

BIBLIOGRAPHY

- Ahadi, A. and Krenk, S. (2000). Characteristic state plasticity for granular materials, Part II: Model calibration and results. *International Journal of Solids and Structures*, **37**, 6361–6380.
- Aifantis, E. C. (1984). On the microstructural origin of certain inelastic models. *Journal of Engineering Materials and Technology*, **106**, 326–330.
- Alfrey, T. J. (1957). *Mechanical Behavior of High Polymers*. Interscience Publishers.
- Allen, D. H. (1991). Thermomechanical coupling in inelastic solids. *Applied Mechanics Reviews*, **44**, 361–373.
- Altenbach, H. (1999). Classical and non-classical creep models. In H. Altenbach and J. J. Skrzypek, editors, *Creep and Damage in Materials and Structures*, pages 45–95. Springer-Verlag.
- Argyris, J. and Mlejnek, H.-P. (1991). *Dynamics of Structures*. North-Holland.
- Argyris, J. H. (1965a). Three-dimensional anisotropic and inhomogeneous media. Matrix analysis for small and large displacements. *Ingenieur-Archiv*, **34**, 33–55.
- Argyris, J. H. (1965b). Elasto-plastic matrix displacement analysis of three-dimensional continua. *Journal of Aeronautical Society*, **69**, 633–635.
- Argyris, J. H., Vaz, L. E., and Willam, K. J. (1981). Integrated finite-element analysis of coupled thermoviscoplastic problems. *Journal of Thermal Stresses*, **4**, 121–153.
- Armstrong, P. J. and Frederick, C. O. (1966). *A mathematical representation of the multiaxial Bauschinger effect*. Berkeley Nuclear Laboratories, Report, RD/B/N731.
- Armero, F. and Simo, J. C. (1992). A new unconditionally stable fractional step method for non-linear coupled thermomechanical problems. *International Journal for Numerical Methods in Engineering*, **35**, 737–766.
- Armero, F. and Simo, J. C. (1993). A priori stability estimate, and unconditionally stable product formula algorithms for nonlinear coupled thermoplasticity. *Computer Methods in Applied Mechanics and Engineering*, **98**, 41–104.

- ASCE Commite on Concrete and Masonry Structures (1982). *Finite Element Analysis of Reinforced Concrete Structures*. ASCE Special Publication.
- Ashby, M. F. and Jones, D. R. H. (1980). *Engineering Materials I. An Introduction to their Properties and Applications*. Pergamon Press.
- Axelsson, K. (1979). *On Constitutive Modelling in Metal Plasticity. With special emphasis on aniotropic strain hardening and finite element formulation*. Publ.79:2, Dept. of Struct. Mech., Chalmers University of Technology, Sweden.
- Axelsson, K. and Samuelsson, A. (1979). Finite element analysis of elasto-plastic materials displaying mixed hardening. *International Journal for Numerical Methods in Engineering*, **14**, 211–225.
- Ayres, F. J. (1962). *Theory and Problems of Matrices*. Schaum Publishing Company.
- Bailey, R. W. (1929). *Creep of steel under single and compound stresses, and the use of high initial temperature in steam power plants*, volume 3, pages 1089–1095. Trans. World Power Conference. Tokyo.
- Balmer, G. G. (1949). *Shearing strength of concrete under high triaxial stress-computation of Mohr's envelope as a curve*. Structural Research Laboratory Report No. Sp-23, United States Department of Interior, Bureau of Reclamation.
- Baltov, A. and Sawczuk, A. (1965). A rule of anisotropic hardening. *Acta Mechanica*, **1**, 81–92.
- Barlat, F., Lege, D. J., and Brem, J. C. (1991). A six-component yield function for anisotropic materials. *International Journal of Plasticity*, **7**, 693–712.
- Bartenev, G. M. and Zuev, J. S. (1968). *Strength and Failure of Visco-elastic Materials*. Pergamon Press.
- Bassani, J. L. (2001). Incompatibility and a simple gradient theory of plasticity. *Journal of the Mechanics and Physics of Solids*, **49**, 1983–1996.
- Bathe, K. J. (1996). *Finite Element Procedures*. Prentice-Hall, Englewood Cliffs.
- Bathe, K. J. and Cimento, A. (1980). Some practical procedures for the solution of nonlinear finite element equations. *Computer Methods in Applied Mechanics and Engineering*, **22**, 59–85.
- Batra, R. C. and Wright, T. W. (1988). A comparison of solutions for adiabatic shear banding by forward-difference and crank-nicolson methods. *Communications in Applied Numerical Methods*, **4**, 741–748.
- Bauschinger, J. (1886). *Über die Veränderung der Elastizitätsgrenze und der Festigkeit des Eisens und Stahls durch Strecken und Quetschen, durch Erwärmen und Abkühlen und durch oftmal wiederholte Beanspruchung*. Mitteilungen 15 aus dem mechanisch - technischen Laboratorium der K. polytechnis-

- chen Schule, München.
- Bažant, Z. P. (1976). Instability, ductility and size effect in strain-softening concrete. *Journal of the Engineering Mechanics Division, ASCE*, **102**, 331–344.
- Bažant, Z. P. (1979). *Inelasticity and failure of concrete*. Swedish Cement and Concrete Research Institute, Stockholm, Sweden.
- Bažant, Z. P. (1982). Mathematical models for creep and shrinkage of concrete. In Z. P. Bažant and F. H. Wittmann, editors, *Creep and Shrinkage in Concrete Structures*, pages 163–256. John Wiley & Sons.
- Bažant, Z. P. (1996). Mathematical modelling of creep and shrinkage of concrete at high temperature. In Z. P. Bažant and M. F. Kaplan, editors, *Concrete at High Temperatures. Material Properties and Mathematical Models*, pages 249–320. Longman Group Limited.
- Belytschko, T., Bazant, Z., Hyun, Y.-W., and Chang, T.-P. (1986). Strain-softening materials and finite-element solutions. *Computers & Structures*, **23**, 163–180.
- Belytschko, T., Liu, W. K., and Moran, B. (2000). *Nonlinear Finite Elements for Continua and Structures*. John Wiley & Sons.
- Bergan, P. G. (1979). Solution algorithms for nonlinear structural problems. In *International Conference on Engineering Applications of the Finite Element Method*, pages 13.1–13.39. Norway, A. S. Computas.
- Bergan, P. G. (1980). Solution algorithms for nonlinear structural problems. *Computers & Structures*, **12**, 497–509.
- Bergan, P. G. and Clough, R. W. (1972). Convergence criteria for iterative processes. *AIAA Journal*, **10**, 1107–1108.
- Bernstein, B. (1960). Hypoelasticity and elasticity. *Archive for Rational Mechanics and Analysis*, **6**, 90–104.
- Besseling, I. F. (1953). *A theory of plastic flow for anisotropic hardening in plastic deformation of an initially isotropic material*. National Aerospace Laboratory, Amsterdam, Report S410.
- Betonghandbok (1982). *Material*. Edited by G. Möller, N. Petersons and P. Samuelsson. Svensk Byggtjänst, Sweden.
- Bever, M. B., Holt, D. L., and Titchener, A. L. (1973). *The Stored Energy of Cold Work*. Pergamon Press.
- Bićanić, N. and Johnson, W. W. (1979). Who was "-Raphson"? *International Journal for Numerical Methods in Engineering*, **14**, 148–152.
- Bicanic, N. P. (1989). Exact evaluation of contact stress state in computational elasto-plasticity. *Engineering Computations*, **6**, 67–73.
- Bigoni, D. (1995). On flutter instability in elastoplastic constitutive models.

- International Journal of Solids and Structures*, **32**, 3167–3189.
- Bigoni, D. and Hueckel, T. (1991). Uniqueness and localization - I. Associate and non-associative elastoplasticity - II: Coupled elastoplasticity. *International Journal of Solids and Structures*, **28**, 197–214.
- Bigoni, D. and Zaccaria, D. (1992). Loss of strong ellipticity in non-associative elastoplasticity. *Journal of the Mechanics and Physics of Solids*, **40**, 1313–1331.
- Bigoni, D. and Zaccaria, D. (1994). On the eigenvalues of the acoustic tensor in elastoplasticity. *European Journal of Mechanics. A/Solids*, **13**, 621–638.
- Bingham, E. C. (1922). *Fluidity and Plasticity*. McGraw-Hill Book Company.
- Biot, M. A. (1954). Theory of stress-strain relations in anisotropic viscoelasticity and relaxation phenomena. *Journal of Applied Physics*, **25**, 1385–1391.
- Bishop, J. F. W. and Hill, R. (1951). A theory of the plastic distortion of a polycrystalline aggregate under combined stress. *Philosophical Magazine*, **42**, 414–427.
- Bland, D. R. (1957). The two measures of workhardening. In *9th International Congress of Applied Mechanics*, volume 8, pages 45–50.
- Bodner, S. R. (1968). Constitutive equations for dynamic material behavior. In U. S. Lindholm, editor, *Mechanical Behavior of Materials under Dynamic Loads*, pages 176–190. Springer-Verlag.
- Bodner, S. R. (1987). Review of unified elastic-viscoplastic theory. In A. K. Miller, editor, *Unified Constitutive Equations for Creep and Plasticity*, pages 273–301. Elsevier Applied Science Publishers.
- Bodner, S. R. and Partom, Y. (1972). A large deformation elastic-viscoplastic analysis of a thick-walled spherical shell. *Journal of Applied Mechanics*, **39**, 751–757.
- Bodner, S. R. and Partom, Y. (1975). Constitutive equations for elastic-viscoplastic strain-hardening materials. *Journal of Applied Mechanics*, **42**, 385–389.
- Bodner, S. R., Partom, I., and Partom, Y. (1979). Uniaxial cyclic loading of elastic-viscoplastic materials. *Journal of Applied Mechanics*, **46**, 805–810.
- Boehler, J.-P. (1975). Sur les formes invariants dans le sous-groupe orthotrope de révolution des transformations orthogonales de la relation entre deux tenseurs symétriques du second ordre. *Zeitschrift für angewandte Mathematik und Mechanik*, **55**, 609–611.
- Boehler, J.-P. (1977). Irreducible representations for isotropic scalar functions. *Zeitschrift für angewandte Mathematik und Mechanik*, **57**, 323–327.
- Boehler, J.-P. (1978). Lois de comportement anisotrope des milieux continus. *Journal de Mécanique*, **17**, 153–190.

