. (1947), Der derzeitige stand der Erkenntnisse über die mechanischen Vorgange beim Drahtziehen, *Stahl und Eisen*, **66**, 171.

Sinclair, G.B., Follansbee, P.S. and Johnson, K.L. (1985), Quasi-Static Normal Indentation of an Elastic-Plastic Half Space by a Rigid Sphere, *Int. J. Solids Struct.*, **21**, 865.

Skrzypek, J.J. and Hetnarski, R.B. (1993), *Plasticity and Creep, Theory, Examples and Problems,* CRC Press, Boca Raton, Florida.

Slater, R.A.C. (1979), *Engineering Plasticity. Theory and Application to Metal Forming,* Macmillan, London.

Skrzypek, J.J. and Hetnarski, R.B. (1993), *Plasticity and Creep: Theory, Examples and Problems*, CRC Press, Boca Raton, Florida.

Sobotka, Z. (1989), *Theory of Plasticity and Limit Design of Plates*, Academia, Prague.

Sokolovsky, W.W. (1948a), Elastic-Plastic Bending of Circular and Annular Plates (in Russian), *Prikl. Mat. Mekh.*, **12**, 141.

Sokolovsky, W.W. (1948b), The Propagation of Elastic Viscoplastic Waves in Bars (in Russian), *Prikl. Math. Mekh.*, **12**, 261.

Sokolovsky, V.V. (1969), *Theory of Plasticity* (in Russian), 3rd Edition, Moscow.

Sortais, H.C. and Kobayashi, S. (1968), An Optimum Die Profile for Axisymmetric Extrusion, *Int. J. Mach. Tool Des. Res.*, **8**, 61.

Southwell, R.V. (1913), On the Collapse of Tubes by External Pressure, *Phil. Mag.*, **25**, 687.

Sowerby, R. and Duncan, J.L. (1971), Failure of Sheet Metal in Biaxial Tension, *Int. J. Mech. Sci.*, **13**, 217.

Spencer, A.J.M. (1964), The Approximate Solution of Certain Problems of Axially Symmetric Plastic Row, *J. Mech. Phys. Solids*, **12**, 231.

Steinberg, D. and Lund, O. (1989), A Constitutive Model for Strain Rates from 10^{-4} to 10^{6} s^{-1}, *J. Appl. Phys.*, **65**, 1528.

Sternglass, E.J. and Stuart, D.A. (1953), An Experimental Study of Propagation of Transient Longitudinal Deformation in Elastic-Plastic Media, *J. Appl. Mech.*, **20**, 427.

Stören, S. and Rice, J. (1975), Localized Necking in Thin Sheets, *J. Mech. Phys. Solids*, **23**, 421.

Storakers, B. (1966), Finite Plastic Deformation of a Circular Membrane Under Hydrostatic Pressure, *Int. J. Mech. Sei.*, **8**, 619.

Storakers, B. and Larson, P. (1994), On Brinell and Boussinesq Indentation of Creeping Solids., *J. Mech. Phys. Solids*, **42**, 307.

Stoughton, T.B. (2000), General Forming Limit Criterion for Sheet Metal Forming, *Int. J. Mech. Sci.*, **42**, 1.

Stout, M.G. and Hecker, S.S. (1983), Role of Geometry in Plastic Instability and Fracture of Tubes and Sheets, *Mech. Mat*., **2**, 23.

Stout, M.G., Hecker, S.S., and Bourcier, R. (1983), An Evaluation of Anisotropic Effective Stress-Strain Criteria for the Biaxial Yield and Flow of 202 Aluminium Tubes, *J. Engng. Mat. Technol*, **105**, 242.

Stronge, W.J. (2006), *Impact Mechanics*, Cambridge University Press, Cambridge.

Stronge, W.J., Shu, D. and Shim, V.P.W. (1990), Dynamics Modes of Plastic Deformation for Suddenly Loaded Curved Beams, *Int. J. Impact Engng.*, **9**, 1.

