

SCREENING ON ANTIOXIDANT PROPERTIES OF ETHANOLIC EXTRACTS OF *CAPSICUM* SPECIES BY FRAP ASSAY AND PROSPECTIVE VOLTAMMETRIC METHODS

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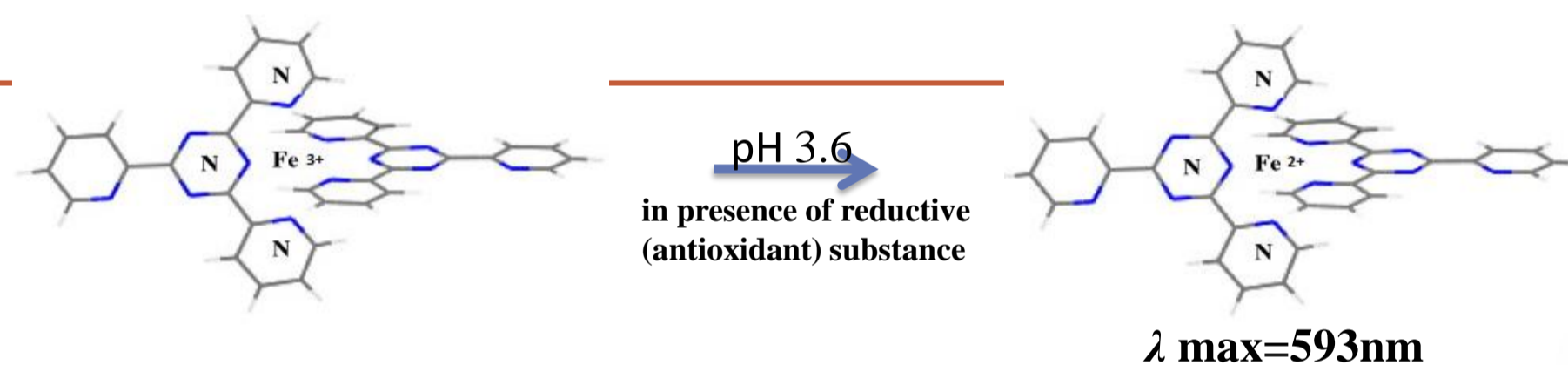
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Introduction

- The genus *Capsicum* (pepper) comprises a large number of wild and cultivated species. These plants are grown all over the world, and there are many species from this genus cultivated in R. of Macedonia. The fruits are an excellent source of health-related compounds, such as ascorbic acid (vitamin C), carotenoids (provitamin A), tocopherols (vitamin E), flavonoids and capsaicinoids (mainly capsaicin), which are showing high antioxidative properties, according to the literature.

Materials and methods

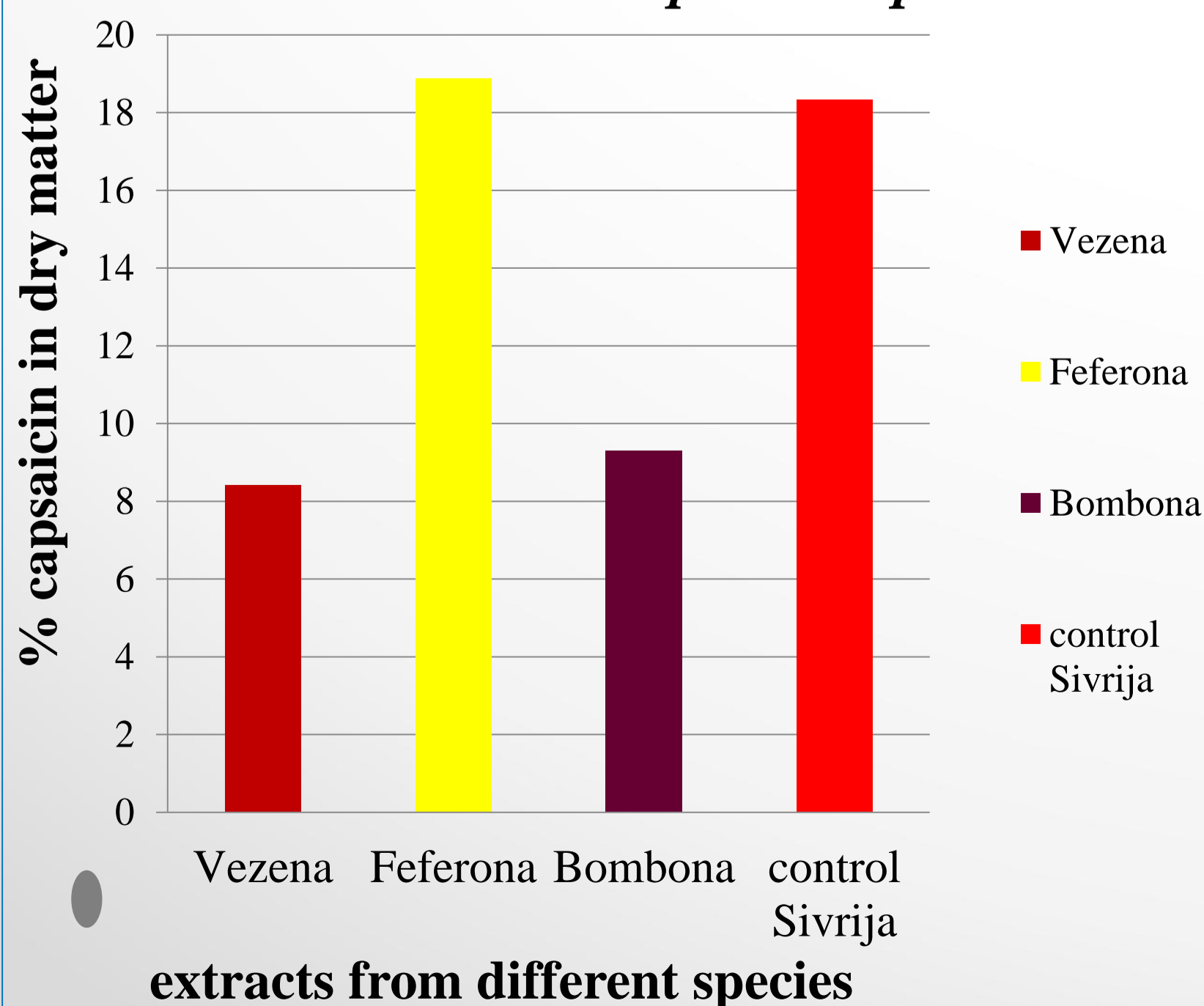
- The total antioxidant capacity of ethanolic extracts of 4 different species of *Capsicum annuum*. Spectrophotometry has been used for the quantification of the capsaicin present in the extracts.
- The total antioxidant potential present in these extracts has been assessed by the FRAP (Ferric reducing antioxidant power) assay and the relative order of antioxidant potential has been established.



Results and Conclusion

- In order to confirm these results and to choose better and easier method for screening of total antioxidant potential this examination can be made by voltammetry techniques, and this is planned as further investigation.
- This antioxidative potential of capsaicin can be used as additional positive effect on the cells membrane, especially on the cells where TRPV1 receptor is expressed and capsaicin is showing its pharmacological activity.

Concentration of capsaicin in extracts from *Capsicum sp.*



Results

Total antioxidant capacity of ethanolic extracts of *Capsicum sp.*