- Boehler, J.-P. (1979). A simple derivation of representations for non-polynomial constitutive equations for some cases of anisotropy. *Zeitschrift für angewandte Mathematik und Mechanik*, **59**, 157–167.
- Boehler, J.-P. (1987a). Introduction to the invariant formulation of anisotropic constitutive equations. In J. P. Boehler, editor, *Applications of Tensor Functions in Solid mechanics*, pages 13–30. Springer-Verlag.
- Boehler, J.-P. (1987b). Representations for isotropic and anisotropic non-polynomial tensor functions. In J. P. Boehler, editor, *Applications of Tensor Functions in Solid mechanics*, pages 31–53. Springer-Verlag.
- Boehler, J.-P. (1987c). Anisotropic linear elasticity. In J. P. Boehler, editor, *Applications of Tensor Functions in Solid mechanics*, pages 55–65. Springer-Verlag.
- Boehler, J.-P. and Sawczuk, A. (1976). Application of representation theorems to describe yielding of transversely isotropic solids. *Mechanics Research Communications*, **3**, 277–283.
- Boley, A. B. and Weiner, J. H. (1960). *Theory of Thermal Stresses*. John Wiley & Sons.
- Boltzmann, L. (1874). *Zur Theorie der elastischen Nachwirkung*. Sitzungsberichte Akademie Wissenschaften der Wien, Wissenschaftlichen Abhandlungen, Vol.70, pages 275–306.
- Boresi, A. P. and Sidebottom, O. M. (1972). Creep of metals under multiaxial states of stress. *Nuclear Engineering and Design*, **18**, 415–456.
- Bridgman, P. W. (1952). *Studies in Large Plastic Flow and Fracture with Special Emphasis on the Effects of Hydrostatic Pressure*. McGraw-Hill.
- Browne, R. D. and Blundell, R. (1972). The behaviour of concrete in prestressed concrete pressure vessels. *Nuclear Engineering and Design*, **20**, 429–475.
- Broyden, C. (1967). Quasi-Newton methods and their application to function minimization. *Mathematical Computation*, **21**, 368–381.
- Broyden, C. (1970). The convergence of a class of double rank minimization algorithms. Parts I and II. *Journal of Institute of Mathematical Application*, **6**, 76–90 and 222–236.
- Burgers, J. M. (1935). *First and Second Report on Viscosity and Plasticity*. Academy of Sciences at Amsterdam, the Netherlands.
- Byfors, J. (1980). *Plain Concrete at Early Stages*. Swedish Cement and Concrete Research Institute, Fo.80:3, Stockholm, Sweden.
- Çengel, Y. A. and Boles, M. A. (1994). *Thermodynamics. An Engineering Approach*. McGraw-Hill.
- Celentano, D., Oñate, E., and Oller, S. (1994). A temperature-based formulation for finite element analysis of generalized phase-change problems. *Inter-*

- national Journal for Numerical Methods in Engineering*, **37**, 3441–3465.
- Celentano, D., Oller, S., and Oñate, E. (1996). A coupled thermomechanical model for the solidification of cast metals. *International Journal of Solids and Structures*, **33**, 647–673.
- Chaboche, J. L., Dang-Van, K., and Cordier, G. (1979). *Modelization of the Strain memory Effect on the Cyclic Hardening of 316 Stainless Steel*. SMIRT-5, Division L. Berlin.
- Chaboche, J. L. (1989). Time-independent constitutive theories for cyclic plasticity. *International Journal of Plasticity*, **2**, 247–302.
- Chaboche, J. L. (1989). Constitutive equations for cyclic plasticity and cyclic viscoplasticity. *International Journal of Plasticity*, **5**, 149–188.
- Chaboche, J. L. (1993a). Cyclic viscoplastic constitutive equations, part I: A thermodynamically consistent formulation. *Journal of Applied Mechanics*, **60**, 813–821.
- Chaboche, J. L. (1993b). Cyclic viscoplastic constitutive equations, part II: Stored energy - Comparison between models and experiments. *Journal of Applied Mechanics*, **60**, 822–828.
- Chaboche, J. L. and Nouailhas, D. (1989). A unified constitutive model for cyclic viscoplasticity and its applications to various stainless steels. *Journal of Engineering Materials and Technology*, **111**, 424–430.
- Chan, K. S., Bodner, S. R., and Lindholm, U. S. (1988). Phenomenological modeling of hardening and thermal recovery in metals. *Journal of Engineering Materials and Technology*, **110**, 1–8.
- Chen, W. F. (1975). *Limit Analysis and Soil Plasticity*. Elsevier.
- Chen, W. F. (1982). *Plasticity in Reinforced Concrete*. McGraw-Hill Book Company.
- Chen, W. F. (1994). *Constitutive Equations for Engineering Materials. Vol. 2: Plasticity and Modeling*. Elsevier Science B.V.
- Chen, W. F. and Han, D. J. (1988). *Plasticity for Structural Engineers*. Springer-Verlag.
- Chen, W. F. and Saleeb, A. F. (1982). *Constitutive Equations for Engineering Materials, Vol. 1. Elasticity and Modeling*. John Wiley & Sons.
- Chinn, J. and Zimmerman, R. M. (1965). Behavior of plain concrete under various high triaxial compression loading conditions. Technical Report No. WL TR 64-163 (AD 468460), Air Force Weapons Laboratory, New Mexico.
- Clavout, C. and Ziegler, H. (1959). Über einige verfestungsregeln. *Ingenieur-Archiv*, **28**, 13–26.
- Coleman, B. D. (1964). Thermodynamics of materials with memory. *Archive for Rational Mechanics and Analysis*, **17**, 1–46.

- Coleman, B. D. and Gurtin, M. E. (1967). Thermodynamics with internal state variables. *The Journal of Chemical Physics*, **47**, 597–613.
- Coleman, B. D. and Noll, W. (1960). An approximation theorem for functionals with applications to continuum mechanics. *Archive for Rational Mechanics and Analysis*, **6**, 355–370.
- Coleman, B. D. and Noll, W. (1961). Foundations of linear viscoelasticity. *Reviews of Modern Physics*, **33**, 239–249.
- Coon, M. D. and Evans, R. J. (1971). Recoverable deformation of cohesionless soils. *Journal of the Soil Mechanics and Foundations Division, ASCE*, **97**, 375–391.
- Coon, M. D. and Evans, R. J. (1972). Incremental constitutive laws and their associated failure criteria with application to plain concrete. *International Journal of Solids and Structures*, **8**, 1169–1183.
- Cosserat, E. and Cosserat, F. (1909). *Théories des corps déformables*. A. Herman et fils, Paris.
- Coulomb, C. A. (1776). Essai sur une application des règles de maximis & minimis à quelques problèmes de statique, relatifs à l'architecture. *Mémoires de Mathématique & de Physique présentés à l'Académie Royale des Sciences*, **7**, 343–382.
- Cowin, S. C. and Mehrabadi, M. M. (1995). Anisotropic symmetries of linear elasticity. *Applied Mechanics Reviews*, **48**, 247–285.
- Cowper, G. R. and Symonds, P. S. (1962). Unpublished work communicated to Bodner, S.R and Symonds, P.S. Experimental and theoretical investigation of the plastic deformation of cantilever beams subjected to impulsive loading. *Journal of Applied Mechanics*, **29**, 719–728.
- CRC (1995). *Handbook of Chemistry and Physics*. 76th edition. CRC Press.
- Crisfield, M. A. (1991). *Non-linear Finite Element Analysis of Solids and Structures, Essentials*, volume 1. John Wiley & Sons.
- Crisfield, M. A. (1997). *Non-linear Finite Element Analysis of Solids and Structures, Advanced Topics*, volume 2. John Wiley & Sons.
- Dafalias, Y. F. and Popov, E. P. (1975). A model of nonlinearly hardening materials for complex loading. *Acta Mechanica*, **21**, 173–192.
- Dafalias, Y. F. and Popov, E. P. (1976). Plastic internal variables formalism of cyclic plasticity. *Journal of Applied Mechanics*, **43**, 645–651.
- Dafalias, Y. F. and Rashid, M. M. (1989). The effect of plastic spin on anisotropic material behavior. *International Journal of Plasticity*, **5**, 227–246.
- Dahlblom, O. (1987). *Constitutive modelling and finite element analysis of concrete structures with regard to environmental influence*. Report TVSM-

- 1004, Div. of Structural Mechanics, Lund University, Sweden.
- Dahlquist, G. and Björk, Å. (1974). *Numerical Methods*. Prentice Hall. Englewood Cliffs.
- de Borst, R. (1991). Simulation of strain localization: A reappraisal of the Cosserat continuum. *Engineering Computations*, **8**, 317–332.
- de Borst, R. and Feenstra, P. H. (1990). Studies in anisotropic plasticity with reference to the Hill criterion. *International Journal for Numerical Methods in Engineering*, **29**, 315–336.
- de Groot, S. and Mazur, P. (1962). *Non-equilibrium Thermodynamics*. North-Holland.
- Dennis, J. E. and Moré, J. (1977). Quasi-Newton methods, motivation and theory. *SIAM Review*, **19**, 46–89.
- Desai, C. S. and Siriwardane, H. J. (1984). *Constitutive Laws for Engineering Materials, with emphasis on geologic materials*. Prentice-Hall.
- Dilger, W. H., Koch, R., and Kowalczyk, R. (1984). Ductility of plain and confined concrete under different strain rates. *Journal of the American Concrete Institute*, **81**, 73–81.
- Dillon, O. W. (1963). Coupled thermoplasticity. *Journal of the Mechanics and Physics of Solids*, **11**, 21–33.
- DiMaggio, F. L. and Sandler, I. S. (1971). Material model for granular soils. *Journal of the Engineering Mechanics Division, ASCE*, **97**, 935–950.
- Dischinger, F. (1937). Untersuchungen über die knicksicherheit, die elastische verformung und das kriechen des betons bei logenbrüchen. *Der Bauingenieur*, **18**, 487–520.
- Dormand, J. R. and Prince, J. R. (1980). A family of embedded Runge-Kutta formulae. *Journal of Computational and Applied Mathematics*, **6**, 19–26.
- Dougill, J. W. (1976). On stable progressively fracturing solids. *Zeitschrift für angewandte Mathematik und Physik*, **27**, 423–437.
- Drucker, D. C. (1951). A more fundamental approach to plastic stress-strain relations. In *Proceedings of the 1th US National Congress of Applied Mechanics*, ASME, pages 487–491. New York.
- Drucker, D. C. (1964). On the postulate of stability of material in the mechanics of continua. *Journal de Mécanique*, **3**, 235–249.
- Drucker, D. C. and Palgen, L. (1981). On stress-strain relations suitable for cyclic and other loadings. *Journal of Applied Mechanics*, **48**, 479–485.
- Drucker, D. C. and Prager, W. (1952). Solid mechanics and plastic analysis or limit design. *Quarterly of Applied Mathematics*, **10**, 157–165.
- Drucker, D. C., Prager, W., and Greenberg, H. J. (1952). Extended limit design theorems for continuous media. *Quarterly of Applied Mathematics*, **9**, 381–

389.

