

- 2nd Asia-Pacific Conference on Plant Cell and Tissue Culture, Beijing, China, 1996;
- International Conference on Biodiversity and Bioresources-Conservation and Utilization, Phuket, Thailand, 1997;
- 6th IBN SINA International Conference on Pure and Applied Heterocyclic Chemistry, Cairo, Egypt, 1997;
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- 37th IUPAC Congress, Frontiers in Chemistry, Berlin, Germany, 1999;
- International Conference on Natural Products, Kuala Lumpur, Malaysia, 2000;

PUBLICATIONS

1. C. Djerassi, J. Fishman, M. Gorman, J.P. Kutney and S.C. Pakrashi, *J. Am. Chem. Soc.*, 79, 1217-1222 (1957). Alkaloids Studies. XVI. Alkaloids of *Rauwolfia tetraphylla* L. The Structure of Tetraphylline and Tetraphyllicine.
2. M. Gorman, N. Neuss, C. Djerassi, J.P. Kutney and P.J. Scheuer, *Tetrahedron*, 1, 328-337 (1957). Alkaloid Studies - XIX. Alkaloids of Some Hawaiian *Rauwolfia* Species: The Structure of Sandwicine and its Interconversion with Ajmaline and Ajmalidine.
3. J.P. Kutney and R.A. Johnson, *Chem. and Ind.*, 1713-1714 (1961). Synthesis of 6-Aza Steroids: A Novel Class of Steroidal Hormones.
4. C. Djerassi, J.P. Kutney, M. Shamma, J.N. Shoolery and L.F. Johnson, *Chem. and Ind.*, 210-211 (1961). Alkaloid Studies. XXVII. The Structure of Skytanthine.
5. J.P. Kutney and R.C. Selby, *J. Org. Chem.*, 26, 2733-2737 (1961). Synthesis in the Pyridine Series. I. The Synthesis of 3,4-Dimethyl-5-Isopropylpyridine. A General Approach to 3,4,5-Trialkylated Pyridines.

6. C. Djerassi, J.P. Kutney and M. Shamma, *Tetrahedron*, 18, 183-188 (1962), *Alkaloid Studies - XXXII. Studies on Skytanthus acutus* Meyen. The Structure of the Monoterpenoid Alkaloid Skytanthine.
7. L.H. Zalkow, R.A. Ford and J.P. Kutney, *J. Org. Chem.*, 27, 3535-3539 (1962). The Oxidation of Maleopimaric Acid with Alkaline Permanganate.
8. J.P. Kutney, W. McCrae and A. By, *Can. J. Chem.*, 40, 982-990 (1962). Total Synthesis of Steroidal Derivatives. I. Synthesis of Hydrochrysene Analogues and Related Compounds.
9. J.P. Kutney and T. Tabata, *Can. J. Chem.*, 40, 1140-1145 (1962). Synthesis in the Pyridine Series. II. The Synthesis of New 3,4,5-Trialkylated Pyridines.
10. J.P. Kutney and T. Tabata, *Can. J. Chem.*, 41, 695-702 (1963). Synthesis in the Pyridine Series. III. The Synthesis of New 3,5-Diethyl-4-Substituted Pyridines. Steric Effects as an Aid to Synthesis.
11. J.P. Kutney, R.A. Johnson and I. Vlattas, *Can. J. Chem.*, 41, 613-619 (1963). Aza Steroids. II. Synthesis of 6-Aza Steroids - A Novel Class of Azaandrostane Analogues.
12. J.P. Kutney, J. Winter, W. McCrae and A. By, *Can. J. Chem.*, 41, 470-476 (1963). Total Synthesis of Steroidal Derivatives. II. Synthesis of Hydrochrysene Analogues and Related Compounds.
13. J.P. Kutney, I. Vlattas and G.V. Rao, *Can. J. Chem.*, 41, 958-965 (1963). Aza Steroids. III. Synthesis of 11-Aza Steroids - A Novel Class of Steroidal Sapogenin Analogues.
14. J.P. Kutney, J. Trotter, T. Tabata, A. Kerigan and N. Camerman, *Chem. and Ind.*, 648-649 (1963). The Chemistry of Catharanthine: Evidence for a Novel and Remarkable Acid Rearrangement.
15. J.P. Kutney and R.T. Brown, *Tetrahedron Letters*, 1815-1820 (1963). The Structure of Sitsirikine - A New Alkaloid from *Vinca rosea* Linn.
16. J.P. Kutney, *Steroids*, 2, 225-235 (1963). An NMR Study in the Steroidal Sapogenin Series. The Stereochemistry of the Spiroketal System.
17. J.P. Kutney, W. Cretney, T. Tabata and M. Frank, *Can. J. Chem.*, 42, 698-702 (1964). The Reaction of N-Bromosuccinimide on Some Alkyl Pyridines.
18. J.P. Kutney and A. By, *Can. J. Chem.*, 42, 591-598 (1964). Total Synthesis of Steroidal Derivatives. III. Synthesis of Hydrochrysene Analogues and Related Compounds.

19. J.P. Kutney, W. Cretney, G.R. Pettit and J.C. Knight, *Tetrahedron*, 20, 1999-2006 (1964). Structure and Stereochemistry of the Monobromotigogenins.
20. J.P. Kutney and I. Vlattas, *Steroids*, 4, 595-611 (1964). Aza Steroids. IV. Synthesis of 11-Aza Steroids in the Pregnane Series.
21. J.P. Kutney and E. Piers, *J. Am. Chem. Soc.*, 86, 953-955 (1964). The Chemistry of Cleavamine: A Novel Transannular Cyclization Relating to Biosynthesis of *Aspidosperma* Alkaloids.
22. J.P. Kutney, R.T. Brown and E. Piers, *J. Am. Chem. Soc.*, 86, 2286-2287 (1964). The Synthesis of a Vincadiformine-type Skeleton via a Novel Transannular Cyclization Reaction.
23. J.P. Kutney, R.T. Brown and E. Piers, *J. Am. Chem. Soc.*, 86, 2287-2288 (1964). The Synthesis of Iboga Alkaloids via a Novel Transannular Cyclization Reaction.
24. J.P. Kutney, R.T. Brown and E. Piers, *Lloydia*, 27, 447-455 (1964). Conversion of Iboga-type Alkaloids to the *Aspidosperma*-type skeleton.
25. J.P. Kutney, R.T. Brown and E. Piers, *Can. J. Chem.*, 43, 1545-1552 (1965). Some Aspects of the Chemistry of Catharanthine and Cleavamine.
26. A. Camerman, N. Camerman, J.P. Kutney, E. Piers and J. Trotter, *Tetrahedron Letters*, 637-642 (1965). Stereochemical Studies in the Transannular Cyclization Series. Conversion of Quebrachamine to *Aspidospermidine* and the Absolute Configuration of 7-Ethyl-5-desethyl*aspidospermidine*.
27. J.P. Kutney, A. By, T. Inaba and S.Y. Leong, *Tetrahedron Letters*, 2911-2918 (1965). A Totally Synthetic Entry into the *Veratrum* Alkaloid Skeleton.
28. J.P. Kutney and C. Gletsos, *Steroids*, 7, 67-78 (1966). Aza Steroids. VI. Synthesis of 6-Aza Pregnane Derivatives.
29. J.P. Kutney and R.T. Brown, *Tetrahedron*, 22, 321-336 (1966). The Structural Elucidation of Sitsirikine, Dihydrositsirikine and Isositsirikine. Three New Alkaloids from *Vinca rosea* Linn.
30. J.P. Kutney, G. Eigendorf and J.E. May, *Chem. Comm.*, 59-60 (1966). Optical Rotatory Dispersion Studies on Aza-Steroids.
31. J.P. Kutney, R.T. Brown and E. Piers, *Can. J. Chem.*, 44, 637-639 (1966). The Absolute Configuration of the Iboga Alkaloids.

32. J.P. Kutney, Editions du Centre National de la Recherche Scientifique (Colloques Internationaux), No. 144, 85-88 (1966). The Chemistry of Medicinally Important Products from *Vinca rosea* Linn.
33. J.P. Kutney, N. Abdurahman, P. Le Quesne, E. Piers and I. Vlattas, *J. Am. Chem. Soc.*, 88, 3656-3657 (1966). A New Total Synthesis of dl-Quebrachamine and dl-Aspidospermidine. A General Entry into the Aspidosperma Alkaloids.
34. J.P. Kutney, W.J. Cretney, P. Le Quesne, B. McKague and E. Piers, *J. Am. Chem. Soc.*, 88, 4756-4757 (1966). The Total Synthesis of dl-Dihydrocleavamine, dl-Carbomethoxydihydrocleavamine, dl-Coronaridine and dl-Dihydrocatharanthine. A General Entry into the Iboga and Vinca Alkaloids.
35. J.P. Kutney, I. Vlattas and G. Eigendorf, *Tetrahedron*, 23, 4587-4606 (1967). Mass Spectra of 6-Aza and 11-Aza Steroids.
36. J.P. Kutney, G. Eigendorf and J.E. Hall, *Tetrahedron*, 24, 845-857 (1968). Aza Steroids. VII. Synthesis of Ring A-Oxygenated 6-Aza Steroids.
37. J.P. Kutney and I.H. Rogers, *Tetrahedron Letters*, 761-766 (1968). Novel Triterpenes from Sitka Spruce (*Picea sitchensis* [Bong.] Carr).
38. J.P. Kutney, D.L. Dryer and T. Inaba, *J. Am. Chem. Soc.*, 90, 813-814, (1968). The Structure of Thamnosin. A Novel Dimeric Coumarin System.
39. J.P. Kutney, W.J. Cretney, J.R. Hadfield, E.S. Hall, V.r. Nelson and D.C. Wigfield, *J. Am. Chem. Soc.*, 90, 3566-3567 (1968). Studies on Indole Alkaloid Biosynthesis.
40. J.P. Kutney, K.K. Chan, A. Failli, J.M. Fromson, C. Gletsos and V.R. Nelson, *J. Am. Chem. Soc.*, 90, 3891-3893 (1968). The Total Synthesis of Some Monomeric Vinca Alkaloids---dl-Vincadine, dl-Vincaminoreine, dl-Vincaminorine, dl-Vincadiformine, dl-Minovine and Vincaminoridine.
41. J.P. Kutney, J.Beck, F. Bylsma and W.J. Cretney, *J. Am. Chem. Soc.*, 90, 4504-4505 (1968). Studies on the Synthesis of Dimeric Vinca Alkaloids.
42. J.P. Kutney, J. Cable, W.A.F. Gladstone, H.W. Hanssen, E.J. Torupka and W.D.C. Warnock, *J. Am. Chem. Soc.*, 90, 5332-5334 (1968). The Total Synthesis of Veratrum Alkaloids. I. Verarine.
43. J.P. Kutney, C. Ehret, V.R. Nelson and D.C. Wigfield, *J. Am. Chem. Soc.*, 90, 5929-5930 (1968). Studies on Indole Alkaloid Biosynthesis. II.
44. K.R. Adams, R. Bonnett, J. Hall and J.P. Kutney, *Chem. Comm.*, 456-457, (1969). Long-chain Al-Dicarboxylic Acids from Spores of *Equisetum* spp.