Stronge, W.J. and Yu, T.X. (1993), *Dynamic Models for Structural Plasticity*, Springer-Verlag, London.

Swift, H. (1947), Length Changes in Metals Under Torsional Overstrain, Engineering, **163**, 253.

Swift, H.W. (1949), Stresses and Strains in Tube Drawing, *Phil. Mag., Ser*., **11**, 883.

Swift, H.W. (1952), Plastic Instability Under Plane Stress, *J. Mech. Phys. Solids*, **1**, 1.

Symonds, P.S. (1953), Dynamic Load Characteristics in Plastic Bending of Beams, *J. Appl. Mech.*, **20,** 475.

Symonds, PS. (1954), Large Plastic Deformation of Beams Under Blast Type Loading, *Proc. 2nd U.S. Nat. Congr. Appl. Mech., Ann Arbor*, p. 506.

Symonds, PS. (1980), Finite Elastic and Plastic Deformations of Pulse Loaded Structures by an Extended Mode Technique, *Int. J. Mech. Sci.*, **22**, 597.

Symonds, P.S. and Fleming, W.T. (1984), Parkes Revisited: On Rigid-Plastic and Elastic-Plastic Dynamic Structural Analysis, *Int. J. Impact Engng.*, **2**, 1.

Symonds, P.S. and Leth, C.F. (1954), Impact of Finite Beams of Ductile Metal, *J. Mech. Phys. Solids*, **2**, 92.

Symonds, P.S. and Mentel, T.J. (1958), Inpulsive Loading of Plastic Beams with Axial Restraint, *J. Mech. Phys. Solids*, **6**, 183.

Symonds, P.S. and Wierzbicki, T. (1979), Membrane Mode Solutions for Impulsively Loaded Circular Plates, *J. Appl. Mech.*, **46**, 58.

Szczepinski, W. (1962), The Method of Successive Approximation of Some Strain-Hardening Solutions, *Proc. 4th U.S. Nat. Congr. Appl. Mech.*, p. 131.

Szczepinski, W., Dietrich, L., Drescher, E., and Miastkowski, J. (1966), Plastic Flow of Axially Symmetric Notched Bars Pulled in Tension, *Int. J. Solid Struct.*, **2**, 543.

Tabor, D. (1951), *The Hardness of Metals*, Clarendon Press, Oxford, UK.

Tadros, A.K. and Mellor, P.B. (1978), An Experimental Study of the In-Plane Stretching of Sheet Metal, *Int. J. Mech. Sci*., **20**, 121.

Taghvaipour, M. and Mellor, P.B. (1970), Plane Strain Compression of Anisotropic Sheet Metal, *Proc. Instn. Mech. Engrs*., **185**, 593.

Taghvaipour, M., Chakrabarty, J. and Mellor, P.B. (1972), The Variation of the R-value of Titanium with Increasing Strain, *Int. J. Mech. Sci*., **14**, 117.

Tan, Z., Persson, B., and Magnusson, C. (1995), Plastic Bending of Anisotropic Sheet Metals, *Int. J. Mech. Sci*., **37**, 405.

Tanaka, M. (1972), Large Deflection Analysis of Elastic-Plastic Circular Plates with Combined Isotropic and Kinematic Hardening, *Ingenieur-Archiv*, **41**, 342.

Tang, S.C. (1981), Large Elastic/Plastic Analysis of a Flanged Hole Forming, *Comput. Struct.*, **13**, 363.

Tate, A. (1969), Further Results on Long Rod Penetration, *J. Mech. Phys. Solids*, **17**, 141.

Taylor, G.I. (1938), Plastic Strain in Metals, *J. Inst. Metals*, **62**, 307.

Taylor, G.I. (1942), The Plastic Wave in a Wire Extended by an Impact Load, British Official Report, RC 329.

Taylor, G.I. (1948a), The Formation and Enlargement of a Circular Hole in a Thin Plastic Sheet, *Quart. J. Mech. Appl. Math.*, **1**, 101.

