

BROMOPYRROLE ALKALOIDS FROM THE SPONGE *TEDANIA BRASILIENSIS* AND THE ANTI-PARASITIC ACTIVITY

<u>Lizbeth L. L. Parra¹</u>, Roberto G. S. Berlinck¹, Eduardo Hajdu², Antonio G. Ferreira³, Andre G. Tempone⁴.

¹Instituto de Química de São Carlos, Universidade de São Paulo, São Carlos, SP, Brazil; ²Museu Nacional, Universidade Federal do Rio de Janeiro, RJ, Brazil; ³Departamento de Química, Universidade Federal de São Carlos, São Carlos, SP, Brazil; ⁴Instituto Adolfo Lutz, São Paulo, SP, Brazil.

Abstract:

Bromopyrrole alkaloids isolated from marine sponges encompass an incredible chemical diversity of potently bioactive compounds, ranging from the oroidin-related archetypal motifs to the structurally very complex oroidin-tetramers stylissadines.

Pseudoceratidine (1) has been previously isolated only from the sponge Pseudoceratina purpurea, and displayed potent anti-fouling activity. The antiparasitic MeOH extract of T. brasiliensis presented pseudoceratidine (1) as the by far more abundant metabolite.



Several steps of chromatographic separation procedure led us to obtain a series of minor components of T. brasiliensis extract, represented by the novel tedamides A - D, the new 3-desbromopseudoceratidine, 20-desbromopseudoceratidine, 4-bromopseudoceratidine, 19-bromopseudoceratidine and 4,19-dibromopseudoceratidine. Compounds have been isolated in pairs of inseparable isomers. Moreover, we have prepared the N¹²-acetyl and the N¹²-formyl derivatives of pseudoceratidine as well. Herein we discuss the isolation, identification and anti-parasitic activities of this series of polybrominated and modified derivatives of pseudoceratidine.