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PHENOLIC COMPOUNDS ISOLATED BY HPCCC FROM Sextonia rubra BARKS

Bruna Amazonas Pinho [1*], *Sarah Larissa Gomes Flores* [1], *Gilda Guimarães Leitão* [2], *Anderson Cavalcante Guimarães* [1]
*brunaamazonasufam@gmail.com

1-Departamento de Química, Instituto de Ciências Exatas-UFAM, 69077-00, Manaus, AM, Brazil. 2-Instituto de Pesquisa de Produtos Naturais-UFRJ, 21941-630, Rio de Janeiro, RJ, Brazil.

S. rubra (Lauraceae) is one of the most investigated species in the timber trade of Amazonas and is the only representative of its genus in Brazil. Phytochemical studies with crude extracts of the barks and branches have indicated larvicidal, termiticidal, fungicidal and antioxidant activities. In this study we describe the isolation and purification of phenolics compounds by high-performance countercurrent chromatography (HPCCC) from the ethyl acetate (EAE) and butanol (BE) extracts of the bark of *S. rubra* as well as the evaluation of their antioxidant potential. The fractions were analyzed using thin layer chromatography (TLC), MS and NMR. The EAE (3.3 g) and BE (5.1 g) were fractionated by HPCCC, using the semi-preparative column in a step-gradient reversed phase (EAE) and normal phase (BE) elution mode. For fractionations of EAE, the stationary phase (SP) was the upper phase of the solvent system hexane-ethyl acetate-methanol-butanol-water (HEMBWat-v/v/v/v/v)[1] S6 (0:1:0:0:1) and the lower phases of S6 and S8 (1:9:1:0:9), respective. The stationary phase retention (*Sf*) at the first step of the gradient was 73%. To procedures of BE, the SP was the lower phase S6 of HEMBWat systems and the mobile phases were the upper phases of S6, S4 (0:3:0:2:5) and S2 (0:1:0:4:5), in this order and *Sf* = 82%. Fraction rich in phenolic compounds were purified by semi-prep HPCCC, step-gradient and normal elution modes. The sample F14 (122,1 mg) from EAE used S14 (1:2:1:0:2), S12 (1:3:1:0:3), S10 (1:5:1:0:5), S8, S6, S4 and S2 (0:1:0:4:5) systems, and BE fractions F3 (67,9 mg) and F7 (149,4 mg) were processed the using S5 (0:4:0:1:5), S4 and S3 (0:2:0:3:3) systems. These processes resulted in the isolation of five substances **F14-11** (8.9 mg- vanillic acid), **F14-16** (20 mg - protocatechuic acid), **F14-24** (3.2 mg- proanthocyanidin A2) originating from EAA, and **F3-6** (22.4 mg- epicatechin) and **F7-15** (16.7 mg - nudeposide) as of BE. HPCCC performed in two steps the isolations of two phenolic acids, two flavonoids and one lignan from polar extracts showing the versatility of the technique in contributing to the chemical of the genus *Sextonia*.

[1] N. Sumner. Developing counter-current chromatography to meet the needs of pharmaceutical discovery. Journal of Chromatography v. 1218, n. 36, p. 6107-6113, 2011

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