

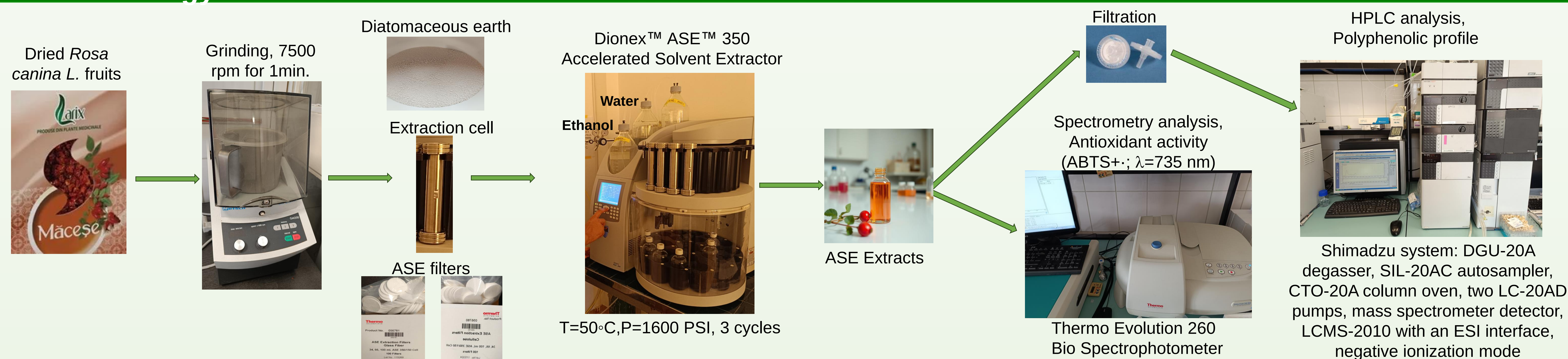
APPLICATION OF ACCELERATED SOLVENT EXTRACTION IN EVALUATION OF *ROSA CANINA L.* ANTIOXIDANT CAPACITY

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Objectives

- Developing green extraction method (Accelerated Solvent Extraction (ASE)) to valorize polyphenolic compounds from *Rosa canina L.* hips
- Evaluation of efficiency extraction method

Methodology



Results

Composition of *Rosa canina L.* (fruits without seeds) hydro-alcoholic extracts (HPLC analysis):

Kaempferol (KMP); Rutin (RTN); Quercetin (QCT); Quercetin 3-β-D-glucoside (Q3G); Quercitrin (QUE); Gallic acid (GLA); Ellagic acid (EGA); Chlorogenic acid (CGA); Catechin (CAT)