Taylor, G.I. (1948b), The Use of Flat-Ended Projectiles for Determining Dynamic Yield Stress, I, *Proc. Roy. Soc. London Ser. A*, **194**, 289.

Taylor, G.I. and Quinney, H. (1931), The Plastic Distortion of Metals, *Phil. Trans. Roy. Soc. London Ser. A*, **230**, 323.

Tekinalp, B. (1957), Elastic-Plastic Bending of a Built-in Circular Plate Under Uniformly Distributed Load, *J. Mech. Phys. Solids*, **5**, 135.

Thomas, H.K. 1961), *Large Plastic Flow and Fracture in Solids*, Thames Hudson, London.

Thomson, T.R. (1975), Influence of Material Properties in the Forming of Square Shells, *J. Australian Inst. Metals*, **20**, 106.

Thomson, W.T. (1955), An Approximate Theory of Armour Penetration, *J. Appl. Phys.*, **26**, 80.

Thomsen, E.G., Yang, C.T., and Kobayashi, S. (1965), *Mechanics of Plastic Deformation in Metal Processing*, Macmillan, New York.

Timoshenko, S.P. and Gere, J.M. (1961), *Theory of Elastic Stability,* 2nd ed., McGraw-Hill, New York.

Ting, T.C.T. (1964), The Plastic Deformation of a Cantilever Beam with Strain Rate Sensitivity Under Inpulsive Loading, *J. Appl. Mech.*, **11**, 38.

Ting, T.C.T. (1972), The Initiation of Combined Stress Waves in a Thin-Walled Tube due to Impact Loading. *Int. J. Solids Struct.*, **8**, 269.

Ting, T.C.T. (1977), Plastic Wave Speeds in Isotropically Work-Hardening Material, *J. Appl. Mech.*, **44**, 68.

Tirosh, J. (1971), Dead Zone Formation in Plastic Axially Symmetric Converging Row, J *Mech. Phys. Solids*, **19**, 237.

Tirosh, J., Tylis, A. and Davidi, G. (2008), Upper and Lower Bounds to Indentation of Rigid Ball into Semi Infinite Solid, *Int. J. Mech. Sci*., **50**, 328.

Toh, C.H. and Kobayashi, S. (1985), Deformation Analysis and Blank Design in Square Cup Drawing, *Int. J. Mech. Tool Des. Res*., **25**, 15.

Toth, L.S. Jonas, J.J., Gilormini, P. and Borcroix, B. (1992), Length Changes During Free-End Torsion: A Rate Sensitive Analysis, *Int. J. Plasticity*, **6**, 83.

Travis, F.W. and Johnson, W. (1962), Experiments in the Dynamic Deformation of Clamped Circular Sheets of Various Metals Subject to an Underwater Explosive Charge, *Sheet Metal Indust.*, **39**, 456.

Tresca, H. (1864), On the Flow of Solid Bodies Subjected to High Pressures, *C.* R. *Acad. Sci. Paris*, **59**, 754.

Triantafyllidis, N., Maker, B. and Samanta, S.K. (1986), An Analysis of Drawbeads in Sheet Metal Forming, Part I: Problem Formulation, *J. Engng. Mater. Technol., Trans. ASME*, **108**, 321.

Tseng, N.T. and Lee, C.C. (1983), Simple Plasticity Model of the Two-Surface Type, *J. Engng. Mech., Trans. ASCE*, **109**, 795.

Tsuta, T. and Yin, Y. (1998), Rigid/Plastic Theory for Porous Materials Including Void Evolution and Mixed Hardening Effects, *Metals Mater.*, **4**, 359.

Tsutsumi, S. and Kato, T. (994), A New Approach for Estimating Die Profile Friction in Deep Drawing, *J. Engng. Indust., Trans. ASME*, **116**, 183.

Tugcu, P. (1991), Plate Buckling in the Plastic Range, *Int. J. Mech. Sei.*, **33**, 1.

Turvey, G.J. (1979), Thickness-Tapered Circular Plates–An Elastic-Plastic Large Deflection Analysis, *J. Struct. Mech., Trans. ASCE*, **7**, 247.

