

---

---

# BIBLIOGRAPHY

- Baba, I.; Inada, K. and Tajnna, K. (1964). Mineral nutrition : Occurance of physiological diseases. In : The mineral nutrition of the rice plant. Proceeding of a symposium at the International Rice Research Institute, Publ. Joh-Hopkins Press. Baltimore, Maryland.
- Bajaj, K.L., Singh, P.P. and Kaur, G. (1985). Effect of cercosporin toxin on polyphenol metabolism in mung bean (*Vigna radiata* L. Wilczek) leaves. *Biochem. Physiol. Pflanz.*, 180 : 621-624.
- Basu, P.S. and Tuli, V. (1972). Auxin activity of 3-methyl-eneoxindole in wheat. *Plant Physiol.*, 50 : 499-502.
- Benedict, W.G. (1971). Effect of intensity and quality of light on peroxidase activity associated with *Septoria* leaf spot of tomato. *Canad. J. Botany*, 49 : 1721-1722.
- Bharucha, F.R. and Joshi, G.V. (1958). Studies in Crassulacean acid metabolism in *Bryoplyllum calycinum*. *J. Biol. Sci.*, 1 : 5-12.
- Braber, Johanna, M. (1980). Catalase and peroxidase in primary bean leaves during development and senescence. *Z. Pflanzen-Physiol.*, 97 : 135-144.
- Brennan, T.A. and Frenkel, C. (1977). Differences in the activity of enzymes involved in the regulation of H<sub>2</sub>O<sub>2</sub> concentration in ripening fruit. *Suppl. to Plant Physiol.*, 59(6) : Ab No. 481.

- Brill, A.S. (1966). Peroxidases and catalase. In : *Comprehensive Biochemistry, Vol. XIV* : p.447-479 (M. FLORKIN, ed.). Amsterdam-London, New York, Elsevier Publ.
- Byrant, S.D. and Lane, F.E. (1979). *Plant Physiol.*, 63, 696.
- Chavan, P.D. and Karadge, B.A. (1986). Growth, mineral nutrition, organic constituents and rate of photosynthesis in *Sesbania grandiflora* grown under saline conditions. *Plant and Soil*, 93(3) : 395-404.
- Daly, J.M. (1972). The use of near-isogenic lines in biochemical studies of the resistance of wheat of stem rust. *Phytopathology*, 62 : 392-400.
- Daly, J.M.; Ludden, P. and Seevers, P. (1971). Biochemical comparisons of resistance to wheat stem, rust disease controlled by the sr-11 alleles. *Physiol. Plant Pathol.*, 1 : 397-407.
- Daly, J.M.; Seevers, P.M. and Ludden, P. (1970). Studies on wheat stem rust resistance controlled at the sr 6 locus III. Ethylene and disease reaction. *Phytopathology*, 60 : 1648-1652.
- Daly, T.M. and Jerina, D.M. (1970). Aerobic aromatic hydroxylation catalyzed by horseradish peroxidase. Absence of NIH shift. *Biochem. Biophys. Acta.*, 208 : 340-342.

- Darimont, E. and Boxter, R. (1973). Ribosomal and mitochondrial peroxidase isozymes of lentil (*Lens culinaris*) root. *Planta*, 110 : 205-212.
- Dat, J.M.; Humberto, L.D.; Christne, H.F. and Lan, M.S. (1994). Parallel changes in H<sub>2</sub>O<sub>2</sub> and catalase during thermotolerance induced by salyclic acid or heat acclimation in mustard seedlings. *Plant Physiol.*, Vol. 106 : 1048-1055.
- Davis, B.J. (1964). Disc electrophoresis II. Method and application to human serum proteins. *Ann. N.Y. Acad. Sci.*, 121 : 404-427.
- De Robertis, E.M.F. and De Robertis, E.M.F. Jr. (1987). *Cell and molecular biology, Eighth edition*, B.I. Waverly Pvt. Ltd., New Delhi.
- Dhindsa, Rajinder, S.J.; Dhindsa Palnela Plumb and Thorpe, T.A. (1981). Leaf senescence correlated with increased levels of membrane permeability and lipid peroxidation and decreased levels of superoxide dismutase and catalase. *J. Exp. Bot.*, 32(126) : 93-102.
- Du, Shi-Hua and Sheng C. Fang (1983). Catalase activity of 3-carbon pathway and C<sub>4</sub>-carbon pathway species and its relationship to mercury vapour uptake. *Environ. Exp. Bot.*, 23(4) : 347-354.
- Farkas, G.L. and Kiraly, Z. (1958). Enzymological aspects of plant diseases I. oxidative enzymes. *Phytopathol.*, Z-31 : 251-272.