- Duvaut, G. and Lions, J. L. (1972). *Les inéquations en mécanique et en physique*. Dunod, Paris.
- Edelen, D. G. B. (1972). A nonlinear onsager theory of irreversibility. *International Journal of Engineering Science*, **10**, 481–490.
- Eibl, J., Waubke, N. V., Klingsch, W., Schneider, U., and Rieche, G. (1974). *Studie zur Erfassung spezieller Betoneigenschaften im Reaktordruckbehälterbau*. Deutscher Ausschuss für Stahlbeton, Heft 237.
- Eibl, J., Aschl, H., Bobrowski, J., Cedolin, L., Garas, F. K., Gerstle, K. H., Hilsdorf, H., Kotsovos, M. D., Ottosen, N. S., Wastiels, J., and Willam, K. J. (1983). *Concrete under multiaxial states of stress. Constitutive equations for practical design*. Comité Euro-International du Béton, CEB-Bulletin No. 156.
- Ekh, M. and Runesson, K. (2000). Bifurcation results for plasticity coupled to damage with MCR-effect. *International Journal of Solids and Structures*, **37**, 1975–1996.
- Engelman, M. S., Strang, G., and Bathe, K.-J. (1981). The application of quasi-Newton methods in fluid mechanics. *International Journal for Numerical Methods in Engineering*, **17**, 707–718.
- Ericksen, J. L. (1960). Transversely isotropic fluids. *Kolloid Zeitschrift*, **173**, 117–122.
- Eringen, A. C. (1975a). Thermodynamics of continua. In A. C. Eringen, editor, *Continuum Physics*, volume 2, pages 89–127. Academic Press.
- Eringen, A. C. (1975b). Constitutive equations for simple materials. General theory. In A. C. Eringen, editor, *Continuum Physics*, volume 2, pages 131–172. Academic Press.
- Eringen, A. C. (1999). *Microcontinuum Field Theories. I: Foundations and Solids*. Springer-Verlag.
- Eshbach, O. W. and Souders, M. (1975). *Handbook of Engineering Fundamentals*, 3rd edition. John Wiley & Sons.
- Evans, R. J. and Pister, K. S. (1966). Constitutive equations for a class of nonlinear elastic solids. *International Journal of Solids and Structures*, **2**, 427–445.
- Evans, R. W. and Wilshire, B. (1993). *Introduction to Creep*. The Institute of Materials, London.
- Eve, R. A., Reddy, B. D., and Rockafeller, R. T. (1990). An internal variable theory of elastoplasticity based on the maximum plastic work inequality. *Quarterly of Applied Mathematics*, **48**, 59–83.
- Eves, H. (1980). *Elementary Matrix Theory*. Dover Publications.
- Faruque, M. O. and Chang, C. J. (1990). A constitutive model for pressure

- sensitive materials with particular reference to plain concrete. *International Journal of Plasticity*, **6**, 29–43.
- Findley, W. N., Lai, J. S., and Onaran, K. (1976). *Creep and Relaxation of Nonlinear Viscoelastic Materials*. North-Holland Publishing Company.
- Finnie, I. and Heller, W. R. (1959). *Creep of Engineering Materials*. McGraw-Hill Book Company.
- Fleck, N. and Hutchinson, J. W. (2001). A reformulation of strain gradient plasticity. *Journal of the Mechanics and Physics of Solids*, **49**, 2245–2271.
- Fletcher, R. (1970). A new approach to variable metric algorithms. *Computer Journal*, **13**, 317–322.
- Fletcher, R. (1980). *Practical Methods of Optimization*. Vol 1. John Wiley & Sons.
- Flügge, W. (1967). *Viscoelasticity*. Blaisdell, Waltham.
- Frost, H. J. and Ashby, M. F. (1982). *Deformation Mechanism Maps*. Pergamon Press.
- Fung, Y. C. (1965). *Foundations of Solid Mechanics*. Prentice-Hall.
- Gear, G. W. (1971). *Numerical Initial value Problems in Ordinary Differential equations*. Prentice Hall, Englewood Cliffs.
- Germain, P., Nguyen, Q. S., and Suquet, P. (1983). Continuum thermodynamics. *Journal of Applied Mechanics*, **50**, 1010–1020.
- Gerstle, K. H., Aschl, H., Bellotti, R., Bertacci, P., Kotsovos, M. D., Ko, H. Y., Linse, D., Newman, J. B., Rossi, P., Schickert, G., Taylor, M. A., Traina, L. A., Winkler, H., and Zimmerman, R. M. (1980). Behavior of concrete under multiaxial stress states. *Journal of the Engineering Mechanics Division, ASCE*, **106**, 1383–1403.
- Gittus, J. (1975). *Creep, Viscoelasticity and Creep Fracture in Solids*. Applied Science Publishers.
- Gnoneim, H. (1990). Analysis and application of a complex thermoviscoplasticity theory. *Journal of Applied Mechanics*, **57**, 828–835.
- Goel, R. P. and Malvern, L. E. (1970). Biaxial plastic simple waves with combined kinematic and isotropic hardening. *Journal of Applied Mechanics*, **37**, 1100–1106.
- Goldfarb, D. (1970). A family of variable metric methods derived by variational means. *Mathematical Computation*, **24**, 23–26.
- Green, A. E. and Adkins, J. E. (1960). *Large Elastic Deformations*. Oxford, Clarendon Press.
- Green, S. J. and Swanson, S. R. (1973). Static constitutive relations for concrete. Technical Report No. AFWL-TR-72-244 (AD 761820), Air Force Weapons Laboratory, New Mexico.

- Gurtin, M. E. (1981). *An Introduction to Continuum Mechanics*. Academic Press.
- Gurtin, M. E. (2002). A gradient theory of single-crystal viscoplasticity that accounts for geometrically necessary dislocations. *Journal of the Mechanics and Physics of Solids*, **50**, 5–32.
- Gurtin, M. E. and Williams, W. O. (1966). On the Clausius-Duhem inequality. *Zeitschrift für angewandte Mathematik und Physik*, **17**, 626–633.
- Gvozdev, A. A. (1938). "Opređenje veličiny razrushayushchei nagruzki dlya staticheskii neopredelimykh sistem, preterperayuschikh plasticheskie deformatsii", moscow/leningrad, akademiya nauk sssr, 19-38. English translation (1960), "The determination of the value of the collapse load for statically indeterminate systems undergoing plastic deformation". *International Journal of Mechanical Science*, **1**, 322–333.
- Hadamard, J. (1903). *Leçons sur la Propagation des Ondes et les Equations de l'Hydrodynamique*. Herman et fils, Paris. Also published by Chelsea Publishing Company, New York (1949).
- Haigh, B. F. (1920). The strain-energy function and the elastic limit. *Engineering, London*, **109**, 158–160.
- Håkansson, P., Wallin, M., and Ristinmaa, M. (2005). Comparison of isotropic hardening and kinematic hardening in thermoplasticity. *International Journal of Plasticity*, **21**, 1435–1460.
- Halphen, B. and Nguyen, Q. S. (1975). Sur les matériaux standards généralisés. *Journal de Mécanique*, **14**, 39–63.
- Handelman, G. H., Lin, C. C., and Prager, W. (1947). On the mechanical behaviour of metals in the strain-hardening range. *Quarterly of Applied Mathematics*, **4**, 397–407.
- Hannant, D. J. (1969). Creep and creep recovery of concrete subjected to multiaxial compressive stresses. **66**, 391–394.
- Hart, E. W. (1970). A phenomenological theory for plastic deformation of polycrystalline metals. *Acta Metallurgica Materials*, **18**, 599–610.
- Haupt, P. (2000). *Continuum Mechanics and Theory of Materials*. Springer-Verlag.
- Hencky, H. Z. (1924). Zur theorie plastischer deformationen und der hierdurch im material hervorgerufenen nachspannungen. *Zeitschrift für angewandte Mathematik und Mechanik*, **4**, 323–334.
- Hencky, H. Z. (1925). Über langsame stationäre strömungen in plastischen massen mit rücksicht auf die vorgänge beim walzen, pressen und ziehen von metallen. *Zeitschrift für angewandte Mathematik und Mechanik*, **5**, 115–124.
- Hildebrand, F. B. (1965). *Methods of Applied Mathematics*. Prentice-Hall. Second edition.