Tvergaard, V. (1981), Influence of Voids on Shear Band Instabilities Under Plane Strain Conditions, *Int. J. Fracture*, **17**, 389.

Tvergaard, V. (1982), Material Failure in Void Coalescence in Localized Shear Bands, *Int. J. Solids Struct.*, **18**, 659.

Tvergaard, V. and Needleman A. (1984), Analysis of Cup-Cone Fracture in a Round Tensile Bar, *Acta Metall.*, **32**, 157.

Unksov, E.P. (1961), *An Engineering Theory of Plasticity*, Butterworth, London.

Valanis, K.C. (1975), On the Foundations of the Endochronic Theory of Plasticity, *Arch. Mech.*, **27**, 857.

Valanis K.C. (1980), Fundamental Consequences of a New Intrinsic Time Measure Plasticity as a Limit of the Endochronic Theory, *Arch. Mech.*, **32**, 171.

Van Rooyen, G.T. and Backofen, W.A. (1960), A Study of Interface Friction in Plastic Compression, *Int. J. Meek Sei.*, **8**, 1.

Vaughan, H. and Florence, A.L. (1970), Plastic Flow Buckling of Cylindrical Shells Due to Impulsive Loading, *J. Appl. Mech.*, **37**, 171.

Venter, R., Johnson, W., and de Malherbe, M.C. (1971), Yield Loci of Anisotropic Aluminium Using a Frictionless Flat Rectangular Punch, *J. Mech. Engng. Sci.*, **13**, 416.

Vertin, K.D. and Majlessi, S.A. (1993), Finite Element Analysis of the Axisymmetric Upsetting Process Using the Deformation Theory of Plasticity, *J. Engng. Indust., Trans. ASME*, **115**, 450.

Vial, C., Hosford, W.F. and Caddell, R.M. (1983), Yield Loci of Anisotropic Sheet Metals, *Int. J. Mech. Sci.*, **25**, 12.

Voce, E. (1948), The Relationship Between Stress and Strain for Homogeneous Deformation, *J. Inst. Metals,* **74**, 537.

von Karman, Th. (1910), Untersuchungen über Knickfestigkeit, *Mitteilungen über Forschungsarbeit, Wer. Deut. Ing.*, Vol. 81, Springer-Verlag, Berlin.

von Karman, Th. (1942), On the Propagation of Plastic Deformation in Solids, NDRC Report No. A-29.

von Karman, Th. and Duwez, P.E. (1950), The Propagation of Plastic Deformation in Solids, *J. Appl. Phys.*, **21**, 987.

Wagoner, R.H. (1980), Measurement and Analysis of Plane Strain Work-Hardening, Metall. Trans., **11A**, 165.

Wang, A.J. (1955), The Permanent Deflection of a Plastic Plate Under Blast Loading, *J. Appl. Mech.*, **22**, 375.

Wang, A.J. and Hopkins, H.G. (1954), On the Plastic Deformation of Built-in Circular Plates Under Impulsive Loading, *J. Mech. Phys. Solids*, **3**, 22.

Wang, C.M. and Aung, T.M. (2007), Plastics Buckling Analysis of Thick Plates Using p-Ritz Method, *Int. J. Solids Struct*., **44**, 6239.

Wang, C.M., Xiang, Y. and Chakrabarty, J. (2001), Elastic/Plastics Buckling of Thick Plates, *Int. J. Solids Struct*., **39**, 8617.

Wang, C.T., Kinzel, G. and Altan, T. (1993), Mathematical Modeling of Plane Strain Bending of Plate and Sheet, *J. Mater. Process. Technol*., **39**, 279.

Wang, N.M. (1970), Large Plastic Deformation of a Circular Sheet Caused by Punch Stretching, *J. Appl. Mech.*, **37**, 431.

Wang, N.M. (1982), A Mathematical Model of Drawbead Forces in Sheet Metal Forming, *J. Appl. Metalworking*, **2**, 193.