- Farkas, G.L. and Kiraly, Z. (1962). Role of phenolic compounds in the physiology of plant disease resistance. *Phytopathol.*, Z-44 : 105-150.
- Filner, P.H.; Wray, J. and Varner, J.E. (1969). Enzyme induction in higher plants. *Science*, 165 : 358-367.
- Fowler, J.K. and Morgan, P.W. (1972). The relationship of peroxidative indole acetic acid oxidase system to in vivo ethylene synthesis in cotton. *Plant Physiol.*, 49 : 555-559.
- Fric, F. (1969). Phenolische stoffe and oxydasen Vom. Standpunkt der Resistenrder Gerste gegen. Mehltau (*Erysiphe graminis* f.sp. *hordei* Marchal) *Biologia (Bratislava)*., 24 : 54-67.
- Fric, F. (1971). Enzyme des Indolylessigaureabbaues in Gerstenblättern. *Biologia (Bratislava)*, 26 : 677-688.
- Fric, F. and Fuchs, W.H. (1970). Veranderungen der Aktivitat einiger enzyme in Weizenblatt in Abhagigkeit von der temperatur labilenvertraglichkeit fur *Puccinia graminis tritici*. *Phytopathol.*, Z-67 : 161-174.
- Galston, A.W. and Davies, P.J. (1969). Hormonal regulation in higher plants. *Science*, 163 : 1288-1297.
- Grinberg, A.A. (1971). Physicochemical basis of the protective function of catalase. *Lalv. PSR Zi Nat. Akad. Vestis. J 2* : 60-62.

- Gross, G.G.; Janse, C. and Elstner, F.F. (1977). Involvement of malate, monophenols and superoxide radical in hydrogen peroxide formation by isolated cell walls from horseradish (*Armoracia lapathifolia* Gilib). *Planta.*, 136 : 271-276.
- Grzelinska, A. (1969). Changes in protein level and activities of several enzymes in susceptible and resistant tomato plants after infection by *Fusarium oxysporum* *F. lycopersici* (Sacc.) snyder et. Hansen. *Phytopathol.*, Z-66 : 374-380.
- Halliwell, B. (1978). Lignin synthesis : The generation of hydrogen peroxide and its stimulation by manganese (II) and phenols. *Planta*, 140 : 81-88.
- Hare, R.C. (1964). Indoleacetic acid oxidase. *Botan. Rev.*, 30 : 129-165.
- Hatch, M.D.; Kagawa, T. and Craig, S. (1975). Sub division of C<sub>4</sub> pathway species based on differing C<sub>4</sub> acid decarboxylating systems and ultrastructural features. *Aust. J. Plant Physiol.*, 2 : 111-128.
- Heitefuss, R., Stahmann, M.A. and Walker, J.C. (1960). Oxidative enzymes in cabbage infected by *Fussarium oxysporium*. *F. coxglutinans*. *Phytopathology*, 50 : 370-375.
- Hinman, R. L. and Lang, J. (1965). Peroxidase catalyzed oxidation of Indole 3. Acetic Acid. *Biochem.*, 4: 144-158.