- Hill, R. (1948a). A theory of the yielding and plastic flow of anisotropic materials. *Proceedings of the Royal Society of London*, **A193**, 281–297.
- Hill, R. (1948b). A variational principle of maximum plastic work in classical plasticity. *Quarterly Journal of Mechanics and Applied Mathematics*, **1**, 18–28.
- Hill, R. (1950). *The Mathematical Theory of Plasticity*. Oxford University Press.
- Hill, R. (1958). A general theory of uniqueness and stability in elastic-plastic solids. *Journal of the Mechanics and Physics of Solids*, **6**, 236–249.
- Hill, R. (1961). Discontinuity relations in mechanics of solids. In I. N. Sneddon and R. Hill, editors, *Progress in Solid Mechanics*, volume 2, pages 245–276. North-Holland, Amsterdam.
- Hill, R. (1962). Acceleration waves in solids. *Journal of the Mechanics and Physics of Solids*, **10**, 1–16.
- Hill, R. (1966). Generalized constitutive relations for incremental deformation of metal crystals by multislip. *Journal of the Mechanics and Physics of Solids*, **14**, 95–102.
- Hill, R. (1978). Aspects of invariance in solid mechanics. In C.-S. Yih, editor, *Advances in Applied Mechanics*. Academic Press.
- Hill, R. (1993). A user-friendly theory of orthotropic plasticity in sheet metals. *International Journal of Mechanical Science*, **35**, 19–25.
- Hillerborg, A. (1974). *Dimensionering av armerade betongplattor enligt strimlemetoden, (The strip method)*. Almqvist & Wiksell, Stockholm.
- Hillerborg, A., Mod  er, M., and Petersson, P.-E. (1976). Analysis of crack formation and crack growth in concrete by means of fracture mechanics and finite elements. *Cement and Concrete Research*, **6**, 773–782.
- Hodge, P. G. J. (1957). Piecewise linear hardening. In *9th International Congress on Applied Mechanics*, volume 8, pages 65–72. University of Brussels, Belgium.
- Hoffman, O. (1967). The brittle strength of orthotropic materials. *Journal of Composite Materials*, **1**, 200–206.
- Hohenemser, K. and Prager, W. (1932).   ber die ans  tze der mechanik isotroper kontinua. *Zeitschrift f  r angewandte Mathematik und Mechanik*, **12**, 216–226.
- Horgan, C. O. (1973). On the strain-energy density in linear elasticity. *Journal of Engineering Mathematics*, **7**, 231–234.
- Hosford, W. F. and Backofen, W. A. (1964). Strength and plasticity of textured metals. In W. A. Backofen, J. Burke, L. Coffin, N. Reed, and V. Weiss, editors, *Fundamentals of Deformation Processing*, pages 259–298. Syracuse

- University Press, Syracuse.
- Hsieh, S. S., Ting, E. C., and Chen, W. F. (1982). A plasticity-fracture model for concrete. *International Journal of Solids and Structures*, **18**, 181–197.
- Hu, L. W. (1956). Studies on plastic flow of anisotropic metals. *Journal of Applied Mechanics*, **12**, 444–450.
- Huber, M. T. (1904). Właściwa praca odkształcenia jako miara wyteżenia materyalu. *Czasopismo techniczne, Lemberg*, **22**, 38–40 and 80–81.
- Hughes, T. J. R. (1977). Unconditionally stable algorithms for nonlinear heat conduction. *Computer Methods in Applied Mechanics and Engineering*, **10**, 135–139.
- Hughes, T. J. R. (1983). Analysis of transient algorithms with particular reference to stability behaviour. In T. Belytscho and T. J. R. Hughes, editors, *Computational Methods for Transient Analysis*, volume 1, pages 67–155. North-Holland, Amsterdam.
- Hughes, T. J. R. (1987). *The Finite Element Method. Linear Static and Dynamic Finite Element Analysis*. Prentice-Hall, Englewood Cliffs.
- Hult, J. (1966). *Creep in Engineering Structures*. Blaisdell Publications Company.
- Hunter, S. C. (1983). *Mechanics of Continuous Media*. Ellis Horwood Limited. Second edition.
- Hutter, K. (1977). Review article. The foundations of thermodynamics, its basic postulates and implications. A review of modern thermodynamics. *Acta Mechanica*, **27**, 1–54.
- Ivey, H. J. (1961). Plastic stress-strain relations and yield surfaces for aluminium alloys. *Journal of Mechanical Engineering Science*, **3**, 15–31.
- Iwan, W. D. (1967). On a class of models for the yielding behaviour of continuous and composite systems. *Journal of Applied Mechanics*, **34**, 612–617.
- Jaunzemis, W. (1967). *Continuum Mechanics*. The MacMillan Company.
- Jeager, J. C. and Cook, N. G. W. (1976). *Fundamentals of Rock Mechanics*. Chapman and Hall. Second edition.
- Jiang, Y. and Kurath, P. (1996). Characteristics of the Armstrong-Frederick type plasticity models. *International Journal of Plasticity*, **12**, 387–415.
- Johansen, K. W. (1943). *Brudlinieteorier, (Yield line theories)*. Gjellerup, Copenhagen.
- Johansen, K. W. (1962). *Yield Line Theories*. Cement and Concrete Association, London.
- Johnson, W. and Mellor, P. B. (1983). *Engineering Plasticity*. Ellis Horwood.
- Kamlah, M. and Haupt, P. (1998). On the macroscopic description of stored energy and self heating during plastic deformation. *International Journal of*

- Plasticity*, **13**, 893–911.
- Karafilis, A. P. and Boyce, M. C. (1993). A general anisotropic yield criterion using bounds and a transformation weighing tensor. *Journal of the Mechanics and Physics of Solids*, **41**, 1859–1886.
- Kelvin, S. (1875). *Elasticity*. Encyclopedia Britannica, 9th edition.
- Kestin, J. (1979). *A Course in Thermodynamics*. revised printing, Vol.1 and 2, McGraw-Hill Book Comp.
- Khan, A. S. and Huang, S. (1995). *Continuum Theory of Plasticity*. John Wiley & Sons.
- Kirchhoff, G. (1859). Über das gleichwicht und die bewegung eines unendlich dünnen elastischen stabes. *Journal für die reine und angewandte Mathematik (Crelle's Journal)*, **56**, 285–313.
- Knops, R. J. and Payne, L. E. (1971). *Uniqueness Theorems in Linear Elasticity*. Springer-Verlag.
- Ko, H.-Y. and Scott, R. F. (1968). Deformation of sand at failure. *Journal of the Soil Mechanics and Foundations Division, ASCE*, **94**, 883–898.
- Koiter, W. T. (1953). Stress-strain relations, uniqueness and variational theorems for elasto-plastic materials with a singular yield surface. *Quarterly of Applied Mathematics*, **11**, 350–354.
- Koiter, W. T. (1960). General theorems for elastic-plastic solids. In I. N. Sneddon and R. Hill, editors, *Progress in Solid Mechanics*, pages 165–221. North-Holland Publishing Company.
- Koiter, W. T. (1964). Couple-stresses in the theory of elasticity, I and II. *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen*, **67**, 17–44.
- Kotsovos, M. D. (1980). A mathematical model of the deformational behaviour of concrete under generalised stress based on the fundamental material properties. *Materials and Structures*, **13**, 289–298.
- Krausz, A. S. and Krausz, K. (1996). *Unified Constitutive Laws of Plastic Deformation*. Academic Press.
- Krempel, E. (1971). Cyclic plasticity: Some properties of the hysteresis curve of structural metals at room temperature. *Journal of Basic Engineering*, **93**, 317–323.
- Krempel, E. (1996). A small-strain viscoplasticity theory based on overstress. In A. S. Krausz and K. Krausz, editors, *Unified Constitutive Laws of Plastic Deformation*, pages 281–318. Academic Press.
- Krempel, E., McMahon, J. J., and Yao, D. (1986). Viscoplasticity based on overstress with a differential growth law for the equilibrium stress. *Mechanics of Materials*, **5**, 35–48.

- Krenk, S. (1995). An orthogonal residual procedure for nonlinear finite-element equations. *International Journal for Numerical Methods in Engineering*, **38**, 823–839.
- Krenk, S. (1996). Family of invariant stress surfaces. *Journal of Engineering Mechanics, ASCE*, **122**, 201–208.
- Krenk, S. (2000). Characteristic state plasticity for granular materials, Part I: basic theory. *International Journal of Solids and Structures*, **37**, 6343–6360.
- Krenk, S. and Hededal, O. (1995). A dual orthogonality procedure for nonlinear finite-element equations. *Computer Methods in Applied Mechanics and Engineering*, **123**, 95–107.
- Kreyszig, E. (1962). *Advanced Engineering Mathematics*. John Wiley & Sons.
- Krieg, R. D. (1975). A practical two surface plasticity theory. *Journal of Applied Mechanics*, **42**, 641–646.
- Krieg, R. D. and Key, S. W. (1976). Implementation of a time independent plasticity theory into structural computer programs. In J. A. Stricklin and K. J. Saczalski, editors, *Constitutive equations in viscoplasticity: Computational and engineering aspects*, pages 125–136. American Society of Mechanical Engineers, New York.
- Krieg, R. D. and Krieg, D. B. (1977). Accuracies of numerical solution methods for the elastic-perfectly plastic model. *Journal of Pressure Vessel Technology*, **99**, 510–515.
- Kuhn, H. W. and Tucker, A. W. (1951). Nonlinear programming. In J. Neyman, editor, *Proceedings of the Second Berkeley Symposium on Mathematical Statistics and Probability*, pages 481–492. University of California Press, Berkeley and Los Angeles.
- Kupfer, H. (1973). Das verhalten des Betons unter mehrachsiger Kurzzeitbelastung unter besonderer Berücksichtigung der zweiachsigen Beanspruchung. *Deutscher Ausschuss für Stahlbeton, Heft 229*.
- Kupfer, H., Hilsdorf, H. K., and Rüsch, H. (1969). Behavior of concrete under biaxial stresses. *Journal of the American Concrete Institute*, **66**, 656–666.
- Lade, P. V. (1977). Elasto-plastic stress-strain theory for cohesionless soil with curved yield surfaces. *International Journal of Solids and Structures*, **13**, 1019–1035.
- Lade, P. V. and Duncan, J. M. (1973). Cubical triaxial tests on cohesionless soil. *Journal of the Soil Mechanics and Foundations Division, ASCE*, **99**, 793–812.
- Lade, P. V. and Kim, K. K. (1995). Simple hardening constitutive model for soil, rock and concrete. *International Journal of Solids and Structures*, **32**, 1963–1978.
- Larsson, R., Runesson, K., and Ottosen, N. S. (1993). Discontinuous displacement approximation for capturing plastic localization. *International Journal*