Wang, N.M. (1984), A Rigid/Plastic Rate Sensitive Finite Element Method for Modeling Sheet Metal Forming Processes, in Numerical Analysis of Forming Processes (eds., J.F.T. Pittman et al.), Wiley, New York, p. 117.

Wang, N.M. and Budiansky, B. (1978), Analysis of Sheet Metal Stampings by the Finite Element Method, *J. Appl. Mech*., **45**, 73.

Wang, N.M. and Shammamy, M.R. (1969), On the Plastic Bulging of Metal Diaphragms Under Hydrostatic Pressure, *J. Mech. Phys. Solids*, **17**, 43.

Wang, X. and Lee, L.H.N. (1989), Wrinkling of an Unevenly Stretched Sheet Metal,/*Engng. Mater. Technol., Trans. ASME*, **111**, 235.

Wasti, S.T. (1970), The Plastic Bending of Transversely Isotropic Circular Plates, *Int. J. Mech. Sci.*, **12**, 109.

Weil, N.A. and Newmark, N.M. (1955), Large Plastic Deformation of Circular Membranes, *J. Appl. Mech.*, **22**, 533.

Weiss, H.J., Prager, W. and Hodge, PG. (1952), Limit Design of a Full Reinforcement for a Circular Cutout in a Uniform Slab, *J. Appl. Mech.*, **19**, 307.

Whiffen, A.C. (1948), The Use of Flat-Ended Projectiles for Determining Dynamic Yield Stress, II, *Proc. Roy. Soc. London Ser. A*, **194**, 300.

White, M.P. and Griffis, Le Van (1947), The Permanent Strain in a Uniform Bar due to Longitudinal Impact, *J. Appl. Mech., Trans. ASME*, **69**, 33.

Whiteley, R.L. (1960), The Importance of Directionality in Deep Drawing Quality Sheet Steel, *Trans. Amer. Soc. Metals*, **52**, 154.

Wierzbicki, T. and Abramowicz, W. (1983), On the Crushing Mechanism of Thin-Walled Structures, *J. Appl. Mech.*, **50**, 727.

Wierzbicki, T. and Jones, N. (1989), *Structural Failure* (eds.), Wiley, New Delhi.

Wierzbicki, T. and Nurick, G.N. (1996), Large Deformation of Thin Plates under Localized Impulsive Loading, *Int. J. Impact Engng.*, **18**, 800.

Wifi, S.A. (1976), An Incremental Complete Solution of the Stretch Forming and Deep Drawing of a Circular Blank Using a Hemispherical Punch, *Int. J. Mech. Sei.*, **18**, 23.

Wilcox, R.J. and Whitton, P.W. (1958), The Cold Extrusion of Metals Using Lubrication at Slow Speeds, *J. Instn. Metals*, **87**, 289.

Wilson, D.V. (1966), Plastic Anisotropy in Sheet Metals, J. Inst. Metals, 94, 84.

Wilson, D.V., Roberts, W.T. and Rodrigues, P.M.B (1981), Metall. Trans., 12A, 1595.

Wilson, W.R.D. and Hector, L.G. (1991), Hydrodynamic Lubrication in Axisymmetric Stretch Forming, Part I: Theoretical Analysis, Part II: Experimental Investigation, *J. Tribology Trans. ASME*, **113**, 659. 667.

Wistreich, J.G. (1955), Investigation of the Mechanics of Wire Drawing, *Proc. Inst. Meek Engrs.*, **169**, 123.

Wistreich, J.G. (1958), Fundamentals of Wire Drawing, *Metall. Rev.* **3**, 97.

Woo, D.M. (1964), The Analysis of Axisymmetric Forming of Sheet Metal and the Hydrostatic Bulging Processes, *Int. J. Mech. Sci*, **6**, 303.

Woo, D.M. (1968), On the Complete Solution of the Deep Drawing Problem, *Int. J. Mech. Sci.*, **10**, 83.

Woodthorpe, J. and Pearce, R. (1969), The Effects of r and n Upon the Forming Limit Diagram of Sheet Metal, *Sheet Metal Indust.*, **46**, 1061.