- Hopkala, H.A.; Ginalska, J.G. and Lobarzewski, J. (1999). The influence of iodine ions on the activity of soluble peroxidase. *Plant Peroxidase, Newsletter no. 12* : 31-35.
- Horovitz, C.T., Brad, I., Enescu, I., Niculesca, S. and Joki, E. (1968). Biochemical differences in maize as related to mineral deficiencies. I. Changes in the activity of some enzymes. *Physiol Plant.*, 21 (6) : 1332-1340.
- Hoyle, M.C. (1972). Indole acetic acid oxidase : a dual catalase enzyme ? *Plant Physiol.*, 50 : 15-18.
- Ingham, L.M.; Parkar, M.L. and Waldron, K.W. (1998). Peroxidase : Changes in soluble and bound forms during maturation and ripening of apple. *Physiol. Plant.*, 102 : 93-100.
- Ivanova, T.M.; Davydova, M.A. and Rubin, B.A. (1966). On mitochondrial peroxidase and its possible role in oxidative processes. *Biochimiya.*, 31 : 1167-1175 (In Russian).
- Ivanova, T.M.; Davydova, M.A. and Rubin, B.A. (1967). On catalytic functions of peroxidase. *Biochimiya*, 32 : 607-611 (In Russian).
- Jaynes, T.A.; Haskins, F.A. and Gorz, H.J. (1972). Oxidation of phenylpyruvate by sweet clover peroxidase. *Phytochemistry*, 11 : 563-569.

- Jong, D.W. (1967). DE. An investigation of the role plant peroxidase in cell wall development by the histochemical method. *J. Histochem. Cytochem.*, 15 : 335-346.
- Joshi G.V. and Karadge, B.A. (1979). Effect of sodium chloride on photosynthetic  $^{14}\text{CO}_2$  assimilation in *Portulaca oleracea* Linn. *Indian J. Exp. Biol.*, 17 : 167-170.
- Joshi, G.V. and Karadge, B.A. (1980). Photosynthesis in green and senescent leaves of *Portulaca oleracea* Linn. *Proc. Indian Natl. Sci. Acad.*, B46(3) : 361-368.
- Joshi, G.V., Karadage, B.A. and Bartakke, S.P. (1978). Photosynthetic carbon metabolism in succulents. *Environ. Physiol. Ecol. Plants* (U.N. Chatterji Memorial volume) D.N. Sen and B.P. Bansal (eds.) pp.87-96. *Bishen Singh Mahendrapal Singh, Dehra Dun.*
- Judel, G.K. (1972). Peroxidase and catalase activity and the content of total phenols in the leaves of sunflowers as affected by copper and nitrogen deficiency. *Z. Pflanzenernacher. Bod. enke.*, 133 : 191-195.
- Kar, M. and Mishra, D. (1976). Catalase, peroxidase and polyphenol oxidase activities during rice leaf senescence. *Plant Physiol.*, 57 : 315-319.

- Karadge, B.A. (1981). Physiological studies in succulents. A Ph.D. Thesis submitted to Shivaji University, Kolhapur (India).
- Karadge, B.A. and Joshi, G.V. (1980). Carbon assimilation and Crassulacean Acid metabolism in *Portulaca oleraceae* Linn. *Indian J. Exp. Biol.*, 18 : 631-634.
- Kogima, M. and Conn, E.E. (1982). Tissue distribution of chlorogenic acid and the enzymes involved in its metabolism in the leaves of *Sorghum bicolor*, *Plant. Physiol.*, 70 : 922-925.
- Kosuge, T. (1969). The role of phenolics in host response to infection. *Ann. Rev. Phytopathol.*, 7 : 195-222.
- Ku, H.S.; Yang, S.F. and Pratt, H.K. (1970a). Ethylene production and peroxidase activity during tomato fruit ripening. *Plant Cell Physiol.*, (Tokyo) 11 : 241-246.
- Ku, H.S.; Yang, S.F. and Pratt, H.K. (1970b). Inactivity of apoperoxidase in indole-acetic acid oxidation and ethylene formation. *Plant Physiol.*, 45 : 358-359.
- Kuc, J. (1966). Resistance of plants to infectious agents. *Ann. Rev. Microbiol.*, 21 : 337-370.
- Lazar, G. and Farkas, G.L. (1970). Patterns of enzyme changes during leaf senescence. *Acta. Biol. Acad. Sci. Hung.*, 21 : 389-396.

