Quick Preparative Separation of Natural Naphthopyranones with Antioxidant Activity by High-Speed Counter-Current Chromatography

Gilda G. Leitão\textsuperscript{a}, Suzana G. Leitão\textsuperscript{b} and Wagner Vilegas\textsuperscript{c}\textsuperscript{*}

\textsuperscript{a} Nucléo de Pesquisas de Produtos Naturais, UFRJ, Rio de Janeiro, RJ, Brazil
\textsuperscript{b} Faculdade de Farmácia, Depto. de Produtos Naturais e Alimentos, UFRJ, Rio de Janeiro, RJ, Brazil
\textsuperscript{c} Instituto de Química de Araraquara, UNESP, Depto. de Química Orgânica, CP 355, 14801-970, Araraquara, SP, Brazil. Fax: +55-16-222-7932. E-mail: vilegasw@iq.unesp.br

\textsuperscript{*} Autor for correspondence and reprint requests

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The natural naphthopyranones paepalantine (1), paepalantine-\(9\text{-}\beta\text{-}d\text{-}glucopyranoside (2) and paepalantine-9-\(\alpha\text{-}\beta\text{-}d\text{-}allopyranosyl\text{-}\alpha\text{-}d\text{-}glucopyranoside (3) were separated in a preparative scale from the ethanolic extract of the capitula of \textit{Paepalanthus bromelioides} by high-speed counter-current chromatography (HSCCC). The solvent system used was composed of water-ethanol-ethyl acetate-hexane (10:4:10:4, v/v/v/v). This technique led to the separation of the three different naphthopyranone glycosides in pure form in approximately 7 hours. Paepalantine showed a good antioxidant activity when assayed by the DPPH radical spectrophotometric assay.