

New Bioactive Compounds from Two Chrysanthemum Saharian Species (Asteraceae) Growing in Algeria

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Abstract : Chrysanthemum herbs (Asteraceae) are extensively used as food additives and in folk medicine. Anti-cancer, anti-human immunodeficiency virus type 1 (HIV-1), anti-inflammatory, antinociceptive and antiproliferative activities as well as antioxidant effects have been reported for Chrysanthemum species. We report the isolation and identification of flavonoids and new and known terpenoids from the endemic species, *C. macrocarpum* and *C. deserticum* "guertoufa", used in Algerian Sahara as tea drinks and in "couscous" and soups "Chorba". Structures of the isolated compounds were established by 1-D and 2-D homo and hetero-nuclear NMR (¹H, ¹³C, COSY, HSQC, HMBC, and NOESY), mass spectrometry, UV and comparison with literature data. *C. deserticum* extracts were tested by four methods to identify the antioxidant activity namely, ABTS•+, DPPH• scavenging, CUPRAC and ferrous-ions chelating activity methods. Anti-inflammatory, antinociceptive, antiproliferative and antioxidant activities of *C. macrocarpum* extracts and isolated compounds are also reported here.

Keywords : Chrysanthemum macrocarpum, *C. deserticum*, flavonoids, terpenoids, antioxidant, anti-inflammatory, anti-proliferative

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