- Lehrer, R.I. (1969). Antifungal effects of peroxidase systems. *J. Bacteriol.*, 99 : 361-365.
- Liberman, M. (1979). Biosynthesis and action of ethylene. *Ann. Rev. Plant Physiol.*, 30 : 539-591.
- Loon, L.C. and Geelen, J.L.M. (1971). The relation of polyphenoloxidase and peroxidase to symptoms expression in tobacco var. "samsun NN" after infection with tobacco mosaic virus. *Acta. Phytopathol. Acad. Sci., Hung* 6 : 9-20.
- Loverkovich, L.; Loverkovich H. and Stahmann, M.A. (1968a). The importance of peroxidase in the wild fire disease. *Phytopathol.*, 58 : 193-198.
- Lovrekovich, L., Lovrekovich, H. and Stahmann, M.A. (1968b). Tobacco mosaic virus induced resistance to *Pseudomonas tabaci* in tobacco. *Phytopathology*, 58.
- Lowry, O.H.; Rosebrough, N.J., Farr, A.L. and Randall, R.J. (1951). Protein measurement with folin phenol reagent. *J. Biol., Chem.*, 193 : 265-275.
- Macko, V.; Woodbury, W. and Stahmann, M.A. (1968). The effect of peroxidase on the germination and growth of mycelium of *Puccinia graminis* f. sp. *tritici*. *Phytopathol.*, 58 : 1250-1254.
- Maehly, A.C. (1954). In : Methods in biochemical analysis Gick, D. (ed.). Vol.I, pp.385-386. *Interscience Publishers Inc., New York*.

- Matile, P. (1980). Catabolism of chlorophyll : Involvement of peroxidase ?  
*Z. Pflanzenphysiol.*, 99 (5) : 475-478.
- Mazelis, M. (1962). The pyridoxal phosphate dependent oxidative decarboxylation I. Characteristic and properties of the reaction. *J. Biol. Chem.*, 337 : 104-108.
- Mazelis, M. and Ingraham, L.L. (1962). The pyridoxal phosphate-dependent oxidative decarboxylation of methionine by peroxidase II. Identification of 3-methyl-thio-propioamide as a product of the reaction. *J. Biol. Chem.*, 237 : 109-112.
- Medut, W.J. (1967). Studies on the oxidation of Indole-3-acetic acid by peroxidase enzymes. *Ann. N.Y. Acad. Sci.*, 144 : 118-128.
- Medut, W.J. (1970). Indole-3-acetic acid in *Nicotiana* hybrid and its parental types. *Physiol. Plant.*, 23 : 841-849.
- Moustafa, F.A. and Whittenbury, R. (1970). Properties which appear to allow phytopathogenic pseudomonads to counteract plant defence mechanism. *Phytopathol.*, Z-67 : 215-224.
- Parish, R.W. (1968). Studies on senescencing tobacco leaf discus with special reference to peroxidase I. The effect cutting of inhibition of nucleic acids and protein synthesis. *Planta*, 32 : 1-13.