- for *Numerical Methods in Engineering*, **36**, 2087–2105.
- Larsson, R., Steinmann, P., and Runesson, K. (1998). Finite element embedded localization band for finite strain plasticity based on regularized strong discontinuity. *Mechanics of Cohesive-Frictional Materials*, **4**, 171–194.
- Lavenda, B. H. (1978). *Thermodynamics of Irreversible Processes*. Dover Publications.
- Lehmann, T. (1984). General frame for definition of constitutive laws for large non-isothermic-elastic-plastic and elastic-viscoplastic deformations. In T. Lehmann, editor, *The Constitutive Law in Thermoplasticity*, pages 379–463. CISM Courses and Lectures No.281, Springer-Verlag.
- Leipholtz, H. H. E. (1972). Dynamic stability of elastic systems. In H. H. E. Leipholtz, editor, *Stability*, pages 243–279. Study No.6. University of Waterloo, Ontario.
- Lekhnitskii, S. G. (1981). *Theory of Elasticity of a Anisotropic Body*. Mir Publishers, Moscow.
- Lemaitre, J. and Chaboche, J.-L. (1990). *Mechanics of Solid Materials*. Cambridge University Press.
- Lemonds, J. and Needleman, A. (1986a). Finite element analyses of shear localization in rate and temperature dependent solids. *Mechanics of Materials*, **5**, 339–361.
- Lemonds, J. and Needleman, A. (1986b). An analysis of shear band development incorporating heat conduction. *Mechanics of Materials*, **5**, 363–373.
- Lévy, M. (1870). Mémoire sur les équations générales des mouvements intérieurs des corps solides ductiles, au delà des limites où l'élasticité pourrait les ramener à leur premier état. *Comptes Rendus des Seances de l'Académie des Sciences*, **70**, 1323–1325.
- Lianis, G. and Ford, H. (1957). An experimental investigation of the yield criterion and the stress-strain law. *Journal of the Mechanics and Physics of Solids*, **5**, 215–222.
- Lif, J. (2003). *Analysis of the Time and Humidity-Dependent Mechanical Behaviour of Paper Webs at Offset Printing Press Condition*. Doctoral Thesis No. 55, Solid Mechanics, Royal Institute of Technology, Stockholm, Sweden.
- Lif, J., Östlund, S., and Fellers, C. (1999). Applicability of anisotropic viscoelasticity of paper at small deformations. *Mechanics of Time-Dependent Materials*, **2**, 245–267.
- Lode, W. (1926). Versuche über den einfluss der mittleren hauptspannung auf das fließen der metalle eisen, kupfer und nickel. *Zeitschrift für Physik*, **36**, 913–939.
- Loret, B. (1992). Does deviation from deviatoric associativity lead to the onset of flutter instability? *Journal of the Mechanics and Physics of Solids*, **40**,

- 1363–1375.
- Love, A. E. H. (1944). *A Treatise on the Mathematical Theory of Elasticity*. Dover Publications. Fourth edition.
- Lubahn, J. D. (1961). Deformation phenomena. In J. E. Dorn, editor, *Mechanical Behaviour of Materials at Elevated Temperatures*, pages 319–392. McGraw-Hill.
- Lubahn, J. D. and Felgar, R. P. (1961). *Plasticity and Creep of Metals*. John Wiley & Sons.
- Lubarda, V. A. (2002). *Elastoplasticity Theory*. CRC Press LLC.
- Lubarda, V. A., Krajcinovic, D., and Mastilovic, S. (1994). Damage model for brittle elastic solids with unequal tensile and compressive strengths. *Engineering Fracture Mechanics*, **49**, 681–697.
- Lubliner, J. (1972). On the thermodynamic foundations of non-linear solid mechanics. *International Journal of Non-Linear Mechanics*, **7**, 237–254.
- Lubliner, J. (1982). Normality rules in large-deformation plasticity. *Mechanics of Materials*, **5**, 29–34.
- Lubliner, J. (1990). *Plasticity Theory*. MacMillan Publishing Company.
- Ludwik, P. (1909). *Elemente der technologischen Mechanik*. Springer-Verlag.
- Luenberger, D. G. (1984). *Linear and Nonlinear Programming*. Addison-Wesley Publishing Company. Second edition.
- Maier, G. and Hueckel, T. (1979). Nonassociated and coupled flow rules of elastoplasticity for rock-like materials. *International Journal of Rock Mechanics and Mining Sciences*, **16**, 77–92.
- Malvern, L. E. (1951). The propagation of longitudinal waves of plastic deformation in a bar of material exhibiting a strain-rate effect. *Journal of Applied Mechanics*, **18**, 203–208.
- Malvern, L. E. (1969). *Introduction to the Mechanics of a Continuous Media*. Prentice-Hall.
- Mandel, J. (1962). Ondes plastiques dans un milieu indéfini a trois dimensions. *Journal de Mécanique*, **1**, 3–30.
- Mandel, J. (1964). Propagation des surfaces de discontinuité dans un milieu élastoplastique. In H. Kolsky and W. Prager, editors, *Stress Waves in Anelastic Solids*, pages 331–340. IUTAM Symposium, Providence, April 1963, Springer-Verlag.
- Mandel, J. (1965). Generalization de la theorie de plasticite de W. L. Koiter. *International Journal of Solids and Structures*, **1**, 273–295.
- Manjoine, M. J. (1944). Influence of rate of strain and temperature on yield stresses of mild steel. *Journal of Applied Mechanics*, **11**, A211–A218.
- Marquis, D. (1979). *Sur un Modèle de plasticité rendant compte du comporte-*

- ment cyclique*. 3^{ème} Congrès Français de Mécanique, Nancy, France.
- Masing, G. (1927). *Wissenschaftliche Veröffentlichungen aus dem Siemens-Konzern*. Band III.
- Matthies, H. and Strang, G. (1979). The solution of nonlinear finite element equations. *International Journal for Numerical Methods in Engineering*, **14**, 1613–1623.
- Maugin, G. A. (1980). The method of virtual power in continuum mechanics - Application to coupled fields. *Acta Mechanica*, **35**, 1–70.
- Maugin, G. A. (1992). *The Thermodynamics of Plasticity and Fracture*. Cambridge University Press.
- Maxwell, J. (1868). On the dynamical theory of gases. *Philosophical Magazine*, **35**, 129–145 and 185–217.
- McVetty, P. G. (1934). Working stresses for high temperature service. *Mechanical Engineering*, **56**, 149–154.
- Meixner, J. (1953). Die thermodynamische theorie der relaxationserscheinungen und ihr zusammenhang mit der nachwirkungstheorie. *Kolloid-Zeitschrift*, **134**, 3–19.
- Meixner, J. (1970). On the foundation of thermodynamics of processes. In E. B. Stuart, B. Gal-Or, and A. J. Brainard, editors, *A Critical Review of Thermodynamics*, pages 37–47. Mono Book Company, Baltimore.
- Melan, E. (1938). Zur plastizität des räumlichen kontinuums. *Ingenieur-Archiv*, **IX**, 116–126.
- Mendelsohn, A. (1968). *Plasticity: Theory and Application*. The Macmillan Company.
- Metals Handbook (1978). 9th edition, American Society for Metals.
- Michno, M. J. and Findley, W. N. (1976). A historical perspective of yield surface investigations for metals. *International Journal of Non-Linear Mechanics*, **11**, 59–82.
- Miller, A. K. (1976). An inelastic constitutive model for monotonic, cyclic and creep deformation: Part 1. equations development and analytical procedures; part 2. application to 304 stainless steel. *Journal of Engineering Materials and Technology*, **98H**, 97–113.
- Miller, A. K. (1987a). The matmod equations. In A. K. Miller, editor, *Unified Constitutive Equations for Creep and Plasticity*, pages 139–219. Elsevier Applied Science Publishers.
- Miller, A. K. (1987b). *Unified Constitutive Equations for Creep and Plasticity*. Elsevier Applied Science Publishers.
- Mills, H. J. (1986). *Plastics: Microstructure, Properties and Applications*. Edward Arnold (Publishers).

- Mindlin, R. D. (1964). Micro-structure in linear elasticity. *Archive for Rational Mechanics and Analysis*, **16**, 51–78.
- Mindlin, R. D. and Tiersten, H. F. (1962). Effects of couple-stresses in linear elasticity. *Archive for Rational Mechanics and Analysis*, **11**, 415–448.
- Mohr, O. (1882). Über die Darstellung des Spannungszustandes und des Deformationszustandes eines Körperelementes und über die Anwendung derselben in der Festigkeitslehre. *Zivilingenieur*, **28**, 113–156.
- Mohr, O. (1900). Welche umstände bedingen elastizitätsgrenze und den bruch eines materials? *Zeitschrift des Vereines Deutscher Ingenieure*, **44**, 1524–1530, 1572–1577.
- Moreau, J. J. (1970). Sur les lois de frottement, de plasticité et de viscosité. *Comptes Rendus de l'Académie des Sciences. Séries A*, **271**, 608–611.
- Morrow, J. (1965). Cyclic plastic strain energy and fatigue of metals. In *Internal Friction, Damping and Cyclic Plasticity*, pages 45–87. ASTM, STP, no. 378.
- Mroz, Z. (1966). On forms on constitutive laws for elastic-plastic solids. *Archivum Mechaniki Stosowanej*, **18**, 3–35.
- Mróz, Z. (1967). On the description of anisotropic workhardening. *Journal of the Mechanics and Physics of Solids*, **15**, 163–175.
- Mårtensson, A. (1992). *Mechanical behaviour of wood exposed to humidity variations*. Report TVBK-1006, Depart. of Structural Engineering, Lund University, Sweden.
- Mukaddam, M. A. and Bresler, B. (1972). *Behavior of Concrete under Variable Temperature and Loading*. ACI Special Publ. No. 34, *Concrete for Nuclear Reactors*, Detroit.
- Murakami, S. and Sawczuk, A. (1981). A unified approach to constitutive equations of inelasticity based on tensor function representations. *Nuclear Engineering and Design*, **65**, 33–47.
- Nadai, A. (1938). The influence of time upon creep. the hyperbolic sine creep law. In *Stephen Timoshenko Anniversary Volume*, pages 155–170. The MacMillan Company.
- Nadai, A. (1950). *Theory of Flow and Fracture of Solids*, volume 1. McGraw-Hill Book Company. Second edition.
- Nadai, A. (1963). *Theory of Flow and Fracture of Solids*, volume 2. McGraw-Hill Book Company.
- Naghdi, P. M. (1960). Stress-strain relations in plasticity and thermoplasticity. In E. H. Lee and P. S. Symonds, editors, *Plasticity*, pages 121–169. Proceedings of the Second Symposium in Naval Structural Mechanics (Providence 1960), Pergamon Press.
- Naghdi, P. M. and Trapp, J. A. (1975). Significance of formulating plasticity

