

DAFTAR PUSTAKA

Alfermann, W., Reinhard, E., (1985), Kultivierung Pflanzlicher Zellen in Bioreaktoren zur Naturstoffsgewinnung, BMFT-SEMINAR, Juellich, Germany.

Atipayakul, S., Jatisatiens, A., (1978) Planta Medica 55:661.

Barthlen, U., (1983) , Tesis Ph.D., Universitas Tuebingen.

Blunden, G. , Hardman , R. and Morrison, J.C., (1987), Quantitative Estimation of Diosgenin in Dioscorea Tuber by Densitometric Thin Layer Chromatography. In : Journal of Pharmaceutical Sciences, 56., No. 8 : 948-950.

Cohen, A.S. and Zalik, S., (1978), Magnesium Replacement by Polyamines in Higher Plant Cell-Free Polypeptidylalanine Synthesis, Phytochemistry, Vol. 17, Pergamon Press Printed, England : 113-118.

Carle, R., (1979), Untersuchungen zur Steroid Alkaloid und Sapogenin Fuehrung in Pflanzen und Zelkulturen der Gatung Solanum L, Dissertation.

Crocomo, O.J., Aquarone, E., Gottlieb, O.R., (1981), Biosynthesis of Secondary Products In Vitro. In : Thorpe, T.A., (Ed), Plant Tissue Culture, Methods and Applications in Agriculture, Academic Press, INC : 359-371.

Chandler , S. and Dodds, J., (1983), Solasodine Production in Rapidly Proliferating Tissue Cultures of Solanum Laciniatum Ait, Plant Cell Report, Department of Plant Biology, University of Brimingham, Brimingham.

Chandler, S. and Dodds, J., (1983), The Effect of Phosphate, Nitrogen and Sucrose on the Production of Phenolics and Solasodine in Callus Cultures of *Solanum Laciniatum*, Plant Cell Reports, Springer-Verlag, 2 :205-208.

Conner, A.J.,(1987), Differential Solasodine Accumulation in Photoautotrophic and Heterotrophic Tissue Cultures of *Solanum laciniatum*, Phytochemistry, Vol. 26. No. 10, Pergamon Journals Ltd : 2749-2750.

Constabel,F., (1990), *Planta Medica*, 56 : 422.

Dixon, R.A., (1985), Isolation and Maintenance of Callus and Cell Suspension Cultures. In : Dixon, R.A. (Ed), *Plant Cell Culture, a Practical Approach*, IRL Press, Oxford-Washington DC : 1-20.

Dougall, D.K., (1985), Chemicals From Plant Cell Cultures : Yield and Variation. In : Milton Zaitlin, Peter Day and Alexander Hollaender, (Ed) *Biotechnology in Plant Science, Relevance to Agriculture in the Eighties*, Academic Press : 8-34.

Emke, A. and Eilert, U., (1986), Steroidal Alkaloids in Tissue Cultures and Regenerated Plants of *Solanum dulcamara*, Institut fur Pharmazeutische Biologie der Technischen Universitat, Mendelsohnstr.

Ellis, B.E., (1988), Natural Product Reports, 5, : 581-612.

Fieser, L.F., Fieser, M., (1967), *Steroids*, Reinhold Company, New York.

Farmakope Indonesia, (1979), Edisi III, Departemen Kesehatan Republik Indonesia : XXXIII.
Funk, W., Dammann, V., Donnervert, (1992), Qualitatsicherung in der Analytical Chemistry, 342 : 769-778.

Fowler, M.W., (1986), Commercial Applications And Economic Aspects of Mass Plant Cell Culture. In : Mantell, S.H. and Smith, H., (Ed), Plant Biotechnology, Cambridge University Press : 8 - 34.

Funk, W., et al, (1992), Qualitatsscherung in der Analytische Chemie, VCH :5 - 39.

Harborne, J.B., (1987), Penuntun Cara Modern Menganalisa Tumbuhan, Terbitan kedua, Penerbit ITB, Bandung : 13, 155.

Holden, M.A., Holden, P.R. and Yeoman, M.M., (1989), Elicitation of Cell Culture. In : Robins, R.J. and Rhodes, M.J.C., (Ed), Manipulating Secondary Metabolism In Culture, Cambridge University Press :57 -63.

Indrayanto, G., (1983), Steroid and Triterpene in Zell Kulturen Untersuchningen mit Zellkulturen von Solanum laciniatum Ait, Solanum wrightii Bent und Costus speciosus (Koen) SM, Dissertation Universitat in Tuebingen : 6-83.

Isnaeni, (1986) , Optimalisasi Pertumbuhan Kalus dan Identifikasi Steroid dari Solanum mammosum L., Tesis, Universitas Airlangga.

Indrayanto, G., (1986), Prospek Kultur Jaringan Tanaman pada bidang Farmasi, buletin ISFI Jatim : 17.

Indrayanto, G., (1987), Produksi Metabolit Sekunder Dengan Teknik Kultur Jaringan Tanaman, Dalam Seminar Nasional Metabolit Sekunder, PAU Biotehnologi, Universitas Gajah Mada, Yogyakarta

Indrayanto, G., Rachman, A., (1989), Aplikasi Bioteknologi Sel Tanaman Untuk Bidang Farmasi. Suatu Tinjauan Tentang Prospek dan Keterbatasannya, Dalam Kumpulan Makalah Seminar Sehari Bioteknologi Ditinjau

Dari Berbagai Disiplin Ilmu, Universitas Airlangga, Surabaya.