- Parish, R.W. (1972). The intracellular location of phenol oxidase and peroxidase in stem of spinach leaf (*Beta vulgaris* L.). *Z. Pflanzenphysiol.*, 66 : 176-188.
- Patra, H.K. and Mishra, D. (1979). Pyrophosphate, peroxidase and polyphenol oxidase activities during leaf development and senescence. *Plant Physiol.*, 63(2) : 318-323.
- Paul, K.G. (1963). Peroxidase. In : *The enzymes* (P.D. Boyer, H. Lardy, K. Myrsack eds.), Vol. 8, New York : Academic Press.
- Peive, Va V.; Ivanova, N.N. and Drobysheva, N.I. (1972). Nitrate reducing activity of plant peroxidase. *Fiziologiya Rastentii.*, 19 : 340-347 (In Russian).
- Pennon, P.J., Cacchin, R., Missod, J., Pinno, M., Ricard, J. and Terissre, M. (1970). Peroxidase associated with lentil ribosomes. *Phytochemistry*, 9 : 73-86.
- Petrochenko, Ye I. and Kolesnikov, P.A. (1966). Oxidation of of NADH<sub>2</sub> by subcellular fraction with participation of peroxidase and molecular oxygen. *Biokhimiya.*, 31 : 1117-1120.
- Pilet, P.E. and Gaspar, T.H. (1968). Le catabolisme *auvinique* *Monographles de physiologie vegetable.*, Vol.I, p.1-148 Paris Mason et.

- Pilet, P.E.; Lavanchy, P. and Sevhonkian (1970). Interaction between peroxidase, polyphenol oxidase and auxin oxidase. *Physiol Plant.* 23 : 800-804.
- Platee, H., Shannon, L. and Lew, J. (1964). In vivo peroxidase inhibition in bush bean leaves. *Nature*, 201 : 1328.
- Plesnicar, M.; Bonner, W.A.Jr and Storey, B.T. (1967). Peroxidase associated with higher plant mitochondria. *Plant Physiol.*, 42 : 366-370.
- Pratt, H.K. and Goeschl, J.D. (1969). Physiological roles of ethylene in plants. *Ann. Rev. Plant Physiol.*, 20 : 541-584.
- Raa, J. (1973). Cytochemical localization of peroxidase in plant cells. *Physiol. Plant.*, 28 : 132-133.
- Ray, P. M. (1962). Destruction of indoleacetic acid IV. Kinetics of enzyme oxidation. *Arch. Biochem. Biophys.* 96 : 199-209.
- Ridge, I. and Osborne, D.J. (1970). Hydroxyproline and peroxidase in cell walls of *Pisum sativum* : Regulation by ethylene. *J. Exptl. Botany*, 21 : 843-856.
- Robert, D.V. (1977). Enzyme kinetics, (Cambridge Chemistry texts) Cambridge University Press, pp.85-106.

- Rudolph, K. and Stahmann, M.A. (1964). Interaction of peroxidase and catalase between *Phaseolus vulgaris* and *Pseudomonas phaseolicola* (halo blight of bean). *Nature*, 204 : 474-475.
- Sadasivam, S. and Manickam, A. (1991). Biochemical Methods. *Wiley Eastern Limited, New Delhi, 2<sup>nd</sup> ed.* p.107.
- Sadasivam, S. and Manickam, A. (1991). *Biochemical methods*. Wiley Eastern Ltd., New Delhi, pp. 110-111.
- Sato, M. and Hasegawa, M. (1976). Phenolase of spinach leaves. *Phytochemistry*, 15 : 1845-1847.
- Schwenzer, R.N. and Harte, C. (1980). Protein content and activity of peroxidase and catalase in various developmental stages of leaves of *Antirrhinum majus*. Cultiver sippe 50 and the mutants *ambigua* and *graminifolia*. *Biol. Zentralbl.*, 99(3) : 275-295.
- Scrimgeour, K.G. (1977). Chemistry and control of enzyme reaction. Academic Press, London, New York, San Francisco. pp.105-123.
- Seevers, P.M. and Daly, J.M. (1970). Studies on wheat stem rust resistance controlled at the sr-6 locus I. The role of phenolic compounds. *Phytopathology*, 60 : 1322-1328.