45. J.P. Kutney, R.N. Young and A.K. Verma, *Tetrahedron Letters*, 1845-1847 (1969). Novel Epoxides from *Thamnosma montana* Torr. and Frem.
46. J.P. Kutney, V.R. Nelson and D.C. Wigfield, *J. Am. Chem. Soc.*, 91, 4278-4279 (1969). Studies on Indole Alkaloid Biosynthesis. III.
47. J.P. Kutney, V.R. Nelson and D.C. Wigfield, *J. Am. Chem. Soc.*, 91, 4279-4280 (1969). Studies on Indole Alkaloid Biosynthesis. IV.
48. J.P. Kutney, I.H. Rogers and J.W. Rowe, *Tetrahedron*, 25, 3731-3751 (1969). The Neutral Triterpenes of the Bark of *Picea sitchensis* (Sitka Spruce).
49. J.P. Kutney, G. Eigendorf and I.H. Rogers, *Tetrahedron*, 25, 3753-3766 (1969). Mass Spectral Fragmentation Studies of Triterpenes Related to Serratenediol.
50. J.P. Kutney, E. Piers and R.T. Brown, *J. Am. Chem. Soc.*, 92, 1700-1704, (1970). Total Synthesis of Indole and Dihydroindole Alkaloids. I. Introduction and the Transannular Cyclization Approach.
51. J.P. Kutney, W.J. Cretney, J.R. Hadfield, E.S. Hall, and V.R. Nelson, *J. Am. Chem. Soc.*, 92, 1704-1707 (1970). Total Synthesis of Indole and Dihydroindole Alkaloids. II. The Partial Synthesis of Some Nine-membered Ring Intermediates from Catharanthine.
52. J.P. Kutney, R.T. Brown, E. Piers and J.R. Hadfield, *J. Am. Chem. Soc.*, 92, 1708-1712 (1970). Total Synthesis of Indole and Dihydroindole Alkaloids. III. The Transannular Cyclization of Carbomethoxydihydrocleavamine and Carbomethoxycleavamine Derivatives. An Approach to Vinca and Iboga Alkaloids.
53. J.P. Kutney, W.J. Cretney, P. Le Quesne, B. McKague and E. Piers, *J. Am. Chem. Soc.*, 92, 1712-1726 (1970). Total Synthesis of Indole and Dihydroindole Alkaloids. IV. The Total Synthesis of d1-Dihydrocleavamine, d1-Carbomethoxydihydrocleavamine, dl-Coronaridine, dl-Dihydrocatharanthine, and dl-Ibogamine. A General Entry into the Iboga and Vinca Alkaloids.
54. J.P. Kutney, N. Abdurahman, C. Gletsos, P. Le Quesne, E. Piers and I. Vlattas, *J. Am. Chem. Soc.*, 92, 1727-1735 (1970). Total Synthesis of Indole and Dihydroindole Alkaloids. V. The Total Synthesis of d1-Quebrachamine and d1-Aspidospermidine. A General Entry into the Aspidosperma Alkaloids.
55. J.P. Kutney, J.F. Beck, V.R. Nelson, K.L. Stuart and A.K. Bose, *J. Am. Chem. Soc.*, 92, 2174-2175 (1970). Studies on Indole Alkaloid Biosynthesis. V. The Role of Glycine.
56. J.P. Kutney, T. Inaba and D.L. Dreyer, *Tetrahedron*, 26, 3171-3184 (1970). Further Studies on Constituents of *Thamnosma montana* Torr. and Frem. The Structure of Thamnosin, A Novel Dimeric Coumarin System.

57. J.P. Kutney, W.D.C. Warnock and B. Gilbert, *Phytochemistry*, 9, 1877-1878 (1970). Pinocembrin 7-b-Neohesperidoside, A Flavanone Glycoside from *Sparattosperma vernicosum*.
58. J.P. Kutney and F. Bylsma, *J. Am. Chem. Soc.*, 92, 6090-6092 (1970). Studies on the Synthesis of Monomeric and Dimeric Vinca Alkaloids. The Total Synthesis of Isovelbanamine, Velbanamine, Cleavamine, 18b-Carbomethoxycleavamine and Catharanthine.
59. J.P. Kutney, J. Cable, G.V. Nair and W.D.C. Warnock, *Intra-Science Chem. Repts.* 4, 265-267 (1970). The Total Synthesis of Veratrum Alkaloids. II. Veratramine, Jervine and Veratrobazine.
60. J.P. Kutney, J.F. Beck, V.R. Nelson and R.S. Sood, *J. Am. Chem. Soc.*, 93, 255-257 (1971). Studies on Indole Alkaloid Biosynthesis. VI. The Eburnamine-Vincamine Alkaloids.
61. F.H. Allen, J.P. Kutney, J. Trotter and N.D. Westcott, *Tetrahedron Letters*, 283-286 (1971). The Structure and Absolute Stereochemistry of Cyclograndisolide and Epicyclograndisolide, Novel Triterpene Lactones from *Abies grandis*.
62. J.P. Kutney, G. Eigendorf, T. Inaba and D.L. Dreyer, *Org. Mass Spectrometry*, 5, 249-263 (1971). Mass Spectral Fragmentation Studies in Monomeric and Dimeric Coumarins.
63. J.P. Kutney, H.W. Hanssen and G.V. Nair, *Tetrahedron*, 27, 3323-3330 (1971). Studies on Some Electrophilic Substitution Reactions in the Furan Series. The Synthesis of 2,4-Disubstituted Furans.
64. J.P. Kutney and J.E. Hall, *Phytochemistry*, 10, 3287-3290 (1971). Constituents from *Equisetum telmateia*. The Structures of Equisporoside and Equisporol.
65. J.P. Kutney and H.W. Hanssen, *Phytochemistry*, 10, 3298-3302 (1971). 5,6,7-Trimethoxyflavone and 5,6,7,8-Tetramethoxyflavone from *Zeyhera tuberculosa*.
66. J.P. Kutney, F.K. Klein, G. Knowles and K.L. Stuart, *Tetrahedron Letters*, 3263-3266 (1971). Alkaloids from Croton Species. XI. Peptidyl Compounds from *C. humilis* L.
67. J.P. Kutney, J.F. Beck, C. Ehret, G. Poulton, R.S. Sood and N.D. Westcott, *Bioorganic Chemistry*, 1, 194-206 (1971). Studies on Indole Alkaloid Biosynthesis.
68. J.P. Kutney, N.D. Westcott, F.H. Allen, N.W. Isaacs, O. Kennard and W.D.S. Motherwell, *Tetrahedron Letters*, 3463-3466 (1971). The Structure of Abieslactone.

69. J.P. Kutney, F.K. Klein, G. Eigendorf, D. McNeill and K.L. Stuart, *Tetrahedron Letters*, 4973-4975 (1971). Alkaloids from Croton species. XII. Glutarimide Peptides from *C. humilis* L.
70. J.P. Kutney, J.F. Beck, N.J. Eggers, H.W. Hanssen, R.S. Sood and N.D. Westcott, *J. Am. Chem. Soc.*, 93, 7322-7324 (1971). Studies on Indole Alkaloid Biosynthesis. VII. The Later Stages of *Aspidosperma* Alkaloid Biosynthesis.
71. J.P. Kutney, *J. Heterocyclic Chem.*, 9, Suppl. Issue, S-1 - S-17 (1972). Studies on Indole Alkaloid Biosynthesis.
72. J.P. Kutney, A.K. Verma and R.N. Young, *Tetrahedron*, 28 5091-5104 (1972). Studies on Constituents of *Thamnosma montana* Torr. and Frem. The Structure of Thamnosmin, a Novel Coumarin Epoxide.
73. J.P. Kutney, D. S. Grierson, G. D. Knowles, N. D. Westcott and I.H. Rogers, *Tetrahedron*, 29, 13-20 (1973). Studies on Constituents of *Abies grandis*. The Structures and Absolute Stereochemistry of Cyclograndisolide and Epicyclograndisolide, Novel Cyclopropane Triterpene Lactones.
74. J.P. Kutney, The Total Synthesis of Indole Alkaloids in, "The Alkaloids". MTP International Review of Science, (1973), p.27-104.
75. J.P. Kutney, A.K. Verma and R.N. Young, *Tetrahedron*, 29, 2645-2660 (1973). Biosynthetic Studies in the Coumarin Series. I. Studies in Plants of *Thamnosma montana* Torr. and Frem. The Role of Mevalonate.
76. J.P. Kutney, A.K. Verma and R.N. Young, *Tetrahedron*, 29, 2661-2671 (1973). Biosynthetic Studies in the Coumarin Series. II. Studies in Plants of *Thamnosma montana* Torr. and Frem. The Role of Acetate and Glycine.
77. J.P. Kutney, P.J. Salisbury and A.K. Verma, *Tetrahedron*, 29, 2673-2681 (1973). Biosynthetic Studies in the Coumarin Series. III. Studies in Tissue Cultures of *Thamnosma montana* Torr. and Frem. The Role of Mevalonate.
78. C.A. Bear, W.R. Cullen, J.P. Kutney, V.E. Ridauro, J. Trotter and A. Zonarotti, *J. Am. Chem. Soc.*, 95, 3058-3060 (1973). Studies in the Dihydropyridine Series. I. Novel and Stable Complexes of N-Methyl-3-ethyl-1,2-dihydropyridine and N-Methyl-3-ethyl-1,6-dihydropyridine.
79. J.P. Kutney, K. Fuji, A.M. Treasurywala, J. Fayos, J. Clardy, A.I. Scott and C.C. Wei, *J. Am. Chem. Soc.*, 95, 5407-5409 (1973). The Structure and Absolute Configuration of (+)-Coronaridine Hydrobromide. A Comment on the Absolute Configuration of the Iboga Alkaloids.