- theory with reference to loading surface in strain space. *International Journal of Engineering Science*, **13**, 785–797.
- Nagtegaal, J. C. (1982). On the implementation of inelastic constitutive-equations with special reference to large deformation problems. *Computer Methods in Applied Mechanics and Engineering*, **33**, 469–484.
- Nayak, G. C. and Zienkiewicz, O. C. (1972). Note on the "alpha"-constant stiffness method for the analysis of nonlinear problems. *International Journal for Numerical Methods in Engineering*, **4**, 579–582.
- Needleman, A. (1988). Material rate dependence and mesh sensitivity in localization problems. *Computer Methods in Applied Mechanics and Engineering*, **67**, 69–85.
- Needleman, A. and Tvergaard, V. (1992). Analysis of plastic flow localization in metals. *Applied Mechanics Reviews*, **45**, S3–S18.
- Neilsen, M. K. and Schreyer, H. L. (1993). Bifurcations in elastic-plastic materials. *International Journal of Solids and Structures*, **30**, 521–544.
- Nemat-Nasser, S. (1988). Micromechanics of failure at high strain rate: Theory, experiments and computations. *Computers & Structures*, **30**, 95–104.
- Neville, A. M. (1963). *Properties of Concrete*. Pitman Paperbacks.
- Newmark, N. M. (1959). A method of computation for structural dynamics. *Journal of Engineering Mechanics*, ASCE, **85**, 67–94.
- Nguyen, Q. S. (2000). *Stability and Nonlinear Solid Mechanics*. Wiley & Sons.
- Nielsen, M. P. (1984). *Limit Analysis and Concrete Plasticity*. Prentice-Hall.
- Norton, F. H. (1929). *Creep of Steel at High Temperatures*. McGraw-Hill Book Company.
- Oden, J. T. (1972). *Finite elements of nonlinear continua*. McGraw-Hill Book Company.
- Odqvist, F. K. G. (1933). Die verfestigung von flusseienähnlichen körpern. eine beitrage zur plastizitätstheorie. *Zeitschrift für angewandte Mathematik und Mechanik*, **13**, 360–363.
- Odqvist, F. K. G. (1934). Creep stresses in a rotating disc. In *Proceedings of IV International Congress of Applied Mechanics*, pages 228–229. Cambridge, England.
- Odqvist, F. K. G. (1966). *Mathematical Theory of Creep and Creep Relaxation*. Oxford University Press.
- Odqvist, F. K. G. and Hult, J. (1962). *Kriechfestigkeit metallischer Werkstoffe*. Springer-Verlag.
- Onat, E. T. and Fardshisheh, F. (1972). *Representation of Creep of Metals*. ORNL-4783, U.S. Atomic Energy Commission.
- Onsager, L. (1931a). Reciprocal relations in irreversible thermodynamics, I.

- Physical Review*, **37**, 405–426.
- Onsager, L. (1931b). Reciprocal relations in irreversible thermodynamics, II. *Physical Review*, **38**, 2265–2279.
- Ormarsson, S. (1999). *Numerical Analysis of Moisture-Related Distorsions in Sawn Timber*. Publication 99.7, Depart. of Structural Mechanics, Chalmers University of Technology, Göteborg, Sweden.
- Ortiz, M. and Popov, E. P. (1985). Accuracy and stability of integration algorithms for elastoplastic constitutive relations. *International Journal for Numerical Methods in Engineering*, **21**, 1561–1576.
- Ortiz, M., Leroy, Y., and Needleman, A. (1987). A finite element method for localized failure analysis. *Computer Methods in Applied Mechanics and Engineering*, **61**, 189–214.
- Ottosen, N. S. (1975). *Failure and Elasticity of Concrete*. Risö-M-1801, Danish Atomic Energy Commission, Research Establishment Risö, Engineering Department.
- Ottosen, N. S. (1977). A failure criterion for concrete. *Journal of the Engineering Mechanics Division, ASCE*, **103**, 527–535.
- Ottosen, N. S. (1979). Constitutive model for short-time loading of concrete. *Journal of the Engineering Mechanics Division, ASCE*, **105**, 127–141.
- Ottosen, N. S. (1980). Discussion of constitutive model for short-time loading of concrete. *Journal of the Engineering Mechanics Division, ASCE*, **106**, 1441–1443.
- Ottosen, N. S. (1986). Thermodynamic consequences of strain softening in tension. *Journal of Engineering Mechanics, ASCE*, **112**, 1152–1164.
- Ottosen, N. S. (1989). Failure criteria of concrete. In *Review of Constitutive Models for Concrete*, pages 130–166. Contract No. 3301-87-12 EL ISP DK, Report to Commision of the European Communities, Joint Research Centre, ISPRA.
- Ottosen, N. S. and Gunneskov, O. (1986). Numerical subincremental method for determination of elastic-plastic-creep behaviour. *International Journal for Numerical Methods in Engineering*, **21**, 2237–2256.
- Ottosen, N. S. and Krenk, S. (1982). Mechanics of gas and oil cavities in rock salt. *Byggningsstatistiske Meddelelser*, **53**, 1–56.
- Ottosen, N. S. and Petersson, H. (1992). *Introduction to the Finite Element Method*. Prentice Hall.
- Ottosen, N. S. and Ristinmaa, M. (1996). Corners in plasticity - Koiter's theory revisited. *International Journal of Solids and Structures*, **33**, 3697–3721.
- Ottosen, N. S. and Runesson, K. (1991a). Properties of discontinuous bifurcation solutions in elasto-plasticity. *International Journal of Solids and Structures*

- tures, **27**, 401–421.
- Ottosen, N. S. and Runesson, K. (1991b). Acceleration waves in elastoplasticity. *International Journal of Solids and Structures*, **28**, 135–159.
- Ottosen, N. S. and Runesson, K. (1991c). Discontinuous bifurcations in a nonassociated Mohr material. *Mechanics of Materials*, **12**, 255–265.
- Papadrakakis, M. (1993). Solving large-scale nonlinear problems in solid and structural mechanics. In M. Papadrakakis, editor, *Solving Large-Scale Problems in Mechanics*, pages 183–223. John Wiley & Sons.
- Park, K. C. and Felippa, C. A. (1983). Partitioned analysis of coupled systems, chapter 3. In T. Belytschko and T. J. R. Hughes, editors, *Computational Methods for Transient Analysis*, pages 157–219. North-Holland.
- Park, K. C., Felippa, C. A., and DeRuntz, J. A. (1977). Stabilization of staggered solution procedures for fluid-structure interaction analysis. In T. Belytschko and T. L. Geers, editors, *Computational Methods for Fluid-Structure Interaction Problems*, pages 95–124. ASME Applied Mechanics Symposia Series, AMD-Vol.26.
- Paul, B. (1968). Macroscopic criteria for plastic flow and brittle fracture. In B. Liebowitz, editor, *Fracture: An Advanced Treatise*, volume II, pages 315–496. Academic Press.
- Pedersen, P. (1995). Simple transformations by proper contracted forms: Can we change the usual practice? *Communications in Numerical Methods and Engineering*, **11**, 821–829.
- Peirce, D., Shih, C. F., and Needleman, A. (1984). A tangent modulus method for rate dependent solids. *Computers & Structures*, **18**, 875–887.
- Perry's Chemical Engineering Handbook (1984). McGraw-Hill. 6th edition.
- Perzyna, P. (1963). The constitutive equations for rate sensitive plastic materials. *Quarterly of Applied Mathematics*, **20**, 321–332.
- Perzyna, P. (1966). Fundamental problems in viscoplasticity. In *Advances in Applied Mechanics*, volume 9, pages 243–377. Academic Press.
- Perzyna, P. (1971). Thermodynamic theory of viscoplasticity. In *Advances in Applied Mechanics*, volume 11, pages 313–354. Academic Press.
- Perzyna, P. and Sawczuk, A. (1973). Problems of thermoplasticity. *Nuclear Engineering and Design*, **24**, 1–55.
- Phillips, A. (1974). The foundations of thermoplasticity - experiments and theory. In J. L. Zeman and F. Ziegler, editors, *Topics in Applied Continuum Mechanics*, pages 1–21. Springer-Verlag.
- Phillips, A. and Tang, J. L. (1972). The effect of loading path on the yield surface at elevated temperatures. *International Journal of Solids and Structures*, **8**, 463–474.

- Pipkin, A. C. (1972). *Lectures on viscoelastic theory*. Springer-Verlag.
- Plowman, J. M. (1956). Maturity and the strength of concrete. *Magazine of Concrete Research*, **8**, 13–22.
- Podgorski, J. (1985). General failure criterion for isotropic media. *Journal of Engineering Mechanics, ASCE*, **111**, 188–201.
- Popovicz, S. (1970). A review of stress-strain relationships for concrete. *Journal of the American Concrete Institute*, **67**, 243–248.
- Potts, D. M. and Gens, A. (1985). A critical assessment of methods of correcting for drift from the yield surface in elastoplastic finite element analysis. *International Journal for Numerical and Analytical Methods in Geomechanics*, **9**, 149–159.
- Prager, W. (1945). Strain hardening under combined stresses. *Journal of Applied Physics*, **16**, 837–840.
- Prager, W. (1949). Recent developments in mathematical theory of plasticity. *Journal of Applied Physics*, **20**, 235–241.
- Prager, W. (1955). The theory of plasticity: A survey of recent achievements. *Institution of Mechanical Engineers*, **169**, 41–57.
- Prager, W. (1958). Non-isothermal plastic deformation. In *Proceedings, Koninkl Nederl. Akademie Van Wetenschappen Te Amsterdam, Series B, Vol.61*.
- Prager, W. (1961). *Introduction to Mechanics of Continua*. Dover Publications.
- Pramono, E. and Willam, K. (1989). Implicit intergration of composite yield surfaces with corners. *Engineering Computations*, **6**, 186–197.
- Prandtl, L. (1920). Über die härte plastischer körper. In *Nachrichten der Gesellschaft der Wissenschaften Göttingen, Mathematisch-Physikalische Klasse, Göttingen*, pages 74–85.
- Prandtl, L. (1924). Spannungsverteilung in plastischen körpern. In *Proceedings of the first International Congress on Applied Mechanics, Delft*, pages 43–54.
- Prandtl, L. (1928). Ein gedankenmodell zur kinetischen theorie der festen körper. *Zeitschrift für angewandte Mathematik und Mechanik*, **8**, 85–106.
- Rabotnov, Y. N. (1969). *Creep Problems in Structural Members*. North-Holland Publishing Company.
- Rabotnov, Y. N. (1980). *Elements of Hereditary Solid Mechanics*. Mir Publishers, Moscow.
- Radenkovic, D. (1961). Théorèmes limites pour un matériau de coulomb á dilatation non standardisée. *Comptes Rendus l'Académie des Sciences Paris*, **252**, 4103–4104.
- Ramberg, W. and Osgood, W. R. (1943). *Description of Stress-Strain Curves by Three Parameters*. National Advisory Committee for Aeronautics, Technical Notes No.902, Washington.

