Cytotoxic Naphthoquinones from Roots of *Lippia microphylla*

Hélcio S. Santos, Sônia M. O. Costa, Otília D. L. Pessoa, Manoel O. Moraes, Claudia Pessoa, Sergio Fortier, Edilberto R. Silveira, and Telma L. G. Lemos,*

*a* Departamento de Química Orgânica e Inorgânica, Universidade Federal do Ceará, CP 12200, 60451-970 Fortaleza, Ceará, Brazil E-mail: tlemos@dquo.ufc.br

*b* Departamento de Fisiologia e Farmacologia, Universidade Federal do Ceará, CP 3157, 60430-270 Fortaleza, Ceará, Brazil

* Author for correspondence and reprint requests


A new prenylated naphthoquinone dimer named microphyllaquinone (1), a mixture of 6-methoxy- and 7-methoxy-naphtho[2,3-b]-furan-4,9-quinones (2a/2b) and tecomaquinone I (3), were isolated from roots of *Lippia microphylla*. The structures were elucidated by spectroscopic methods, including detailed 1D and 2D (COSY, NOESY, HMQC, HMBC) NMR data. Unpublished $^{13}$C NMR data of 2a and 2b are reported. The *in vitro* cytotoxic activity of the isolated compounds was tested against five types of tumor cells.

Key words: *Lippia microphylla*, Naphthoquinones, Cytotoxicity Activity