80. J.P. Kutney, J.F. Beck and G.B. Fuller, *Heterocycles*, 1, 5-10 (1973). Studies on Indole Alkaloid Biosynthesis. VIII. The Later Stages of the Biosynthesis of Apparicine.
81. J.P. Kutney and N.J. Eggers, *Heterocycles*, 1, 11-16 (1973). Studies on Indole Alkaloid Biosynthesis. IX. The Later Stages of Iboga Alkaloid Biosynthesis.
82. K.L. Stuart, D. McNeill, J.P. Kutney, G. Eigendorf and F.K. Klein, *Tetrahedron*, 29, 4071-4075 (1973). Isolation and Synthesis of Glutamine and Glutarimide Derivatives from *Croton humilis*.
83. J.P. Kutney, G. Eigendorf, R.B. Swingle, G.D. Knowles, J.W. Rowe and B.A. Nagasampagi, *Tetrahedron Letters*, 3115-3118 (1973). Novel Triterpenes from Western White Pine (*Pinus monticola* Dougl.) Bark.
84. J.P. Kutney, I.H. Sanchez and T.H. Yee, *Org. Mass Spectrom.*, 8, 129-146 (1974). Mass Spectral Fragmentation Studies in Usnic Acid and Related Compounds.
85. J.P. Kutney, G. Cook, J. Cook, I. Itoh, J. Clardy, J. Fayos, P. Brown, and G.H. Svoboda, *Heterocycles*, 2, 73-78 (1974). Studies on Vinca Alkaloids. The Structure of Vincarodine.
86. J.P. Kutney, G.B. Fuller, R. Greenhouse and I. Itoh, *Synth. Commun.*, 4, 183-187 (1974). Selective Debenzylation of Quaternary Salts. The Benzyl Group as an Excellent Protecting Group for Basic Nitrogen Compounds.
87. J.P. Kutney, R. Greenhouse, and V.E. Ridaura, *J. Am. Chem. Soc.*, 96, 7364-7365 (1974). Studies in the Dihydropyridine Series. II. Unstable Dihydropyridines Generated from their Chromium Complexes and their C-alkylation.
88. J.P. Kutney and A.H. Ratcliffe, *Synth. Commun.*, 5, 47-52 (1975). A Novel and Mild Procedure for Preparation of Cyclic Carbonates. An Excellent Protecting Group for Vicinal Diols.
89. J.P. Kutney and D.S. Grierson, *Heterocycles*, 3, 171-177 (1975). An Improved Synthesis of the Pyridocarbazole Indole Alkaloid Olivacine.
90. J.P. Kutney and G.B. Fuller, *Heterocycles*, 3, 197-204 (1975). The Total Synthesis of Akuammicine and 16-Epi-Stemmadenine. The Absolute Configuration of Stemmadenine.
91. J.P. Kutney, J. Cook, K. Fuji, A.M. Treasurywala, J. Clardy, J. Fayos and H. Wright, *Heterocycles*, 3, 205-212 (1975). Studies on the Synthesis of Bisindole Alkaloids. The Synthesis, Structure and Absolute Configuration of 18'-epi-4'-deoxo-4'-epivinblastine, 18'-decarbomethoxy-18'-epi-4'-epivinblastine and 18'-epi-3',4'-dehydrovinblastine.

92. J.P. Kutney and R. Greenhouse, *Synth. Commun.*, 5, 119-124 (1975). The Protection and Deprotection of the Pyridine Nitrogen.
93. J.P. Kutney, A. By, J. Cable, W.A.F. Gladstone, T. Inaba, S.Y. Leong, P. Roller, E.J. Torupka and W.D.C. Warnock, *Can. J. Chem.*, 53, 1775-1795 (1975). Synthetic Studies in the Veratrum Alkaloid Series. I. Introduction and the Total Synthesis of Appropriate C-Nor-D-Homo Steroid Derivatives.
94. J.P. Kutney, J. Cable, W.A.F. Gladstone, H.W. Hanssen, G.V. Nair, E.J. Torupka and W.D.C. Warnock, *Can. J. Chem.*, 53, 1796-1817 (1975). Synthetic Studies in the Veratrum Alkaloid Series. II. The Total Synthesis of Verarine, Veratramine, Jervine and Veratrobazine.
95. J.P. Kutney, K.K. Chan, A. Failli, J.M. Fromson, C. Gletsos, A. Leutwiler, V.R. Nelson and J.P. de Souza, *Helv. Chim. Acta*, 58, 1648-1671 (1975). Total Synthesis of Indole and Dihydroindole Alkaloids. VI. The Total Synthesis of Some Monomeric Vinca Alkaloids: d1-Vincadine, d1-Vincaminoreine, dl-Vincaminorine, d1-Vincadiformine, d1-Minovine and d1-Vincaminoridine.
96. J.P. Kutney and F. Bylsma, *Helv. Chim. Acta*, 58, 1672-1689 (1975). Total Synthesis of Indole and Dihydroindole Alkaloids. VII. The Total Synthesis of Isovelbanamine, Velbanamine, Cleavamine, 18b-Carbomethoxycleavamine and Catharanthine.
97. J.P. Kutney, J. Beck, F. Bylsma, J. Cook, W.J. Cretney, K. Fuji, R. Imhof and A.M. Treasurywala, *Helv. Chim. Acta*, 58, 1690-1719 (1975). Total Synthesis of Indole and Dihydroindole Alkaloids. VIII. Studies on the Synthesis of Bisindole Alkaloids in the Vinblastine-Vincristine Series. The Chloroindolenine Approach.
98. J.P. Kutney, D.E. Gregonis, R. Imhof, I. Itoh, E. Jahngen, A.I. Scott and W.K. Chan, *J. Am. Chem. Soc.*, 97, 5013-5015 (1975). Absolute Stereochemistry of the Bisindole Alkaloids of the Vinblastine Type. Circular Dichroism Studies.
99. J.P. Kutney, A.H. Ratcliffe, A.M. Treasurywala and S. Wunderly, *Heterocycles*, 3, 639-649 (1975). Studies on the Synthesis of Bisindole Alkaloids. II. The Synthesis of 3',4'-Dehydrovinblastine, 4'-Deoxo-vinblastine and Related Analogues. The Biogenetic Approach.
100. J. Couceiro Simoes, B. Gilbert, W.J. Cretney, M. Hearn and J.P. Kutney, *Phytochemistry*, 15, 543-544 (1976). The Alkaloids of *Aspidosperma cuspa*. 16-Epi-Isositsirikine. A New Indole Base.
101. J.P. Kutney, *Heterocycles*, 4, 169-196 (1976). Studies on Indole Alkaloid Biosynthesis. Part I. Alkaloids Containing the Normal Tryptophan Side Chain. The Later Stages.

102. J.P. Kutney, *Heterocycles*, 4, 429-451 (1976). Studies on Indole Alkaloid Biosynthesis. Part II. Alkaloids Lacking the Normal Tryptophan Side Chain.
103. J.P. Kutney, T. Hibino, E. Jahngen, T. Okutani, A.H. Ratcliffe, A.M. Treasurywala, and S. Wunderly, *Helv. Chim. Acta*, 59, 2858-2882 (1976). Total Synthesis of Indole and Dihydroindole Alkaloids. IX. Studies on the Synthesis of Bisindole Alkaloids in the Vinblastine-Vincristine Series. The Biogenetic Approach.
104. J.P. Kutney, J. Balsevich, G.H. Bokelman, T. Hibino, I. Itoh and A.H. Ratcliffe, *Heterocycles*, 4, 997-1005 (1976). Studies on the Synthesis of Bisindole Alkaloids. III. The Synthesis of Leurosine and 3'-Hydroxy-vinblastine.
105. J.P. Kutney, G.H. Bokelman, M. Ichikawa, E. Jahngen, A.V. Joshua, P.H. Liao and B.R. Worth, *Heterocycles*, 4, 1267-1273 (1976). Studies on the Synthesis of Bisindole Alkaloids. IV. Novel Oxygenated Catharanthine Derivatives.
106. J.P. Kutney and I.H. Sanchez, *Can. J. Chem.*, 54, 2795-2803 (1976). Studies in the Usnic Acid Series. I. The Condensation of (+)-Usnic Acid with Aliphatic and Aromatic Amines.
107. J.P. Kutney, E. Jahngen and T. Okutani, *Heterocycles*, 5, 59-66 (1976). Studies on the Synthesis of Bisindole Alkaloids. V. The Hydrazine Method.
108. J.P. Kutney, J. Balsevich and G.H. Bokelman, *Heterocycles*, 4, 1377-1385 (1976). Studies on the Synthesis of Bisindole Alkaloids. VI. Novel Lactam Derivatives in the Vinblastine Series.
109. J.P. Kutney and B.R. Worth, *Heterocycles*, 4, 1777-1782 (1976). Studies on the Synthesis of Bisindole Alkaloids. VII. Stereochemistry and Alternative Total Synthesis of Leurosine.
110. J.P. Kutney, I.H. Sanchez and T. Yee, *Can. J. Chem.*, 54, 3713-3720 (1976). Studies in the Usnic Acid Series. II. The Condensation of (+)-Usnic Acid with Hydroxylamine.
111. J.P. Kutney, I.H. Sanchez and T. Yee, *Can. J. Chem.*, 54, 3721-3731 (1976). Studies in the Usnic Acid Series. III. The Base Catalyzed Usnic Acid-Isousnic Acid Rearrangement. The Synthesis of (+)-Isousnic Acid.
112. J.P. Kutney, A.V. Joshua and P.H. Liao, *Heterocycles*, 6, 297-304 (1977). Studies on the Synthesis of Bisindole Alkaloids. VIII. The Coupling of Several 3a, 4a-Substituted Catharanthine Derivatives with Vindoline.
113. J.P. Kutney, R.W. Brookes, C.C. Fortes, Y. Murakami, A. Preston and Y. Ueda, *J. Am. Chem. Soc.*, 99, 963-964 (1977). Synthetic Studies in the Veratrum Alkaloid Series. The Total Synthesis of C18-Functionalized C-Nor-D-Homo Steroid Derivatives - Valuable Intermediates in the Total Synthesis of Veratrum Alkaloids.