- Seevers, P.M., Catedral, F.F. and Daly, J.M. (1971). The role of peroxidase enzymes in resistance to wheat stem rust disease. *Plant Physiol.*, 48 : 353-360.
- Sequeira, L. (1963). Growth regulators in plant disease. *Ann. Rev. Phytopathol.*, 1 : 5-30.
- Shannon, L.M.; Uritani, I and Imaseki, H. (1971). *De Novo* synthesis of peroxidase isozymes in sweet potato slices. *Plant Physiol.*, 47 : 493-498.
- Sheen, S.J. (1969). The distribution of polyphenols, chlorogenic acid oxidase and peroxidase in different plant parts of tobacco, *Nicotiana tabacum*. *Phytochemistry*, 8 : 1839-1847.
- Simons, TH.J. and Ross, A.F. (1970). Enhanced peroxidase activity associated with induction of resistance to tobacco mosaic virus in hypersensitive tobacco. *Phytopathol.*, 60 : 383-384.
- Srivastava, O.P. (1976). Studies of peroxidase isozymes from culture medium of peanut cell suspension. Ph.D. Thesis, University of Western Ontario, Canada.
- Srivastava, O.P. and Van Huystee, R.B. (1973). Evidence for close association of peroxidase, polyphenol oxidase, and IAA oxidase isozymes of peanut cell suspension culture medium. *Can. J. Bot.*, 51 : 2207-2215.

- Srivastava, O.P. and Van Huystee, R.B. (1977). An interrelationship among peroxidase, IAA oxidase, and polyphenol oxidase from peanut cells. *Can. J. Bot.*, 55 : 2630-2635.
- Stafford, H.A. and Bravinder Bree S. (1972). Peroxidase isozymes of first internodes of sorgham. *Plant Physiol.*, 49 : 950-956.
- Stahmann, M.A. (1967). Influence of host parasite interaction on proteins, enzymes and resistance. In : *The Dynamic Role of Molecular constituents in Plant-parasite interaction*. St. Paul Minneste, USA : Bruce Publ. Co., p.357-369.
- Stahmann, M.A. and Demoresy, D.M. (1972). Changes in isozymes of host and pathogen following some fungal infection. *Symb. Biol. Hung.*, 13 : 355-365.
- Tang, Y.W. and Bonner (1947). The enzymatic inactivation of IAA. *Arch. Biochem. Biophysics*, 13 : 11.
- Theorell, H. (1951). The iron containing enzymes B. catalases and peroxidases; Hydroperoxidases in summer Myrback (1951) II I, p.39.
- Tolbert, N.E. (1971). Microbodies-peroxisomes and glyoxysomes. *Ann. Rev. Plant Physiol.*, 22 : 45-74.
- Tomiyama, K. (1963). Physiology and biochemistry of disease resistance of plants. *Ann. Rev. Phytopathol.*, 1 : 295-316.

- Tuli, V. and Moyed, H.S. (1969). The role of 3-methylenoxinodole in auxin action. *J. Biol. Chem.*, 244 : 4916-4920.
- Upadhye, A.B., Dixit, G.B. and Karadge, B.A. (1986). Peroxidase in Crassulacean acid metabolism plants. Difficulty in determination of activity. *Plant Physiol. and Biochem.* 13(1) : 33-39.
- Vaughn, K.C. and Duke, S.O. (1981). Tentoxin-induced loss of plastidic polyphenol oxidase. *Physiol. Plant*, 53 : 421-428.
- Weston, T.J. (1969). The behaviour of peroxidase and polyphenol oxidase during the growth and senescence of tobacco leaves. *J. Exp. Bot.*, 20 : 53-63.
- Wood, K.R. and Barbara, D.J. (1971). Virus multiplication and peroxidase activity in leaves of cucumber (*Cucumis sativus* L.) cultivar systemically infected with the W. strain of Cucumber mosaic virus. *Physiol. Plant Pathol.*, 1 : 73-81.
- Wood, R.K.S (1967). *Physiological Plant Pathology. Oxford Edinburg : Black-well Scientific Publ.*
- Yang, S.E. (1967). Biosynthesis of ethylene. Ethylene formation from methional by horseradish peroxidase. *Arch. Biochem. Biophys.*, 122 : 431-487.