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PHYTOCHEMISTRY

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Phytochemistry Vol. 66, No. 17, 2005

Special issue

Tannins and Related Polyphenols (Part 1)

Editors: Daneel Ferreira, Georg Gross, Herbert Kolodziej and Takashi Yoshida

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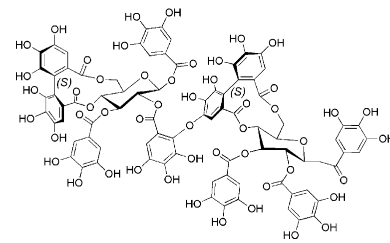
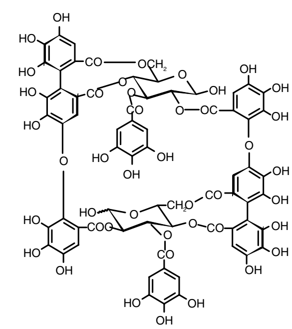
Ruth Niemetz, Georg G. Gross*

Enzyme studies on the pathways from gallic acid via 1,2,3,4,6-pentagalloyl-β-D-glucose to complex gallotannins and monomeric and dimeric ellagitannins are reviewed.



Takuo Okuda*

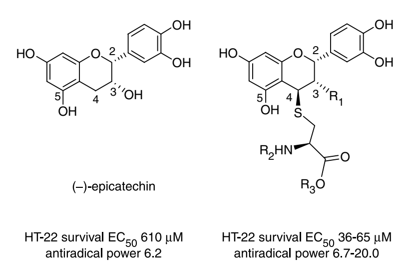
Correlations of structural classifications of tannins with plant evolutionary systems, and health effects, e.g., inhibition of lipid-peroxidation, mutagenicity of carcinogens and tumor promotion, and also host-mediated antitumor activity and antiviral activity, of various tannins in medicinal plants are reviewed.



Oenothein B

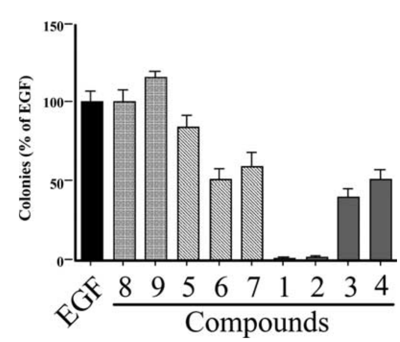
J.L. Torres*, C. Lozano, P. Maher

Cysteine derivatives of epicatechin protected neural cells from glutamate-mediated programmed cell death mainly by maintaining the glutathione levels.



Masaaki Nomura, Hirotaka Tsukada, Daisuke Ichimatsu, Hideyuki Ito, Takashi Yoshida, Ken-Ichi Miyamoto*

Some ellagitannins and chromone gallates blocked epidermal growth factor-induced cell transformation in a promotion sensitive JB6 Cl 41 cell line.



Comparison of biological activities between lignin-carbohydrate complexes and tannin

	Anti-viral activity	Effect on VC action	Macrophage activation
Lignin-carbohydrate complex (LCC)	potent	stimulatory	potent
LCC treated with acid	potent		
LCC treated with $NaClO_2$	weak		
Phenylpropanoid polymer	potent		
Phenylpropanoid monomer	weak		
Tannin	weak	inhibitory	weak
Gallic acid	weak	inhibitory	weak

OTHER CONTENTS

* Corresponding author

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ISSN 0031-9422