114. J.P. Kutney, C.C. Fortes, T. Honda, Y. Murakami, A. Preston and Y. Ueda, *J. Am. Chem. Soc.*, 99, 964-966 (1977). Synthetic Studies in the Veratrum Alkaloid Series. The Total Synthesis of Verticine.
115. J.P. Kutney, The Total Synthesis of Indole Alkaloids in, "The Total Synthesis of Natural Products", Vol. 3, John Wiley, p. 273-438 (1977).
116. J.P. Kutney, I.H. Sanchez and T. Yee, *Can. J. Chem.*, 55, 1073-1078 (1977). Studies in the Usnic Acid Series. IV. The Base Catalyzed Usnic Acid-Isousnic Acid Rearrangement. Part II. An Improved Synthesis of (+)-Isousnic Acid.
117. J.P. Kutney and I.H. Sanchez, *Can. J. Chem.*, 55, 1079-1084 (1977). Studies in the Usnic Acid Series. V. The Base Catalyzed Usnic Acid-Isousnic Acid Rearrangement. Part III. (-)-Usnic Acid Isomethoxide Monoacetate.
118. J.P. Kutney and I.H. Sanchez, *Can. J. Chem.*, 55, 1085-1090 (1977). Studies in the Usnic Acid Series. VI. The Preparation of Some Ether Derivatives of (+)-Usnic Acid.
119. J.P. Kutney, *Lloydia*, 40, 107-126 (1977). Studies on the Total Synthesis of Bisindole Alkaloids in the Vinblastine-Vincristine Series.
120. J.P. Kutney, J.D. Leman, P.J. Salisbury, I.H. Sanchez, T. Yee and R.J. Bandoni, *Can. J. Chem.*, 55, 2336-2352 (1977). Studies in the Usnic Acid Series. VII. The biodegradation of (+)-usnic acid by a *Pseudomonas* species. Isolation, structure determination and synthesis of (+)-6-desacetylusnic acid.
121. J.P. Kutney, K.K. Chan, W.B. Evans, Y. Fujise, T. Honda, F.K. Klein and J.P. de Souza, *Heterocycles*, 6, 435-442 (1977). Studies on the Synthesis of Bisindole Alkaloids. IX. The Synthesis of Novel Vindoline Derivatives.
122. J.P. Kutney, W.B. Evans and T. Honda, *Heterocycles*, 6, 443-448 (1977). Studies on the Synthesis of Bisindole Alkaloids. X. The Synthesis of Novel Vinblastine Derivatives.
123. J.P. Kutney and B.R. Worth, *Heterocycles*, 6, 905-910 (1977). Studies on the Synthesis of Bisindole Alkaloids. XI. Novel Isomers of Vinblastine.
124. J.P. Kutney, W.H. Baarschers, O. Chin, Y. Ebizuka, L. Hurley, J.D. Leman, P.J. Salisbury, I.H. Sanchez and T. Yee, *Can. J. Chem.*, 55, 2930-2940 (1977). Studies in the Usnic Acid Series. VIII. The Biodegradation of (+)-Usnic Acid by *Mortierella isabellina*.
125. J.P. Kutney, G.H. Bokelman, M. Ichikawa, E. Jahngen, A.V. Joshua, P.H. Liao and B.R. Worth, *Can. J. Chem.*, 55, 3227-3234 (1977). Total Synthesis of Indole and

Dihydroindole Alkaloids. X. The Preparation of Novel Oxygenated Catharanthine Derivatives.

126. J.P. Kutney, A.V. Joshua, P.H. Liao and B.R. Worth, *Can. J. Chem.*, 55, 3235-3242 (1977). Total Synthesis of Indole and Dihydroindole Alkaloids. XI. The Synthesis of Leurosine and the Coupling of 3a, 4a-Substituted Catharanthine Derivatives with Vindoline.

127. J.P. Kutney, *Bioorganic Chemistry*, 6, 3, 371-391 (1977). Synthetic Studies in the Veratrum Alkaloid Series. The Total Synthesis of Verarine, Veratramine, Jervine, Veratrobazine and Verticine.

128. J.P. Kutney, *Heterocycles*, 7, 593-614 (1977). Dihydropyridines in Biosynthesis and Synthesis.

129. J.P. Kutney, *Heterocycles*, 8, 813-830 (1977). Studies in Indole Alkaloid Synthesis. A General Synthetic Route to 2-Acylindole Alkaloids and Related Compounds.

130. J.P. Kutney, *Synthetic Studies in Indole Alkaloids. Biogenetic Considerations*, in "Bioorganic Chemistry", Vol. II, Academic Press, p. 197-228 (1978).

131. J.P. Kutney, J. Balsevich, G.H. Bokelman, T. Hibino, T. Honda, I. Itoh, A.H. Ratcliffe and B.R. Worth, *Can. J. Chem.*, 56, 62-70 (1978). Total Synthesis of Indole and Dihydroindole Alkaloids. XII. Selective Functionalization of Various Bisindoles. Efficient Syntheses of Leurosine and Related Bisindole Alkaloid Derivatives.

132. J.P. Kutney, Y. Ebizuka, P.J. Salisbury, C-K. Wat and G.H.N. Towers, *Phytochemistry*, 17, 49-52 (1978). An Inducible Hydrolase from *Mortierella isabellina* (Basidiomycetes). The Deacylation of (+)-Usnic Acid.

133. J.P. Kutney, G.K. Eigendorf, H. Matsue, A. Murai, K. Tanaka, W.L. Sung, K. Wada, and B.R. Worth, *J. Am. Chem. Soc.*, 100, 938-943 (1978). The Total Synthesis of Dregamine and Epidregamine. A General Route to 2-Acylindole Alkaloids.

134. J.P. Kutney, J. Balsevich, T. Honda, P.H. Liao, H.P.M. Thiellier and B.R. Worth, *Heterocycles*, 9, 201-206 (1978). Studies in the Synthesis of Bisindole Alkaloids. XII. Derivatives of Vincristine.

135. J.P. Kutney, T. Honda, A.V. Joshua, N.G. Lewis and B.R. Worth, *Helv. Chim. Acta*, 61, 690-700 (1978). Total Synthesis of Indole and Dihydroindole Alkaloids. XIII. Further Chemistry of Catharanthine.

136. J.P. Kutney, J. Balsevich and B.R. Worth, *Heterocycles*, 9, 493-497 (1978). Studies on the Synthesis of Bisindole Alkaloids. XIII. A Synthesis of Catharine.

137. J.P. Kutney, U. Bunzli-Trepp, K.K. Chan, J.P. de Souza, Y. Fujise, T. Honda, J. Katsube, F.K. Klein, A. Leutwiler, S. Morehead, M. Rohr and B.R. Worth, *J. Am. Chem. Soc.*, 100, 4220-4224 (1978). Total Synthesis of Indole and Dihydroindole Alkaloids. XIV. A Total Synthesis of Vindoline.
138. J.P. Kutney, J. Balsevich, R. Carruthers, A. Markus, M.J. McGrath, R.N. Young and B.R. Worth, *Bioorganic Chemistry*, 7, 289-302 (1978). The Chemistry of Thujone. I. Synthesis of Insect Juvenile Hormone Analogs via Wittig Coupling.
139. K.L. Stuart, J.P. Kutney, T. Honda, N.G. Lewis and B.R. Worth, *Heterocycles*, 9, 647-652 (1978). The Biosynthesis of Vindoline using Cell Free Extracts from Mature *Catharanthus roseus* Plants.
140. J.P. Kutney, *J. Heterocycl. Chem.*, 15, Suppl. Issue, S-59 - S-68 (1978). Studies on the Synthesis of Clinically Important Anti-Tumor Agents.
141. K.L. Stuart, J.P. Kutney, and B.R. Worth, *Heterocycles*, 9, 1015-1022 (1978). Studies on the Synthesis of Bisindole Alkaloids. XIV. Enzyme Catalysed Formation of Leurosine.
142. J.P. Kutney, U. Bunzli-Trepp, T. Honda, J. Katsube and B.R. Worth, *Helv. Chim. Acta*, 61, 1554-1564 (1978). Total Synthesis of Indole and Dihydroindole Alkaloids. XV. Further Chemistry of Vindoline.
143. K.L. Stuart, J.P. Kutney, T. Honda and B.R. Worth, *Heterocycles*, 9, 1391-1395 (1978). Studies on the Biosynthesis of Bisindole Alkaloids. The Final Stages in Biosynthesis of Vinblastine, Leurosine and Catharine.
144. K.L. Stuart, J.P. Kutney, T. Honda and B.R. Worth, *Heterocycles*, 9, 1419-1427 (1978). Intermediacy of 3',4'-Dehydrovinblastine in the Biosynthesis of Vinblastine-type Alkaloids.
145. J.P. Kutney, J. Balsevich, T. Honda, P.H. Liao, H.P.M. Thiellier and B.R. Worth, *Can. J. Chem.*, 56, 2560-2566 (1978). Total Synthesis of Indole and Dihydroindole Alkaloids. XVI. Derivatives of Vinblastine and Vincristine: Change of Functionality in the Vindoline Unit.
146. J.P. Kutney, J. Balsevich and B.R. Worth, *Heterocycles*, 11, 69-73 (1978). Studies on the Synthesis of Bisindole Alkaloids. XV. A Synthesis of Vinamidine (Catharinine).
147. J.P. Kutney, R.A. Badger, J.F. Beck, H. Bosshardt, F.S. Matough, V.E. Ridaura-Sanz, Y.H. So, R.S. Sood and B.R. Worth, *Can. J. Chem.*, 57, 289-299 (1979). Dihydropyridines in Synthesis and Biosynthesis. I. Secodine and Precursors of Dehydrosecodine.