Indrayanto, G., (1990), Analisis Pengaruh Komposisi Media Terhadap Jenis dan Kadar Senyawa Steroid dalam Kultur Jaringan Tanaman *Dioscorea* sp. dan *Agave* sp., Lembaga Penelitian Universitas Airlangga.

Instruction Manual, Shimadzu High Speed Thin Layer Chromato Scanner, Model CS - 930.

Kaneko Ko et al, (1976), Origin of Nitrogen in the Biosynthesis of Solanidine by *Veratrum grandiflorum*, Phytochemistry, Vol. 15, Pergamon Press Printed, England.

Kieslich, K., (1986), Production of Drugs by Microbial Biosynthesis and Biotransformation, Institute for Biotechnological Research Ltd., Braunschweig (Federal Republic of Germany : 888-892.

Kolodziej, H., (1989), Deutcher Apotheker Zeitung, 129 : 1385-1389.

Lawrence ,G.M.H.,(1979), Taxonomy of Vascular Plants, The Macmillan Company.

Manitto, P., (1981), Biosynthesis of Natural Products, Ellis Horwood Limited, England : 314-330.

Moore, A.L. and Akerman, K.E.O., (1984), Calerium and Plants Organelles, Plant Cells Environment, 7 : 423-429.

Mantell,S.H., Matthews, J.A.and McKee, R.A., (1985), Principles of Plant Biotechnology, An Introduction to Genetic Engineering in Plants, Black Well Scientific Publication, Oxford, London, Edinburgh : 186.

Misawa, M. (1985), Production of Useful Plant Metabolites. In : Fiechter, A., (Ed). Advances In Biochemical Engineering Biotechnology, Springer Verlag, New York : 59-84.

Matile, P., (1990), The Toxic Compartmen of Plant Cells. In : Nijkamp, J.J., et , (Eds), Progress in Plant Cellular and Molecular Biology, Kluwer Acad Press.

Mak, Y. and Doran, P.M., (1993), Effect of cell-cycle inhibition on synthesis of steroidal alkaloids by *Solanum aviculare* plant cells, Biotechnology letters, Vol. 15, No. 10 : 1031-1034.

Nigra, H.M., et al, (1987), Production of Solasodine by calli from different parts of *Solanum eleagnifolium* Cav. plant, Plant Cell Reports, Springer-Verlag : 135-137.

Nigra, H.M., et al, (1989), The influence of auxins, light and cell differentiation on solasodine production by *Solanum eleagnifolium* Cav. calli, Plant Cell report ; 230-233.

Nigra, H.M., et al, (1990), Effect of Carbon and Nitrogen sources on growth and solasodine production in batch suspension cultures of *Solanum eleagnifolium* Cav., Kluwer Academic Publishers, Netherlands : 55-60.

Noeraeni, P.E., (1992), Pengaruh Ion Kalsium Terhadap Kandungan Fitosteroid Kalus Agave Amaniensis, Skripsi, Fakultas Farmasi Universitas Airlangga.

Pierik, R.L.N., (1987), In Vitro Culture of Higher Plants, Martines Nighoff Publishers.

Philipson, J.D., (1990), Possibilities of Finding New Products from Plant Cell Cultures. In : Nijkamp, H.J., et al., (eds), Progress in Plant Cellular and

Molecular Biology, Kluwer Acad Publication.

Rokem, J.S., Tal, B. and Goldberg, I., (1985), Methods For Increasing Diosgenin Production By *Dioscorea* Cells In Suspension Cultures, Journal of Natural Products, 48.2 : 210-222.

Stahl, E., (1985), Analisis Obat Secara Kromatografi dan Mikroskopi, Penerbit ITB, Bandung : 1-8.

Schuebel, H., et al, (1989), Improved Production of Raucaffricine by Cultivated *Rauwolfia* Cell, Phytochemistry, 28.2 : 491-494.

Staba, E.J., (1991), Kuliah Tamu Pada Kursus Kultur Jaringan Tanaman, PAU Bioteknologi, Universitas Gajah Mada.

Silverstein, R.M., Bassler, G.C., Morrill, T., (1991) Spectroscopy of Organic Compounds, John Wiley & Sons New York.

Telek, L.H., Delpin and E. Cabanillas, (1971), *Solanum mammosum* as a Source of Solasodine in the Low land Tropics Economy Botany, 31 : 120-128.

The Merck Index, (1983), An Encyclopedia of Chemicals, Drugs and Biologicals, Merck and Co, Ind, USA : 1245.

Torsell, K.B.G., (1983), Natural Product Chemistry, A Mechanistic and Biosynthetic Approach to Secondary Metabolism, John Wiley and Sons Limited : 206-215.

Van Gelder, W.M.I., (1989), Ph.D. Thesis , Agriculture Wageningen University.

Varro, E.T., et al, Ed (1981), Pharmacognosy, Lea and

Febiger, Philadelphia : 164-194.

Willard, H.H., Lynne, L M J R, Frank A S J R, Instrumental Methods of Analysis, (1981), 6th Ed, D Van Nostrand Co, New York : 454-486; 515-627.

Whitaker, R., et al, (1986), Production of Secondary Metabolites in Plant Cell Cultures, In : Biogeneration of Aroma, American Chemical Society.

Wink, M., (1988), Physiology of the Accumulation of Secondary Metabolites With Special Reference to Alkaloids. In : Vasil, I.K., (Eds), Cell Cultures and Somatics Cell Genetics of Plants, Vol. 5, Academic Press.

Waldmann, T., Jeblick, W. and Kauss, H., (1988), Induced Net Ca^{2+} Uptake and Callose Biosynthesis In Suspension Cultured Plant Cells, Planta, 173 : 88-95.