A247 Isolation of bioactive compounds from *Fagara xanthoxyloides* using CPC and dereplication of alkaloids by LC-MS

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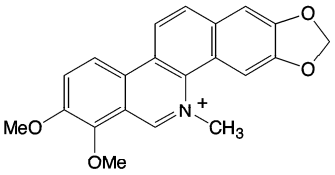
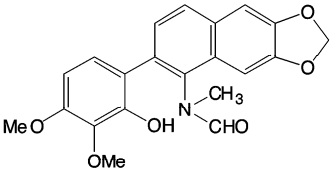
In the course of a study of medicinal plants from Mali, the root bark of *Fagara zanthoxyloides* Lam. (Rutaceae) was investigated. The root bark of this plant is used as a toothbrush in West African traditional medicine (1). Phytochemical investigation of the MeOH extract of *Fagara zanthoxyloides* Lam. (Rutaceae) led to the isolation of different biologically active compounds. The separation of antifungal and antioxidant compounds, together with acetylcholinesterase inhibitors, was performed by centrifugal partition chromatography (CPC). The fractions were monitored by direct TLC bioautographic assays (2,3). In addition, LC/UV/MS analysis performed on the crude MeOH extract allowed on-line identification of some known compounds. The structures of the isolated compounds were elucidated by classical spectroscopic methods including UV, NMR, MS and HR-MS.



Chelerythrine



Arnottiamide

References: 1. Kerharo, J. and Adam, J.G. (1971) La Pharmacopée sénégalaise traditionnelle. Vigot Frères. Paris. **2.** Homans, A.L. and Fuchs, A. (1970) J. Chromatogr. 51: 327-329. **3.** Marston A. et al. (2002) Phytochem. Anal. 13: 51-54.

A248 New biologically active acylated triterpene saponins from *Albizia adianthifolia*

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Three new triterpene saponins (**1-3**) have been isolated from the methanolic extract of the roots of *Albizia adian - thifolia* (Mimosaceae), indigenous to Africa. The crude saponin fraction was purified by successive medium pressure liquid chromatography (MPLC) on normal and reversed phase (C18) Silica gel yielding pure compounds. Their structures were elucidated by using 1D and 2 D NMR experiments (COSY, TOCSY, NOESY, HSQC, HMBC) as 3-O-{β-D-xylopyranosyl-(1→2)-β-D-fucopyranosyl-(1→6)-[βD-glucopyranosyl-(1→2)]-βD-glucopyranosyl}-21-O-{*o*-hydroxybenzoyl} acacic acid 28-O-αL-arabinofuranosyl-(1→4)-[β-D-glucopyranosyl-(1→3)]-αL-rhamnopyranosyl-(1→2)-β-D-glucopyranosyl ester (**1**), as 3-O-{β-D-xylopyranosyl-(1→2)-β-D-fucopyranosyl-(1→6)-2-acetylamino-2-deoxy-βD-glucopyranosyl}-21-O-{*o*-hydroxybenzoyl} acacic acid 28-O-αL-arabinofuranosyl-(1→4)-[βD-glucopyranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-β-D-glucopyranosyl ester (**2**), and 3-O-{β-D-xylopyranosyl-(1→2)-βD-fucopyranosyl-(1→6)-2-acetylamino-2-deoxy-βD-glucopyranosyl}-21-O-{(6*R*/*S*)-2-hydroxymethyl-6-methyl-6-O-(β-D-quinovopyranosyl)-2,7-octadienoyl} acacic acid 28-O-α-L-arabinofuranosyl-(1→4)-[β-D-glucopyranosyl-(1→3)]-α-L-rhamnopyranosyl-(1→2)-β-D-glucopyranosyl ester (**3**). A mixture of 1-2 was tested *in vitro* on Jurkat human leukemic cells (1). It showed an immunoproliferative effect at low concentration (10^{-4} - 10^{-1} µM), whereas the same mixture displayed cytotoxic activity at high concentration (> 10^{-1} µM).

Reference: 1. Gaidi, G. et al. (2000) J. Nat. Prod. 63: 1497-1502.