

PARTIAL CHARACTERIZATION OF EXTRACTS FROM SOME *BRASSICACEAE* VEGETABLES

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Extraction of biological active compounds from Romanian cabbage, broccoli and rapeseeds was performed by classical methods: maceration, extraction under pressure, and two *eco-friendly* modern methods, extraction in ultrasonic field (59 kHz, 15-30min.) and extraction in microwaves field (2450 MHz, 15 min.). The extracts were characterized by DPPH (0.85-1.1 mmol/L Trolox) and FRAP (8.2-19.6 mmol/L Trolox) methods, total phenolics determination (660-3900 GAE/L). Toxicity was evaluated by determination of concentrations for some heavy metals (by AAS method) and determination of some pesticides (HPLC). In order to be compared, extracts were evaporated under vacuum (Laborota 4000, Heildorf) and finally, were putted in 10 mL marked flasks.

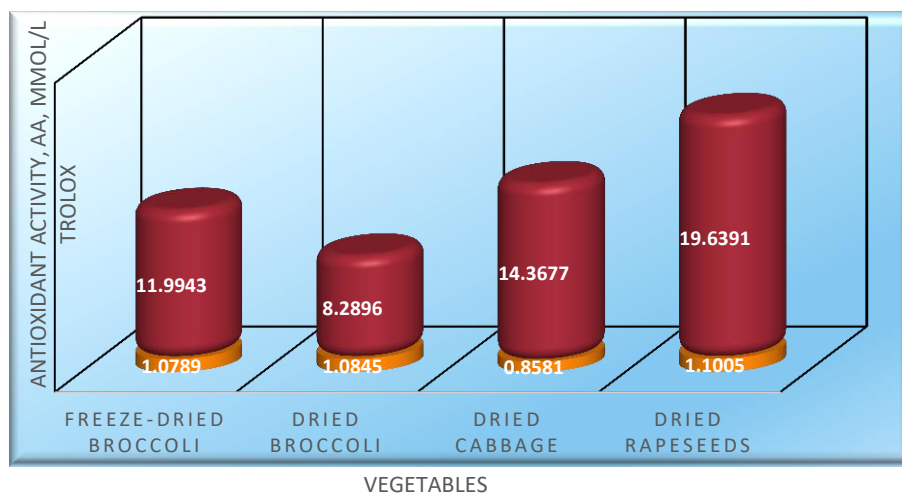


Figure 1. Antioxidant activity of extracts from some Brassicaceae (blue- DPPH; red-FRAP)

The best method for extraction of biological active compounds from cabbage, broccoli and rapeseeds, was microwave technique. Ethanol or ethanol 70% was the solvent choose because the extracts are destined to alternative medicine, pharmacy and food industry.

Acknowledgements

This work is part of the project PN 19 22 03 01 / 2019 “Supramolecular inclusion complexes of some natural and synthetic compounds with health applications”, carried out under NUCLEU Program funded by National Authority for Scientific Research (Romania).

References

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