148. J.P. Kutney, R.A. Badger, W.R. Cullen, R. Greenhouse, M. Noda, V.E. Ridaura-Sanz, Y.H. So, A. Zanarotti and B.R. Worth, *Can. J. Chem.*, **57**, 300-303 (1979). Dihydropyridines in Synthesis and Biosynthesis. II. Stable Tricarbonylchromium (0) Complexes.
149. J.P. Kutney, J. Balsevich and B.R. Worth, *Can. J. Chem.*, **57**, 1682-1690 (1979). Total Synthesis of Indole and Dihydroindole Alkaloids. XVII. The Total Synthesis of Catharine and Vinamidine (Catharinine).
150. J.P. Kutney, M. Noda and B.R. Worth, *Heterocycles*, **12**, 1269-1273 (1979). Studies in the Dihydropyridine Series. III. Piperideine Synthons by Nucleophilic Substitution to Dihydropyridinetricarbonylchromium (0) Complexes.
151. J.P. Kutney, T.C.W. Mak, D. Mostowicz, J. Trotter and B.R. Worth, *Heterocycles*, **12**, 1517-1521 (1979). Studies in the Dihydropyridine Series. IV. Bipiperidyl Synthons via Coupling of Dihydropyridine-tricarbonylchromium (0) Complexes.
152. J.P. Kutney, M.J. McGrath, R.N. Young and B.R. Worth, *Can. J. Chem.*, **57**, 3145-3154 (1979). The Chemistry of Thujone. II. Insect Juvenile Hormone Analogues via Acid Dianion Coupling. The β Lactone Route.
153. J.P. Kutney, T. Honda, P.M. Kazmaier, N.J. Lewis and B.R. Worth, *Helv.Chim. Acta*, **63**, 366-374 (1980). Total Synthesis of Indole and Dihydroindole Alkaloids. XVIII. Isomers and Analogues of Vinblastine.
154. J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart, B.R. Worth, W.G.W. Kurz, K.B. Chatson and F. Constabel, *Heterocycles*, **14**, 765-768 (1980). Alkaloid Production in *Catharanthus roseus* Cell Cultures. III. Catharanthine and Other Alkaloids from the 200GW Cell Line.
155. J.P. Kutney, J. Trotter, R.A. Paupit, B.R. Worth and P. Sierra, *Heterocycles*, **14**, 1309-1311 (1980). Raucubaine, A New Type of Indole Alkaloid from *Rauwolfia salicifolia* Griseb.
156. J.P. Kutney, M.H. Beale, P.J. Salisbury, R.D. Sindelar, K.L. Stuart, B.R. Worth, P.M. Townsley, W.T. Chalmers, D.J. Donnelly, K. Nilsson and G.G. Jacoli, *Heterocycles*, **14**, 1465-1467 (1980). Triptidolide from Tissue Culture of *Tripterygium wilfordii*.
157. J.P. Kutney, L.S.L. Choi and B.R. Worth, *Phytochemistry*, **19**, 2083-2087 (1980). Radioimmunoassay Determination of Vindoline.
158. J.P. Kutney, A. Horinaka, R.S. Ward and B.R. Worth, *Can. J. Chem.*, **58**, 1829-1838 (1980). Studies on the Total Synthesis of Bisindole Alkaloids within the Voacamine Family.

159. W.G.W. Kurz, K.B. Chatson, F. Constabel, J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart and B.R. Worth, *Helv. Chim. Acta*, 63, 1891-1896 (1980). Alkaloid Production in *Catharanthus roseus* Cell Cultures. IV. Characterization of the 953 Cell Line.
160. J.P. Kutney, J. Balsevich and P. Grice, *Can. J. Chem.*, 58, 2641-2644 (1980). The Chemistry of Thujone. III. Thujone as a Chiral Synthone for the Preparation of Sesquiterpenes. Synthesis of (+)-b-cyperone.
161. W.G.W. Kurz, K.B. Chatson, F. Constabel, J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart and B.R. Worth, *Phytochemistry*, 19, 2583-2587 (1980). Alkaloid Production in *Catharanthus roseus* Cell Cultures. Initial Studies on Cell Lines and Their Alkaloid Content.
162. J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart, B.R. Worth, W.G.W. Kurz, K.B. Chatson and F. Constabel, *Phytochemistry*, 19, 2589-2595 (1980). Alkaloid Production in *Catharanthus roseus* Cell Cultures. Isolation and Characterization of Alkaloids from One Cell Line.
163. J.P. Kutney, *Heterocycles*, 15, 1405-1431 (1981). Studies on Plant Tissue Cultures.
164. J.P. Kutney, M.H. Beale, P.J. Salisbury, K.L. Stuart, B.R. Worth, P.M. Townsley, W.T. Chalmers, K. Nilsson and G.G. Jacoli, *Phytochemistry*, 20, 653-657 (1981). Isolation and Characterization of Natural Products from Plant Tissue Cultures of *Maytenus buchananii*.
165. J.P. Kutney, B. Aweryn, L.S.L. Choi, P. Kolodziejczyk, W.G.W. Kurz, K.B. Chatson and F. Constabel, *Heterocycles*, 16, 1169-1171 (1981). Alkaloid Production in *Catharanthus roseus* Cell Cultures. IX. Biotransformation Studies with 3',4'-Dehydrovinblastine.
166. W.G.W. Kurz, K.B. Chatson, F. Constabel, J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart and B.R. Worth, *Planta Medica*, 42, 22-31 (1981). Alkaloid Production in *Catharanthus roseus* Cell Cultures. VIII. Characterisation of the PRL #200 Cell Line.
167. J.P. Kutney, G. Eigendorf, B.R. Worth, J.W. Rowe, A.H. Conner and B.A. Nagasampagi, *Helv. Chim. Acta*, 64, 1183-1207 (1981). New Triterpenes from the Bark of Western White Pine (*Pinus monticola* Doug.).
168. J.P. Kutney, M. Noda, N.G. Lewis, B. Monteiro, D. Mostowicz and B.R. Worth, *Heterocycles*, 16, 1469-1472 (1981). Studies in the Dihydropyridine Series. V. Synthesis of Pyridocarbazole Alkaloids: Olivacine and Guatambuine.
169. J.P. Kutney, M. Singh, G. Hewitt, P.J. Salisbury, B.R. Worth, J.A. Servizi, D.W. Martens and R.W. Gordon, *Can. J. Chem.*, 59, 2334-2341 (1981). Studies Related to

Biological Detoxification of Kraft Pulp Mill Effluent. I. The Biodegradation of Dehydroabietic Acid with *Mortierella isabellina*.

170. J.P. Kutney, R.D. Sindelar and K.L. Stuart, *J. Chromatogr.*, 214, 152-155 (1981). Rapid Thin-layer Chromatography Assay of Triptolide Using Fluorimetric Detection.

171. J.P. Kutney, G.M. Hewitt, T. Kurihara, P.J. Salisbury, R.D. Sindelar, K.L. Stuart, P.M. Townsley, W.T. Chalmers and G.G. Jacoli, *Can. J. Chem.*, 59, 2677-2683 (1981). Cytotoxic Diterpenes Triptolide, Triptolide, and Cytotoxic Triterpenes from Tissue Cultures of *Tripterygium wilfordii*.

172. F. Constabel, S. Rambold, K.B. Chatson, W.G.W. Kurz and J.P. Kutney, *Plant Cell Reports*, 1, 3-5 (1981). Alkaloid Production in *Catharanthus roseus* (L.) G. Don. VI. Variation in Alkaloid Spectra of Cell Lines Derived from One Single Leaf.

173. J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart, B.R. Worth, W.G.W. Kurz, K.B. Chatson and F. Constabel, *Helv. Chim. Acta*, 64, 1837-1842 (1981). Alkaloid Production in *Catharanthus roseus* Cell Cultures. VII. Effect of Parameter Changes and Catabolism Studies on Cell Line PRL No. 953.

174. J.P. Kutney, M.K. Choudhury, J.M. Decesare, H. Jacobs, A.K. Singh and B.R. Worth, *Can. J. Chem.*, 59, 3162-3167 (1981). Chemistry of Thujone. IV. Cyclopropane Derivatives and Analogs of Pyrethrins.

175. J.P. Kutney, L.S.L. Choi, P. Kolodziejczyk, S.K. Sleigh, K.L. Stuart, B.R. Worth, W.G.W. Kurz, K.B. Chatson and F. Constabel, *J. Natural Products*, 44, 536-540 (1981). Alkaloid Production in *Catharanthus roseus* Cell Cultures. V. Alkaloids from the 176G, 299Y, 340Y and 951G Cell Lines.