- Raniecki, B. and Bruhns, O. T. (1981). Bounds to bifurcation stresses in solids with non-associated flow law at finite strain. *Journal of the Mechanics and Physics of Solids*, **29**, 153–172.
- Raniecki, B. and Sawczuk, A. (1975). Thermal effects in plasticity. Part I. Coupled theory. *Zeitschrift für angewandte Mathematik und Mechanik*, **55**, 333–341.
- Rankine, W. J. M. (1858). *A Manual of Applied Mechanics*. Griffin, London.
- Rathkjen, A. (1986). Failure criteria for reinforced materials. *Byggningsstatistiske Meddelelser*, **57**, 1–36.
- Ray, S. K. and Utko, S. (1989). A numerical model for the thermo-elasto-plastic behaviour of a material. *International Journal for Numerical Methods in Engineering*, **28**, 1103–1114.
- Reddy, B. D. and Martin, J. B. (1994). Internal variable formulations and problems in elastoplasticity: Constitutive and algorithmic aspects. *Applied Mechanics Reviews*, **47**, 429–456.
- Reiner, M. (1945). A mathematical theory of dilatancy. *American Journal of Mathematics*, **67**, 350–361.
- Reuss, W. (1930). Berücksichtigung der elastischen formänderungen in der plastizitätstheorie. *Zeitschrift für angewandte Mathematik und Mechanik*, **10**, 266–274.
- Rice, J. R. (1976). The localization of plastic deformation. In W. T. Koiter, editor, *Theoretical and Applied Mechanics. Proceedings of the 14th IUTAM Congress, Delft, The Netherlands, 30 Aug.-4 Sept.*, pages 207–220. North-Holland Publishing Company.
- Richart, F. E., Brandtzaeg, A., and Brown, R. L. (1928). *A Study of the Failure of Concrete under Combined Compressive Stresses*. Bulletin No. 185, University of Illinois, Engineering Experiment Station, Urbana, IL.
- Ristinmaa, M. (1999). Thermodynamic formulation of plastic work hardening materials. *Journal of Engineering Mechanics, ASCE*, **125**, 152–155.
- Ristinmaa, M. and Ottosen, N. S. (1998). Viscoplasticity based on an additive split of the conjugated forces. *European Journal of Mechanics. A/Solids*, **17**, 207–235.
- Ristinmaa, M. and Ottosen, N. S. (2000). Consequences of dynamic yield function in viscoplasticity. *International Journal of Solids and Structures*, **37**, 4601–4622.
- Ristinmaa, M. and Tryding, J. (1993). Exact integration of constitutive equations in elasto-plasticity. *International Journal for Numerical Methods in Engineering*, **36**, 2525–2544.
- Rivlin, R. S. and Ericksen, J. L. (1955). Stress-deformation relations for isotropic materials. *Journal of Rational Mechanics and Analysis*, **4**, 323–425.

- Rizzi, E., Carol, I., and Willam, K. (1995). Localization analysis of elastic degradation with application to scalar damage. *Journal of Engineering Mechanics, ASCE*, **121**, 541–554.
- Rizzi, E., Maier, G., and Willam, K. (1996). On failure indicators in multi-dissipative materials. *International Journal of Solids and Structures*, **33**, 3187–3214.
- Robinson, D. N. (1978). *A unified creep plasticity model for structural metals at high temperature*. ORNL-5969, U.S. Atomic Energy Commission. Oak Ridge National Laboratory.
- Rosakis, P., Rosakis, A., Ravichandran, G., and Hodowany, J. (2000). A thermodynamic internal variable model for the partition of plastic work into heat and stored energy in metals. *Journal of the Mechanics and Physics of Solids*, **48**, 581–607.
- Rowley, M. A. and Thornton, E. A. (1996). Constitutive modeling of the viscoplastic response of hastelloy-x and aluminium alloy 8009. *Journal of Engineering Materials and Technology*, **118**, 19–27.
- Rudnicki, J. W. and Rice, J. R. (1975). Conditions for the localization of deformation in pressure-sensitive dilatant materials. *Journal of the Mechanics and Physics of Solids*, **23**, 371–394.
- Runesson, K. and Booker, J. R. (1982). On mixed and displacement finite element methods in perfect elasto-plasticity. In *Proc. of the Fourth Int. Conf. in Australia on Finite Element Methods*, pages 85–89.
- Runesson, K. and Mroz, Z. (1989). A note on non-associated plastic flow rules. *International Journal of Plasticity*, **5**, 639–658.
- Runesson, K. and Samuelsson, A. (1985). Aspects on numerical techniques in small deformation plasticity. In J. Middleton and G. N. Pande, editors, *NUMETA 85. Numerical Methods in Engineering: Theory and Applications*, volume 1, pages 337–347. A. A. Balkema, Rotterdam.
- Runesson, K., Ottosen, N. S., and Perić, D. (1991). Discontinuous bifurcations of elastic-plastic solutions at plane stress and plane strain. *International Journal of Plasticity*, **7**, 99–121.
- Runesson, K., Ristinmaa, M., and Mähler, L. (1999). A comparison of viscoplasticity formats and algorithms. *Mechanics of Cohesive-Frictional Materials*, **4**, 75–98.
- Saint-Venant, B. (1870). Mémoire sur l'établissement des équations des mouvements intérieurs opérés dans les corps solides ductiles au delà des limites où l'élasticité pourrait les ramener à leur premier état. *Comptes Rendus l'Académie des Sciences*, **70**, 473–480.
- Sargin, M. (1971). *Stress-Strain Relationships for Concrete and the Analysis of Structural Concrete Sections*. University of Waterloo, Canada, Solid Me-

- chanics Division, SM Study No.4, pages 23-46.
- Sawczuk, A. (1984). On consistent formulations of stress-strain relations for concrete at combined load and heating. *Verba Volant, Scripta Manent Festschrift for prof. Masonnet*, pages 325-331.
- Schellekens, J. C. J. and de Borst, R. (1992). Application of anisotropic softening plasticity to mixed-mode delamination in composites. In D. R. J. Owen, E. Oñate, and E. Hinton, editors, *Proceedings of Third International Conference on Computational Plasticity*, pages 1671-1683.
- Schickert, G. and Winkler, H. (1977). Results of tests concerning strength and strain of concrete subjected to multiaxial compressive stresses. *Deutscher Ausschuss für Stahlbeton, Heft 277, Berlin*.
- Schleicher, F. (1926). Der spannungszustand an der fließgrenze (plasticitätsbedingung). *Zeitschrift für angewandte Mathematik und Mechanik*, **6**, 199-216.
- Schmidt, E. (1963). *Einführung in die Technische Thermodynamik und in die Grundlagen der chemischen thermodynamik*. Springer-Verlag. Zehnten Auflage.
- Schneider, U. (1988). Concrete at high temperatures - A general review. *Fire Safety Journal*, **13**, 55-68.
- Schneider, U., Diederichs, U., and Ehm, C. (1981). Effect of temperature on steel and concrete for PCRV's. *Nuclear Engineering and Design*, **67**, 245-258.
- Schreyer, H. L. and Babcock, S. M. (1985). A third-invariant plasticity theory for low-strength concrete. *Journal of Engineering Mechanics, ASCE*, **111**, 545-558.
- Schreyer, H. L. and Neilsen, M. K. (1996). Discontinuous bifurcation states for associated smooth plasticity and damage with isotropic elasticity. *International Journal of Solids and Structures*, **33**, 3239-3256.
- Schwarzl, F. and Staverman, A. J. (1952). Time-temperature dependence of linear viscoelastic behavior. *Journal of Applied Physics*, **28**, 838-843.
- Scott, R. F. (1963). *Principles of Soil Mechanics*. Addison-Wesley.
- Sears, F. W. (1959). *In introduction to thermodynamics, the kinetic theory of gases, and statistical mechanics*. Addison-Wesley Publishing Company. Second edition.
- Segel, L. A. (1987). *Mathematics Applied to Continuum Mechanics*. Dover Publications.
- Sewell, M. L. (1973). A plastic flow rule at a yield vertex. *Journal of the Mechanics and Physics of Solids*, **22**, 469-490.
- Shannon, D. F. (1970). Conditioning of quasi-Newton methods for function

- minimization. *Mathematical Computation*, **24**, 647–656.
- Shield, R. T. and Ziegler, H. (1958). On Prager's hardening rule. *Zeitschrift für angewandte Mathematik und Physik*, **IXa**, 260–276.
- Simo, C. and Honein, T. (1990). Variational formulation, discrete conservation-laws, and path-domain independent integrals for elastoviscoplasticity. *Journal of Applied Mechanics*, **57**, 488–497.
- Simo, C. and Taylor, R. L. (1985). Consistent tangent operators for rate-independent elasto-plasticity. *Computer Methods in Applied Mechanics and Engineering*, **48**, 101–118.
- Simo, J. C. and Hughes, T. J. R. (1998). *Computational Inelasticity*. Springer-Verlag.
- Simo, J. C. and Miehe, C. (1992). Associate coupled thermoplasticity at finite strains: Formulation, numerical analysis and implementation. *Computer Methods in Applied Mechanics and Engineering*, **98**, 41–104.
- Simo, J. C., Kennedy, J. G., and Govindjee, S. (1988). Non-smooth multisurface plasticity and viscoplasticity - Loading/unloading conditions and numerical algorithms. *International Journal for Numerical Methods in Engineering*, **26**, 2161–2185.
- Sloan, S. W. (1987). Substepping schemes for the numerical integration of elastoplastic stress-strain relations. *International Journal for Numerical Methods in Engineering*, **24**, 893–911.
- Sloan, S. W. and Booker, J. R. (1992). Integration of Tresca and Mohr-Coulomb constitutive relations in plane strain elastoplasticity. *International Journal for Numerical Methods in Engineering*, **33**, 163–196.
- Služalec, A. (1988). An analysis of thermal effects of coupled thermo-plasticity in metal forming processes. *Communications in Applied Numerical Methods*, **4**, 675–685.
- Služalec, A. (1992). Temperature rise in elastic-plastic metal. *Computer Methods in Applied Mechanics and Engineering*, **96**, 293–302.
- Smith, G. F. (1971). On isotropic functions of symmetric tensors, skew-symmetric tensors and vectors. *International Journal of Engineering Science*, **9**, 899–916.
- Smith, G. F. and Rivlin, R. S. (1957). The anisotropic tensors. *Quarterly of Applied Mathematics*, **15**, 308–314.
- Soderberg, C. R. (1936). The interpretation of creep tests for machine design. *Transactions of the American Society of Mechanical Engineers*, **58**, 733–743.
- Sokolnikoff, I. S. (1946). *Mathematical Theory of Elasticity*. McGraw-Hill Book Company.
- Sokolnikoff, I. S. (1951). *Tensor Analysis. Theory and Applications*. John Wiley