Woodthorpe, J. and Pearce, R. (1970), The Anomalous Behaviour of Aluminium Sheet Under Balanced Biaxial Tension, *Int. J. Mech. Sci.*, **12**, 341.

Wu, H.C. (1996), The Torsion Test and its Role in Constitutive Equations for Metals, *Chinese J. Mechanics*, **12**, 121.

Wu, H.C. (2002), Anisotropic Plasticity of Sheet Metals Using the Concept of Combined Isotropic-Kinematic Hardening, *Int., J. Plasticity*, **18**, 1661.

Wu, H.C. and Lin, H.C. (1974), Combined Plastic Wave in a Thin-Walled Tube, *Int. J. Solids Struct.*, **10**, 903.

Wu, H.C, Hong, H.K. and Lu, J.K. (1995), An Endochronic Theory Accounted for Deformation Induced Anisotropy, *Int. J. Plasticity*, **11**, 145.

Wu, H.C., Hong, H.K. and Shiao, Y.P. (1998), Anisotropic Plasticity with Application to Sheet Metals, *Int. J. Mech. Sci.*, **41**.

Wu, H.C., Xu, Z.Y. and Wang, P.T. (1997), Determination of Shear Stress-Strain Curve from Torsion Tests for Loading, Unloading and Cyclic Loading, *J. Eng. Mat. Technol., Trans. ASME*, **119**, 113.

Wu, H.C., Xu, Z.Y. and Wang, P.T. (1998), Torsion Test of Aluminum in the Large Plastic Range, *Int. J. Plasticity*, **13**, 873.

Xu, B.Y, Liu, Y.H. and Cen, Z.Z. (1998), Some Developments in Limit Analysis Solutions of Structures, *Metals and Materials*, **4**, 329.

Yamada, Y. and Aoki, I. (1966), On the Tensile Plastic Instability in Axisymmetric Deformation of Sheet Metal, *Int. J. Mech. Sci.*, **8**, 665.

Yamada, Y. and Koide M. (1968), Analysis of the Bore Expanding Test by the Incremental Theory of Plasticity, *Int. J. Mech. Sci.*, **10**, 1.

Yamaguchi, K. and Mellor, P.B. (1976), Thickness and Grain Size Dependence of Limit Strains in Sheet Metal, *Int. J. Mech. Sci.*, **18**, 85.

Yang, D.Y and Han, C.H. (1987), A New Formulation of Generalized Velocity Field for Axisymmetric Forward Extrusion Through Arbitrary Curved Dies, *J. Engng. Indust., Trans. ASME*, **109**, 161.

Yang, D.Y. and Kim, J.H. (1986a), An Analysis for Three-Dimensional Upset Forging of Elliptical Disks, *Int. J. Mack Tool Des. Res.*, **26**, 147.

Yang, D.Y. and Kim, J.H. (1986b), A Rigid/Plastic Finite Element Formulation for the Analysis of the General Deformation of Planar Anisotropic Sheet Metals and its Applications, *Int. J. Mech. Sci.* **28**, 825.

Yang, D.Y. and Kim, Y.J. (1987), Analysis of Hydrostatic Bulging of Anisotropic Rectangular Diaphragms by the Rigid/Plastic Finite Element Method, *J. Eng. Indust., Trans. ASME*, **109**, 149.

Yang, D.Y. and Lee, C.H. (1978), Analysis of Three-Dimensional Extrusion of Sections Through Curved Dies by Conformal Transformation, *Int. J. Meek Sei.*, **20**, 541.

Yang, D.Y. and Ryoo, J.S. (1987), n Investigation into the Relationship Between Torque and Load in Ring Rolling, *J. Engng. Indust., Trans. ASME*, **109**, 190.

Yeom, D.J. and Robinson, M. (1996), Limit Analysis of a Spherical Shell Under Axial Loading on Central Boss, *J. Pressure Vessel Technol.*, **118**, 454.