176. J.P. Kutney, M. Singh, E. Dimitriadis, G.M. Hewitt, P.J. Salisbury, B.R. Worth, J.A. Servizi, D.W. Martens and R.W. Gordon, *Can. J. Chem.*, 59, 3350-3355 (1981). Studies related to Biological Detoxification of Kraft Pulp Mill Effluent. II. The Biotransformation of Isopimaric Acid with *Mortierella isabellina*.

177. F. Constabel, S. Rambold, J.P. Shyluk, D. LeTourneau, W.G.W. Kurz and J.P. Kutney, *Z. Pflanzenphysiol.*, 105, 53-58 (1981). Alkaloid Production in *Catharanthus roseus* Cell Cultures. X. Mitotoxic Effect of 3',4'-Dehydrovinblastine.

178. J.P. Kutney, L. Kaczmarek, D. Mostowicz and B.R. Worth, *Can. J. Chem.*, 60, 323-326 (1982). Dihydropyridines in Synthesis and Biosynthesis. III. Coupling of Dihydropyridinetricarbonylchromium(0) Complexes: Bipyridyls.

179. J.P. Kutney, E. Dimitriadis, G.M. Hewitt, M. Singh and B.R. Worth, *Helv. Chim. Acta*, 65, 661-670 (1982). Studies Related to Biological Detoxification of Kraft Pulp Mill Effluent. III. The Biodegradation of Abietic Acid with *Mortierella isabellina*.

180. J.P. Kutney, B. Aweryn, L.S.L. Choi, P. Kolodziejczyk, W.G.W. Kurz, K.B. Chatson and F. Constabel, *Helv. Chim. Acta*, 65, 1271-1278 (1982). Alkaloid Production in *Catharanthus roseus* Cell Cultures. XI. Biotransformation of 3',4'-Anhydrovinblastine to Other Bisindole Alkaloids.
181. J.P. Kutney, Y. Karton, N. Kawamura and B.R. Worth, *Can. J. Chem.*, 60, 1269-1278 (1982). Dihydropyridines in Synthesis and Biosynthesis. IV. Dehydrosecodine, in vitro Precursor of Indole Alkaloids.
182. J.P. Kutney and A.K. Singh, *Can. J. Chem.*, 60, 1842-1846 (1982). The Chemistry of Thujone. V. Thujone as a Chiral Synthone for the Preparation of Sesquiterpenes. Synthesis of (+)-Carissone.
183. J.P. Kutney, E. Dimitriadis, G.M. Hewitt, P.J. Salisbury, M. Singh, J.A. Servizi, D.W. Martens and R.W. Gordon, *Helv. Chim. Acta*, 65, 1343-1350 (1982). Studies Related to Biological Detoxification of Kraft Pulp Mill Effluent. IV. The Biodegradation of 14-Chlorodehydroabietic Acid with *Mortierella isabellina*.
184. J.P. Kutney and E. Dimitriadis, *Helv. Chim. Acta*, 65, 1351-1358 (1982). Studies Related to Biological Detoxification of Kraft Pulp Mill Effluent. V. The synthesis of 12- and 14-Chlorodehydroabietic Acids and 12, 14-Dichlorodehydroabietic Acid, Fish-toxic Diterpenes from Kraft Pulp Mill Effluent.
185. J.P. Kutney, M. Noda, N.G. Lewis, B. Monteiro, D. Mostowicz and B.R. Worth, *Can. J. Chem.*, 60, 2426-2430 (1982). Dihydropyridines in Synthesis and Biosynthesis. V. Synthesis of Pyridocarbazole Alkaloids: Olivacine and (-)-Guatambuine.
186. J.P. Kutney, L.S.L. Choi, T. Honda, N.G. Lewis, T. Sato, K.L. Stuart and B.R. Worth, *Helv. Chim. Acta*, 65, 2088-2101 (1982). Biosynthesis of the Indole Alkaloids. Cell-free Systems from *Catharanthus roseus* Plant.
187. J.P. Kutney and I. Perez, *Helv. Chim. Acta*, 65, 2242-2250 (1982). Studies on Natural Products from Cuban Plants. Alkaloids from *Tabernaemontana citrifolia*.
188. J.P. Kutney, P. Grice, K.O. Pascoe, K. Piotrowska, S.J. Rettig, J. Szykula and J. Trotter, *Helv. Chim. Acta*, 65, 2345-2354 (1982). The Chemistry of Thujone. VI. Thujone as a Chiral Synthone for the Synthesis of Optically Active Steroid Analogues.
189. J.P. Kutney, *Pure Appl. Chemistry*, 54, 2523-2536 (1982). Studies in Plant Tissue Culture: Potential Sources of Clinically Important Anti-tumor Agents.
190. F. Constabel, P. Gaudet-LaPrairie, W.G.W. Kurz and J.P. Kutney, *Plant Cell Reports*, 1, 139-142 (1982). Alkaloid Production in *Catharanthus roseus* Cell Cultures. XII. Biosynthetic Capacity of Callus from Original Explants and Regenerated Shoots.

191. J.P. Kutney, E. Dimitriadis, G.M. Hewitt, P.J. Salisbury, M. Singh, J.A. Servi, D.W. Martens and R.W. Gordon, *Helv. Chim. Acta*, 66, 921-928 (1983). Studies Related to Biological Detoxification of Kraft Pulp Mill Effluent. VI. The Biodegradation of 12,14-Dichlorodehydroabietic Acid with *Mortierella isabellina*.
192. J.P. Kutney and A.K. Singh, *Can. J. Chem.*, 61, 1111-1114 (1983). The Chemistry of Thujone. VII. Thujone as a Chiral Synthone for the Preparation of Sesquiterpenes. Synthesis of b-elemol.
193. J.P. Kutney, L.S.L. Choi, R. Duffin, G. Hewitt, N. Kawamura, T. Kurihara, P. Salisbury, R. Sindelar, K.L. Stuart, P.M. Townsley, W.T. Chalmers, F. Webster and G.G. Jacoli, *Planta Medica*, 48, 158-163 (1983). Cultivation of *Tripterygium wilfordii* Tissue Cultures for the Production of the Cytotoxic Diterpene Tripdiolide.
194. J.P. Kutney, P. Grice, K.O. Pascoe, K. Piotrowska, S.J. Rettig, J. Szykula and J. Trotter, *Helv. Chim. Acta*, 66, 1806-1819 (1983). The Chemistry of Thujone. VIII. Thujone as a Chiral Synthone for the Synthesis of Optically Active Steroid Analogues. The Enol Lactone Route.
195. J.P. Kutney, P. Grice, K. Piotrowska, S.J. Rettig, J. Szykula, J. Trotter and L.V. Chu, *Helv. Chim. Acta*, 66, 1820-1826 (1983). The Chemistry of Thujone. IX. Thujone as a Chiral Synthone for the Synthesis of Optically Active Steroid Analogues. The Vinylpicoline Route.
196. J.P. Kutney, G.M. Hewitt, P.J. Salisbury, M. Singh, J.A. Servi, D.W. Martens and R.W. Gordon, *Helv. Chim. Acta*, 66, 2191-2197 (1983). Studies Related to Biological Detoxification of Kraft Pulp Mill Effluent. VII. The Biotransformation of 12-Chlorodehydroabietic Acid with *Mortierella isabellina*.
197. J.P. Kutney, B. Aweryn, L.S.L. Choi, T. Honda, P. Kolodziejczyk, N.G. Lewis, T. Sato, S. K. Sleight, K. L. Stuart, B.R. Worth, W.G.W. Kurz, K.B. Chatson, and F. Constabel, *Tetrahedron*, 39, 3781-3795 (1983). Studies in Plant Tissue Culture. The Synthesis and Biosynthesis of Indole Alkaloids.
198. P.M. Townsley, F. Webster, J.P. Kutney, P. Salisbury, G. Hewitt, N. Kawamura, L. Choi, T. Kurihara and G.G. Jacoli, *Biotechnology Letters*, 5, 1, 13-18 (1983). The Recycling Air Lift Transfer Fermenter for Plant Cells.
199. J.P. Kutney, J.D. Leman, P.J. Salisbury, T. Yee and I. H. Sanchez, *Can. J. Chem.*, 62, 320-325 (1984). Studies in the Usnic Acid Series. IX. The Biodegradation of (+)-Usnic Acid by *Mucor globosus*.
200. J.P. Kutney, *Pure Appl. Chem.*, 56, 1011-1024 (1984). Studies in Plant Tissue Culture. Synthesis and Biosynthesis of Clinically Important Anti-tumour Agents.

