

Chemical analysis of carotenoids from *Anthemis tinctoria* L. (*Asteraceae*)

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Abstract

Anthemis tinctoria L. belongs to *Asteraceae* family and it is used for a long time by Romanian people for its tinctorial and medicinal properties. The pharmacognostical study of this species is important, the knowledge's about *Anthemis tinctoria* L. being poor. The carotenoids are important compounds present in *Anthemis tinctoria* L. flowers. Total carotenoids were extracted with a solvent mixture, saponified, separated on alumina open column and analyzed by HPLC-PDA. The fresh flowers contain 46,86 mg carotenoid /100 g and the dried flowers contain 6,25 mg carotenoid /100 g. The drug is a good source of xanthophylls (the concentration of lutein is 80%). There were identified carotenoids from carotene series (beta-carotene), monoxanthophyll series (alfa- and beta-criptoxantine), dixanthophyll series (luteine) and epoxidic series (neoxantine and violaxantine). The results show that it is possible to obtain some standardized extracts rich in carotenoids.

Key words: Anthemis, carotenoids, dixanthophylls, HPLC-PDA, lutein