- & Sons.
- Sokolnikoff, I. S. and Redheffer, R. M. (1958). *Mathematics of Physics and Modern Engineering*. McGraw-Hill Book Company.
- Spain, B. (1965). *Tensor Calculus*. Oliver and Boyd.
- Spencer, A. J. M. (1971). Theory of invariants. In A. C. Eringen, editor, *Continuum Physics*, volume 1, pages 239–353. Academic Press.
- Spencer, A. J. M. (1980). *Continuum Mechanics*. Longman Group Limited.
- Stouffer, D. C. and Dame, L. T. (1996). *Inelastic Deformation of Metals*. John Wiley & Sons.
- Strang, G. (1980). *Linear Algebra and its Applications*. Academic Press.
- Strang, G. (1986). *Introduction to Applied Mathematics*. Wellesley-Cambridge Press.
- Stricklin, J. A. and Haisler, W. E. (1977). Formulation and solution procedures for nonlinear structural analysis. *Computers & Structures*, **7**, 125–136.
- Stricklin, J. A., Haisler, W. E., and von Riesmann, W. A. (1971). Self-correcting initial value formulations in nonlinear structural mechanics. *AIAA Journal*, **9**, 2066–2067.
- Strömberg, L. and Ristinmaa, M. (1996). FE-formulation of a nonlocal plasticity theory. *Computer Methods in Applied Mechanics and Engineering*, **136**, 127–144.
- Sture, S. and Ko, H.-Y. (1978). Strain-softening of brittle geological materials. *International Journal for Numerical and Analytical Methods in Geomechanics*, **2**, 237–253.
- Swanson, S. R. and Brown, W. S. (1971). An observation of loading path independence of fracture in rock. *International Journal of Rock Mechanics and Mining Sciences*, **8**, 277–281.
- Taylor, G. I. (1938). Plastic strain in metals. *Journal of Institute of Metals*, **62**, 307–324.
- Taylor, G. I. (1947). A connexion between the criterion of yield and the strain ratio relationship in plastic solids. *Proceedings of the Royal Society of London Series A*, **191**, 441–446.
- Taylor, G. I. and Quinney, H. (1931). The plastic distortion of metals. *Philosophical Transaction of the Royal Society, London*, **A230**, 323–362.
- Taylor, G. I. and Quinney, H. (1934). The latent energy remaining in a metal after cold working. *Proceedings of the Royal Society of London Series A*, **143**, 307–326.
- Thelandersson, S. (1987). Modeling of combined thermal and mechanical action in concrete. *Journal of Engineering Mechanics, ASCE*, **113**, 893–906.
- Thomas, T. Y. (1961). *Plastic Flow and Fracture in Solids*. Academic Press.

- Tomita, Y. (1994). Simulations of plastic instabilities in solid mechanics. *AMR*, **47**, 171–205.
- Tresca, H. (1864). Mémoire sur l'écoulement des corps solides soumis à de fortes pressions. *Comptes Rendus de l'Académie des Sciences*, **59**, 754–758.
- Truesdell, C. (1955a). Hypo-elasticity. *Journal of Rational Mechanics and Analysis*, **4**, 83–133 and 1019–1020.
- Truesdell, C. (1955b). The simplest rate theory of pure elasticity. *Communications on Pure and Applied Mathematics*, **8**, 123–132.
- Truesdell, C. (1969). *Rational Thermodynamics: A course of lectures on selected topics*. McGraw-Hill.
- Truesdell, C. and Noll, W. (1965). The non-linear field theories of mechanic. In S. Flügge, editor, *Handbuch der Physik*, volume III/3. Springer-Verlag.
- Truesdell, C. and Toupin, R. A. (1960). The classical field theories. In S. Flügge, editor, *Handbuch der Physik, Principles of Classical Mechanics and Field Theory*, volume III/1. Springer-Verlag.
- Tryding, J. (1994). A modification of the Tsai-Wu failure criterion for the biaxial strength of paper. *Tappi Journal*, **77**, 132–134.
- Tsai, S. T. and Wu, E. M. (1971). A general theory of strength for anisotropic materials. *Journal of Composite Materials*, **5**, 58–80.
- Tuğcu, P. (1995). Heat conduction effects on strain localization in plane-strain tension. *International Journal for Numerical Methods in Engineering*, **38**, 2083–2099.
- Vainberg, M. M. (1964). *Variational Methods for the Study of Nonlinear Operators*. Holden-Day, San Francisco.
- Valanis, K. C. (1968). The viscoelastic potential and its thermodynamic foundations. *Journal of Mathematics and Physics*, **47**, 262–275.
- Vecchi, M. (1998). *Heat generation due to plastic deformations*. Lic. thesis, Solid Mechanics, Lund Institute of Technology, Sweden, LUTFD 2/(TFHF-1019).
- Vermeer, P. A. and de Borst, R. (1984). Non-associated plasticity for soils, concrete and rock. *Heron (Delft)*, **29**, 1–64.
- Vicat, L. J. (1834). Note sur l'allongement progressif du fil de fer soumis à diverses tensions. *Annales du ponts et chaussées, Mémoires et documents relatifs à l'art des constructions et au service de l'ingénieur*.
- Voigt, W. (1892). Über innere reibung fester körper, insbesondere der metalle. *Annalen der Physik und Chemie*, **47**, 671–693.
- Voigt, W. (1928). *Lehrbuch der kristalphysik*. Teubner, Leipzig.
- Volterra, V. (1913). *Leçons sur les Fonctions de Lignes*. Gauthier-Villard, Paris.
- Volterra, V. (1959). *Theory of Functionals and of Integral and Integro-*

- differential Equations*. Dover Publications.
- von Kármán, T. (1911). Festigkeitsversuche unter allseitigem druck. *Zeitschrift des vereins deutscher Ingenieure*, **55**, 1749–1757.
- von Mises, R. (1913). Mechanik der festen körper im plastisch deformablen zustand. *Nachrichten der Gesellschaft der Wissenschaften in Göttingen. Mathematisch-Physiskalische Klasse, Göttingen*, pages 582–592.
- von Mises, R. (1928). Mechanik der plastischen formänderung von kristallen. *Zeitschrift für angewandte Mathematik und Mechanik*, **8**, 161–185.
- Walker, K. P. (1981). *Research and Development Program for Nonlinear Structural Modeling with Advanced Time-Temperature Dependent Constitutive Relationships*. NASA CR 165533.
- Wallin, M. and Ristinmaa, M. (2001). Accurate stress updating algorithm based on constant strain rate assumption. *Computer Methods in Applied Mechanics and Engineering*, **190**, 5583–5601.
- Wang, C.-C. (1970). A new representation theorem for isotropic functions: An answer to Professor G.F. Smith's criticism of my papers on representations for isotropic functions, part 1, scalar-valued isotropic functions, part 2, vector-valued isotropic functions, symmetric tensor-valued isotropic functions and skew-symmetric tensor-valued isotropic functions. *Archive for Rational Mechanics and Analysis*, **36**, 166–197 and 198–223.
- Wang, T. T. and Onat, E. T. (1968). Nonlinear mechanical behavior of 1100 aluminium at 300F. *Acta Mechanica*, **5**, 54–70.
- Westergaard, H. M. (1920). On the resistance of ductile materials to combined stresses in two and three directions perpendicular to one another. *Journal of the Franklin Institute*, **189**, 627–640.
- Wilkins, M. L. (1964). Calculation of elastic-plastic flow. In B. Alder, S. Fernbach, and M. Rotenberg, editors, *Methods of Computational Physics*, volume 3, pages 211–263. Academic Press.
- Willam, K. J. and Warnke, E. P. (1974). *Constitutive Model for the Triaxial Behaviour of Concrete*. International Association of Bridge and Structural Engineers Seminar on Concrete Structures subjected to Triaxial Stresses, Paper III-1, Bergamo, Italy, May 17-19.
- Williams, J. G. (1980). *Stress Analysis of Polymers*. Ellis Horwood Limited. Second edition.
- Wriggers, P., Miehe, C., Kleiber, M., and Simo, J. C. (1992). On the coupled thermomechanical treatment of necking problems via finite element methods. *International Journal for Numerical Methods in Engineering*, **33**, 869–883.
- Wu, Z. and Glockner, P. G. (1996). Thermo-mechanical coupling applied to plastics. *International Journal of Solids and Structures*, **33**, 4431–4448.
- Yamada, Y., Yishimura, N., and Sakurai, T. (1968). Plastic stress-strain matrix

- and its application for the solution of elastic-plastic problems by the finite element method. *International Journal of Mechanical Science*, **10**, 343–354.
- Yoder, P. J. and Iwan, W. F. (1981). On the formulation of strain-space plasticity with multiple loading surfaces. *Journal of Applied Mechanics*, **48**, 773–778.
- Yoder, P. J. and Whirley, R. G. (1984). On the numerical implementation of elastoplastic models. *Journal of Applied Mechanics*, **51**, 283–288.
- Yu, M.-H. (2002). Advances in strength theories for materials under complex stress states in the 20th century. *Applied Mechanics Reviews*, **55**, 169–218.
- Zheng, Q.-S. (1994). Theory of representations for tensor functions - a unified invariant approach to constitutive equations. *Applied Mechanics Reviews*, **47**, 545–587.
- Ziegler, H. (1958). An attempt to generalize Onsager's principle, and its significance for rheological problems. *Zeitschrift für angewandte Mathematik und Physik*, **9b**, 748–763.
- Ziegler, H. (1959). A modification of Prager's hardening rule. *Quarterly of Applied Mathematics*, **XVII**, 55–65.
- Zienkiewicz, O. C. and Watson, M. (1966). Some creep effects in stress analysis with particular reference to concrete pressure vessels. *Nuclear Engineering and Design*, **4**, 406–412.
- Zienkiewicz, O. C. and Taylor, R. (1989). *The Finite Element Method*, Vol. 1. McGraw-Hill Book Company. Fourth edition.
- Zienkiewicz, O. C. and Taylor, R. (1991). *The Finite Element Method*, Vol. 2. McGraw-Hill Book Company. Fourth edition.
- Zienkiewicz, O. C., Valliappan, S., and King, I. P. (1969). Elasto-plastic solutions of engineering problems. Initial-stress finite element approach. *International Journal for Numerical Methods in Engineering*, **1**, 75–100.