201. J.P. Kutney, Plant Products Produced in Cell Culture, in "Natural Products and Drug Development", Alfred Benzon Symposium 20, Editors: P. Krogsgaard-Larsen, S. Brogger Christensen, H. Kofod, Munksgaard, Copenhagen, p. 46-64 (1984).
- 202 J.P. Kutney and A.K. Singh, *Can. J. Chem.*, 62, 1407-1409 (1984). The Chemistry of Thujone. X. Thujone as a Chiral Synthone for the Preparation of Sesquiterpenes. Synthesis of (+)- α -eudesmol and (-)- α -selinene.
- 203 J.P. Kutney and A.K. Singh, *Can. J. Chem.*, 62, 2813-2817 (1984). The Chemistry of Thujone. XI. Thujone as a Chiral Synthone for the Preparation of Sesquiterpene Lactones. Synthesis of (1)- α -santonin.
204. J.P. Kutney, L.S.L. Choi, G.M. Hewitt, P.J. Salisbury and M. Singh, *Applied and Environmental Microbiology*, 49, 96-100 (1985). Biotransformation of Dehydroabietic Acid with Resting Cell Suspensions and Calcium Alginate-Immobilized Cells of *Mortierella isabellina*.
205. J.P. Kutney, B. Aweryn, K.B. Chatson, L.S.L. Choi and W.G.W. Kurz. *Plant Cell Reports*, 4, 259-262 (1985). Alkaloid production of *Catharanthus roseus* (L.) G. Don Cell Cultures. XIII. Effects of Bioregulators on Indole Alkaloid Biosynthesis.
206. J.A. Servizi, D.W. Martens, R.W. Gordon, J.P. Kutney, M. Singh, E. Dimitriadis, G.M. Hewitt, P.J. Salisbury and L.S.L. Choi. *Water. Poll. Res. J. Canada*, 21, 1, 119-129 (1986). Microbiological Detoxification of Resin Acids.
207. J.P. Kutney. *Heterocycles*, 25, 617-640 (1987). Studies in Plant Tissue Culture. The Synthesis and Biosynthesis of Indole Alkaloids.
208. J.P. Kutney. Chapter 10. Studies in Plant Tissue Cultures: Synthesis and Biosynthesis of Alkaloids. In: *Models in Plant Physiology and Biochemistry*, Volume 2. Edited by D.W. Newman and K. G. Wilson. CRC Press, Boca Raton, (1987), pp. 47-50.
209. J. Vukovic, A. E. Goodbody, J. P. Kutney and M. Misawa. *Tetrahedron*, 44, 325-331 (1988). Production of 3',4'-Anhydrovinblastine: A Unique Chemical Synthesis.
210. J.P. Kutney, C.A. Boulet, L.S.L. Choi, W. Gustowski, M. McHugh, J. Nakano, T. Nikaido, H. Tsukamoto, G.M. Hewitt and R. Suen. *Heterocycles*, 27, 613-620 (1988). Alkaloid Production in *Catharanthus roseus* (L.) G. Don Cell Cultures. XIV. The Role of Unstable Dihydropyridinium Intermediates in the Biosynthesis of Bisindole Alkaloids.
211. J.P. Kutney, C.A. Boulet, L.S.L. Choi, W. Gustowski, M. McHugh, J. Nakano, T. Nikaido, H. Tsukamoto, G.M. Hewitt and R. Suen. *Heterocycles*, 27, 621-628 (1988). Alkaloid Production in *Catharanthus roseus* (L.). G. Don Cell Cultures. XV. Synthesis of Bisindole Alkaloids by Use of Immobilized Enzyme Systems.

212. J.P. Kutney, B. Botta, C.A. Boulet, C.A. Buschi, L.S.L. Choi, J. Golinski, M. Gumulka, G.M. Hewitt, G. Lee, M. McHugh, J. Nakano, T. Nikaido, J. Onodera, I. Perez, P. Salisbury, M. Singh, R. Suen and H. Tsukamoto. *Heterocycles*, 27, 629-637 (1988). Alkaloid Production in *Catharanthus roseus* (L.) G. Don Cell Cultures. XVI. Biotransformation of 3',4'-Anhydrovinblastine with *Catharanthus roseus* Cell Cultures and Enzyme Systems.
213. J.P. Kutney. *Bol. Soc. Chil. Quim.*, 33, 1-4 (1988). Chemistry and Biotechnology. Important Avenues for Development of Waste By-Products for Commercial Utilization.
214. J.P. Kutney, J.D. Berset, G.M. Hewitt and M. Singh. *Appl. Environm. Microbiol.*, 54, 1015-1022 (1988). Biotransformation of Dehydroabietic, Abietic and Isopimaric Acids by *Mortierella isabellina* Immobilized in Polyurethane Foam.
215. J.P. Kutney. Diterpenes. In: *Cell Culture and Somatic Cell Genetics of Plants. Phytochemicals in Plant Cell Culture*, Vol. 5. Edited by F. Constabel and I.K. Vasil. Academic Press, New York, (1988), pp. 159-177.
216. M. Misawa, T. Endo, A. Goodbody, J. Vukovic, C. Chapple, L. Choi and J.P. Kutney. *Phytochemistry*, 27, 5, 1355-1359 (1988). Synthesis of Dimeric Indole Alkaloids by Cell Free Extracts from Cell Suspension Cultures of *Catharanthus roseus*.
217. A. E. Goodbody, T. Endo, J. Vukovic, J.P. Kutney, L.S.L. Choi and M. Misawa. *Planta Medica*, 54, 136-140 (1988). Enzymic Coupling of Catharanthine and Vindoline to Form 3',4'-Anhydrovinblastine by Horseradish Peroxidase.
218. J.P. Kutney, L.S.L. Choi, J. Nakano, and H. Tsukamoto. *Heterocycles*, 27, 8, 1827-1836 (1988). Flavine Coenzyme Mediated Photooxidation of 3',4'-Anhydrovinblastine. Further Information on the Later Stages of Bisindole Alkaloid Biosynthesis.
219. J.P. Kutney, L.S.L. Choi, J. Nakano, and H. Tsukamoto. *Heterocycles*, 27, 8, 1837-1843 (1988). Biomimetic Chemical Transformation of 3',4'-Anhydrovinblastine to Vinblastine and Related Bisindole Alkaloids.
220. J.P. Kutney, L.S.L. Choi, J. Nakano, H. Tsukamoto, M. McHugh, and C.A. Boulet. *Heterocycles*, 27, 8, 1845-1853 (1988). A Highly Efficient and Commercially Important Synthesis of the Antitumor *Catharanthus* Alkaloids Vinblastine and Leurosidine from Catharanthine and Vindoline.
221. B. N. Zhou, D. Y. Zhu, F. X. Deng, C. G. Huang, J.P. Kutney and M. Roberts. *Planta Medica*, 54, 330-332 (1988). Studies on New Components and Stereochemistry of Diterpenoids from *Tripterygium wilfordii*.
222. J.P. Kutney. Studies in Plant Tissue Culture - The Biosynthesis of Complex Natural Products. In: *Structure Elucidation, Part A*, edited by Atta-ur-Rahman. Studies

in Natural Products Chemistry Series, Vol. 2. Elsevier Science Publishers, Amsterdam, 1988, pp. 365-419.

223. A. Becalski, W.R. Cullen, M.D. Fryzuk, G. Herb, B.R. James, J.P. Kutney, K. Piotrowska, and D. Tapiolas. *Can. J. Chem.*, 66, 3108-3115, (1988). The Chemistry of Thujone. XII. The Synthesis of Pyrethroid Analogues via Chiral Cyclopropanation.

224. G.J. Kang, W.R. Cullen, M.D. Fryzuk, B.R. James, and J.P. Kutney. *J. Chem. Soc., Chem. Commun.*, 1466-1467 (1988). Rhodium(I)-Catalysed Asymmetric Hydrogenation of Imines.

225. J.P. Kutney. *Pure Appl. Chem.*, 61, 449-452, 1989. Studies in Biotechnology. Important Routes to the Synthesis and Biosynthesis of Biologically Active Natural Products.

226. J.P. Kutney, K. Piotrowska, J.W. Somerville, S.-P. Huang and S.J. Rettig. *Can. J. Chem.*, 67, 580-589 (1989). The Chemistry of Thujone. XIII. Synthetic Studies in the Digitoxigenin Series.

227. C. Carvalho, W. R. Cullen, M.D. Fryzuk, H. Jacobs, B.R. James, J.P. Kutney, K. Piotrowska and V.K. Singh. *Helv. Chim. Acta*, 72, 205-212, (1989). The Chemistry of Thujone. XIV. Synthesis of Biologically Active Aryl Terpenoid Analogues.

228. J.P. Kutney, F. J. Lopez, S.-P. Huang, and H. Kurobe. *Heterocycles*, 28, 2, 565-572 (1989). A General Approach to the Total Synthesis of Yuehchukene and Its Analogues. A Novel Anti-implantation Agent.

229. W.R. Cullen, M.D. Fryzuk, B.R. James, J.P. Kutney, G.-J. Kang, G. Herb, I.S. Thorburn, and R. Spogliarich. *J. Mol. Catal.*, 62, 243-253 (1990). Asymmetric Homogeneous Hydrogenation of Imines Using Rhodium-Phosphine Systems.

230. J.P. Kutney. *Natural Product Reports*, 7, 2, 85-103 (1990). Biosynthesis and Synthesis of Indole and Bisindole Alkaloids in Plant Cell Cultures: A Personal Overview.

231. J.P. Kutney, K. Piotrowska, Y.H. Chen, K.P.N. Cheng, Z. Gao and S.J. Rettig. *Can. J. Chem.*, 68, 1698-1708 (1990). The Chemistry of Thujone. XV. A Versatile Route to Antifeedants of the Polygodial Family.

232. J.P. Kutney. *Synlett*, 1, 11-19 (1991). Plant Cell Cultures and Synthetic Chemistry - A Potentially Powerful Route to Complex Natural Products.

233. J.P. Kutney, F.J. Lopez, S-P. Huang, H. Kurobe, R. Flogaus, K. Piotrowska, and S.J. Rettig. *Can. J. Chem.*, 69, 949-971 (1991). A Versatile Synthetic Route to the Anti-Implantation Agent, Yuehchukene and Its Analogues.