Yoshida, K. and Miyauchi, K. (1978), Experimental Studies of Material Behavior as Related to Sheet Metal Forming, in Mechanics of Sheet Metal Forming (eds., D.P. Koistinen and N.M. Wang), Plenum Press, New York, p. 10

Yoshida, F. and Uemori, T, (2003), A Model for Large Strain Cyclic Plasticity and its Application to Springback Simulation, *Int. J. Mech. Sci*., **45**, 1687.

Youngdahl, C.K. (1971), Influence of Pulse Shape on the Final Plastic Deformation of Circular Plates, *Int. J. Solids Struct.*, **7**, 1127.

Youngdahl, C.K. (1972), Dynamic Plastic Deformation of Cylindrical Shells, *J. Appl. Mech.*, **39**, 746.

Yu, T.X. and Chen, F.L. (1992), The Large Deflection Dynamic Plastic Response of Rect Plates, *Int. J. Impact Engng.*, **12**, 603.

Yu, T.X. and Johnson, W. (1982), The Large Elastic-Plastic Deflection with Springback of a Circular Plate Subjected to Circumferential Moments, *J. Appl. Mech.*, **49**, 507.

Yu, T.X. and Stronge, W.J. (1985), Wrinkling of a Circular Plate Stamped by a Spherical Punch, *Int. J. Solid Struct.*, **21**, 995.

Yu, T.X. and Jones, N. (1989), Numerical Simulation of a Clamped Beam Under Impact Loading, *Comput Struct.*, **32**, 281.

Yu, T.X., Symonds, P.S., and Johnson, W. (1985), A Quadrental Circular Beam Subjected to Radial Impact in its own Plane at its Tip by a Rigid Mass, *Proc. Roy. Soc. London Ser. A*, **400**, 19.

Yu, T.X. and Zhang, L.C. (1996), *Plastic Bending Theory and Applications*, World Scientific, Singapore.

Zaid, M. (1958), On the Carrying Capacity of Plates of Arbitrary Shape and Variable Fixity Under a Concentrated Load, *J. Appl. Mech.*, **25**, 598.

Zaid, M. and Paul, B. (1958), Normal Perforation of a Thin Plate by Truncated Projectiles, *J. Franklin Inst.*, **265**, 317.

Zhang, L.C. and Yu, T.X. (1987), An Investigation of the Brazier Effect of a Cylindrical Tube Under Pure Elastic-Plastic Bending, *Int. J. Press. Vess. Piping*, **30**, 77.
Zhang, L.C. and Yu, T.X. (1991), An Experimental Investigation on Stamping of Elastic-Plastic Circular Plates, *J. Mater. Process. Technol.*, **28**, 321.
Zhao, L., Sowerby, R. and Sklad, M.P. (1996), A Theoretical and Experimental Investigation of Limit Strains in Sheet Metal Forming, *Int. J. Mech. Sci.*, **38**, 1307.
Zhu, L. (1996), Transient Deformation Modes of Square Plates Subjected to Explosive Loading, *Int. J. Solids Struct.*, **33**, 301.
Ziegler, H. (1958), Kuppeln Gleicher Festigkeit, *Ingenieur-Archiv*, **26**, 378.
Ziegler, H. (1959), A Modification of Prager's Hardening Rule, *Quart. Appl. Math.* **17**, 55.
Ziekiecwicz, O.C. (1977), *The Finite Element Method*, Second Edition, McGraw-Hill, London.
Zienkiewicz, O.C., Jain, PC and Onate, E. (1978), Flow of Solids During Forming and Extrusion: Some Aspects of Numerical Solutions, *Int. J. Solids Struct.*, **14**, 15.
Zukas, J.A. (1982), Penetration and Perforation of Solids, in *Impact Dynamics* (eds., J.A. Zukas et al.), Wiley, New York, p. 155.
Zukas, J.A. and Gaskill, B. (1996), Ricochet of Deforming Projectiles from Deforming Plates, *Int. J. Impact. Engng.*, **18**, 60.

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