234. J.P. Kutney, M. Arimoto, G.M. Hewitt, T.C. Jarvis, and K. Sakata. *Heterocycles*, 32, 2305-2309, (1991). Studies with Plant Cell Cultures of *Podophyllum peltatum* L. I. Production of Podophyllotoxin, Deoxypodophyllotoxin, Podophyllotoxone, and 4'-Demethylpodophyllotoxin.
235. J.P. Kutney. Studies on Plant Tissue Culture - Synthesis and Biosynthesis of Biologically Active Substances. In: *Bioorganic Chemistry in Healthcare and Technology*, edited by U.K. Pandit and F.C. Alderweireldt. NATO ASI Series, Plenum Press, New York, 1991, pp. 87-107.
236. J.P. Kutney. Studies in Biotechnology - Synthesis and Biosynthesis of Active Anti-Cancer Drugs. In: *Recent Advances in Biochemistry, Proceedings 5th FAOB Congress, Seoul, Korea*, edited by S.M. Byun, S.Y. Lee and C.H. Yang. Biochemical Society of Republic of Korea, Seoul, Korea, 1991, pp. 521-526.
237. J.P. Kutney, G.M. Hewitt, G. Lee, K. Piotrowska, M. Roberts, and S.J. Rettig. *Can. J. Chem.*, 70, 1455-1480 (1992). Studies with Tissues Cultures of the Chinese Herbal Plant, *Tripterygium wilfordii*. Isolation of Metabolites of Interest in Rheumatoid Arthritis, Immunosuppression, and Male Contraceptive Activity.
238. J.P. Kutney, P.J. Gunning, R.G. Clewley, J. Somerville, and S.J. Rettig. *Can. J. Chem.*, 70, 2094-2114 (1992). The Chemistry of Thujone. XVI. Versatile and Efficient Routes to Safronitrile, *b*-Cyclogeranonitrile, *b*-Cyclocitral, Damascones, and their Analogues.
239. J.P. Kutney, G.M. Hewitt, T.C. Jarvis, J. Palaty and S.J. Rettig. *Can. J. Chem.*, 70, 2115-2133 (1992). Studies with Plant Cell Cultures of *Catharanthus roseus*. Oxidative Coupling of Dibenzylbutanolides Catalyzed by Plant Cell Culture Extracts.
240. J. Arnarp, W.L.A. Chu, C.R. Enzell, G.M. Hewitt, J.P. Kutney, K. Li, R.K. Milanova, H. Nakata, A. Nasiri, and Y. Okada. *Acta Chem. Scand.*, 47, 683-688 (1993). Tobacco Chemistry 76. Biotransformations of Tobacco Isoprenoids using Plant Cell Cultures of *Tripterygium wilfordii*.
241. J. Arnarp, W.L.A. Chu, C.R. Enzell, G.M. Hewitt, J.P. Kutney, K. Li, R.K. Milanova, H. Nakata, A. Nasiri, and T. Tsuda. *Acta Chem. Scand.*, 47, 689-694 (1993). Tobacco Chemistry 77. Biotransformations of a Major Tobacco Cembratrienediol using Plant Cell Cultures of *Nicotiana glauca*.
242. J. Arnarp, W.L.A. Chu, C.R. Enzell, G.M. Hewitt, J.P. Kutney, K. Li, R.K. Milanova, H. Nakata, A. Nasiri, and T. Tsuda. *Acta Chem. Scand.*, 47, 793-798 (1993). Tobacco Chemistry 78. Biotransformations of Tobacco Cembranoids using Plant Cell Cultures of *Nicotiana glauca*.
243. J.P. Kutney, Y.P. Chen, S. Gao, G.M. Hewitt, F. Kuri-Brena, R.K. Milanova, and N. Stoynov. *Heterocycles*, 36, 13-20 (1993). Studies with Plant Cell Cultures of

Podophyllum peltatum L. II. Biotransformation of Dibenzylbutanolides to Lignans. Development of a "Biological Factory" for Lignan Synthesis.

244. J.P. Kutney, M.D. Samija, G.M. Hewitt, E.C. Bugante, and H. Gu. *Plant Cell Reports*, 12, 356-359 (1993). Anti-inflammatory Oleanane Triterpenes from *Tripterygium wilfordii* Cell Suspension Cultures by Fungal Elicitation.

245. J.P. Kutney. Chapter: Plant Cell Cultures and Synthetic Chemistry - Routes to Clinically Important Compounds. In: *Phytochemical Potential of Tropical Plants*, edited by K.T. Downum, J.T. Romeo, and H.A. Stafford. Recent Advances in Phytochemistry Series, Proceedings of the Phytochemical Society of North America, Miami Beach, Florida, 1992, Vol. 27. Plenum Press, New York, 1993, pp. 235-265.

246. J.P. Kutney. *Acc. Chem. Res.*, 26, 559-566 (1993). Plant Cell Culture Combined with Chemistry - A Powerful Route to Complex Natural Products.

247. J.P. Kutney. A Chapter in *Thujone Chemistry - From Waste By-Product to Natural Products and Related Compounds*. In: *Stereoselective Synthesis (Part I)*, edited by Attaur-Rahman. *Studies in Natural Products Chemistry Series*, Vol. 14. Elsevier Science Publishers, Amsterdam, 1994, pp. 389-447.

248. J.P. Kutney and Y.H. Chen. *Can. J. Chem.*, 72, 1570-1581 (1994). The Chemistry of Thujone. XVII. The Synthesis of Ambergris Fragrances and Related Analogues.

249. K. Li, M. Chester, J.P. Kutney, J.N. Saddler, and C. Breuil. *Analyt. Lett.*, 27, 1671-1688 (1994). Production of Polyclonal Antibodies for the Detection of Dehydroabietic Acid in Pulp Mill Effluents.

250. J.P. Kutney. *Pure Appl. Chem.*, 66, 2243-2247 (1994). Biotechnology and Synthetic Chemistry: Routes to Clinically Important Natural Products.

251. J.P. Kutney, J. Wagner, and G.M. Hewitt. *Helv. Chim. Acta*, 77, 1707-1720 (1994). Synthesis of b-Cyperone via Fungal Hydroxylation of Thujone-derived Tricyclic Cyclopropanes.

252. R. K. Milanova, M. Moore, K. Han, and J. P. Kutney. Biotransformation of Diterpene Analogues. Studies Related to the Chinese Herbal Plant, *Tripterygium wilfordii*. In: *Trends in Traditional Medicine Research, Proceedings of the International Conference on the Use of Traditional Medicine & Other Natural Products in Health Care*, June 1993, Penang, Malaysia, Ed. by the Scientific Committee. The School of Pharmaceutical Sciences, Universiti Sains Malaysia, Penang, Malaysia, 1995, pp. 513-523.

253. J. P. Kutney. Plant Cell Culture Combined with Chemistry - Potentially Powerful Routes to Clinically Important Compounds. In: *Current Issues in Plant Molecular and Cellular Biology*, Proceedings of the VIIIth International Congress on Plant Tissue and

Cell Culture, Florence, Italy, June 1994, edited by M. Terzi, R. Cella, and A. Falavigna. Current Plant Science and Biotechnology in Agriculture Series, Vol. 22, Kluwar Academic Publishers, Dordrecht, The Netherlands, 1995, pp. 611-616.

254. J. P. Kutney, X. Du, R. Naidu, N. M. Stoykov, and M. Takemoto. *Heterocycles*, 42, 479-484 (1996). Biotransformation of Dibenzylbutanolides by Peroxidase Enzymes. Routes to the Podophyllotoxin Family.

255. J. P. Kutney and K. Han. *Recl. Trav. Chim. Pays-Bas*, 115, 77-93 (1996). Studies with Plant Cell Cultures of the Chinese Herbal Plant, *Tripterygium wilfordii*. Isolation and Characterization of Diterpenes.

256. M. Takemoto, K. Achiwa, N. Stoykov, D. Chen, and J. P. Kutney. *Phytochemistry*, 42, 423-426 (1996). Synthesis of Optically Active α -Phenylpyridylmethanols by Immobilized Cell Cultures of *Catharanthus Roseus*.

257. J.P. Kutney, Y.-H. Chen, and S.J. Rettig. *Can. J. Chem.*, 74, 666-676 (1996). The Chemistry of Thujone. XVIII. Homothujone and Its Derivatives.

258. J. P. Kutney, Y.-H. Chen, and S. J. Rettig. *Can. J. Chem.*, 74, 1753-1761 (1996). The Chemistry of Thujone. XIX. Acid-promoted Ring Cleavage of Thujone-derived Cyclopropylcarbinols.

259. B. Botta, G. Delle Monache, P. Ricciardi, A. Vitali, V. Vinciguerra, D. Misiti, J. P. Kutney, and N. Stoykov. *Heterocycles*, 43, 2443-2456 (1996). Studies with Plant Cell Cultures of *Cassia didymobotrya*. VII. Enzyme Catalyzed Biotransformation of Dibenzylbutanolides to Podophyllotoxin Analogues and Related Compounds.

260. J. P. Kutney. *Pure & Applied Chem.*, 68, 2073-2080 (1996). Special Issue "Symposium in Print: Highlights in Bioorganic Chemistry." Plant Cell Culture Combined with Chemistry - A Powerful Route to Complex Natural Products.

261. J. P. Kutney, K. Han, F. Kuri-Brena, R. K. Milanova, and M. Roberts. *Heterocycles*, 44, 95-104 (1997). Studies with Plant Cell Cultures of the Chinese Herbal Plant, *Tripterygium wilfordii*. Synthesis and Biotransformation of Diterpene Analogues.

262. J. P. Kutney. *Pure & Applied Chem.*, 69, 431-436 (1997). Plant Cell Culture Combined with Chemistry - Routes to Clinically Important Compounds.

263. J.P. Kutney and C. Cirera. *Can. J. Chem.*, 75, 1136-1150 (1997). The Chemistry of Thujone. XX. New Enantioselective Syntheses of Ambrox and Epi-Ambrox.

264. J. P. Kutney. *Gazz. Chim. Italiana*, 127, 293-303 (1997). Plant Cell Culture and Synthetic Chemistry - Routes to Clinically Important Natural Products.

265. N. Kucukboyaci, F. Bingol, B. Sener, J.P. Kutney, and N. Stoykov. *Natural Product Sciences*, **4**, 257-262 (1998). Isoquinoline Alkaloids from *Fumaria bastardii*.
266. J. P. Kutney. *Pure & Applied Chem.*, **70**, 2093-2100 (1998). Biotechnology and Synthetic Chemistry – Routes to Clinically Important Compounds.
267. J. P. Kutney. *Pure & Applied Chem.*, **71**, 1025-1032 (1999). Biotechnology and Synthetic Chemistry – Routes to Clinically Important Compounds.
268. M. Takemoto, Y. Matsuoka, K. Achiwa, and J. P. Kutney. *Tetrahedron Lett.*, **41**, 499-502 (2000). Biocatalytic Dediasteriomization of Dibenzylbutanolides by Plant Cell Cultures.