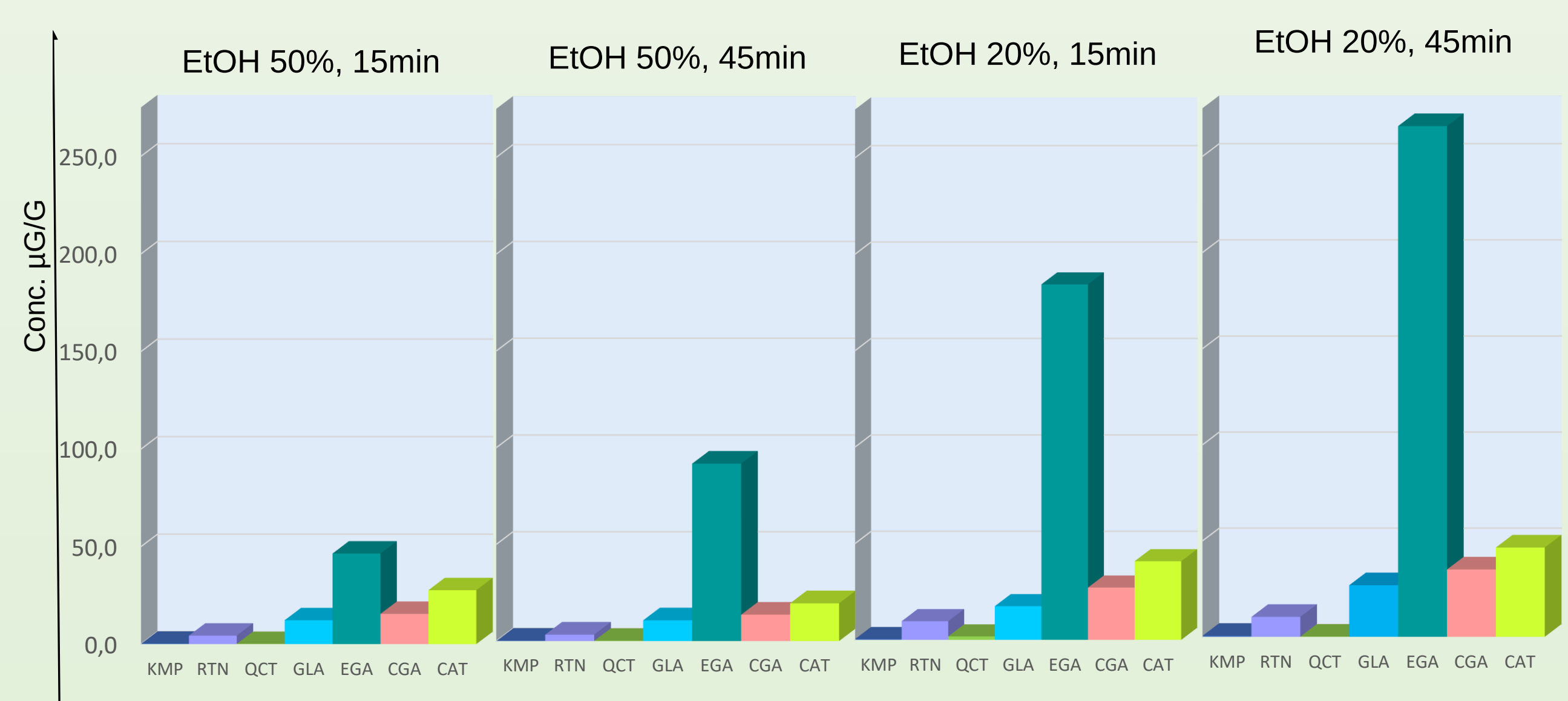


Fig.1. The polyphenolic profile of fruits extracts, for the same quantity of the samples (5G) and different extraction parameters

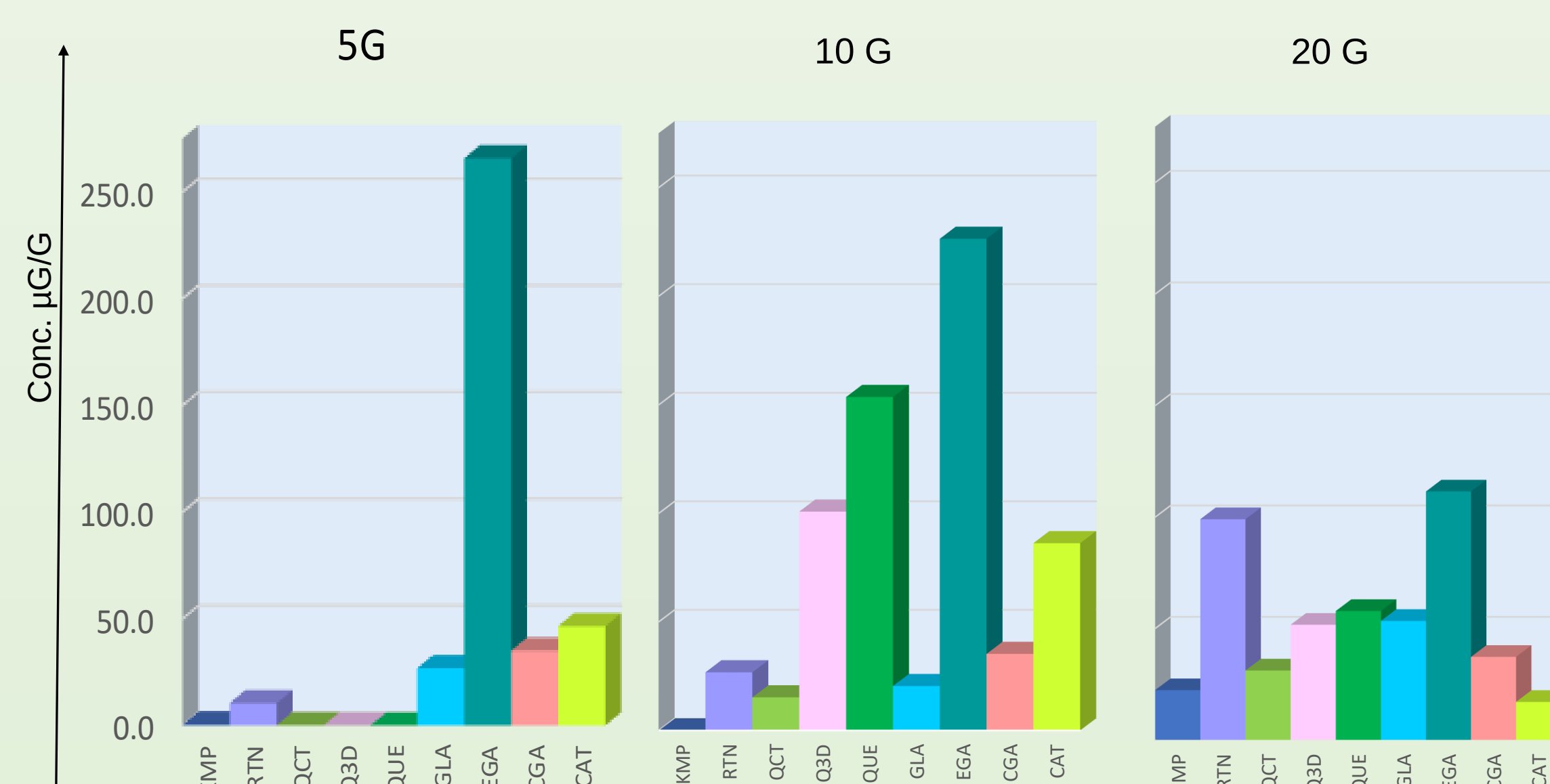


Fig.2. The polyphenolic profile of fruits extracts, for the same extraction solvent (ethanol 20%)

Antioxidant activity of *Rosa canina L.* (fruits without seeds) hydro-alcoholic extracts (ABTS protocol)

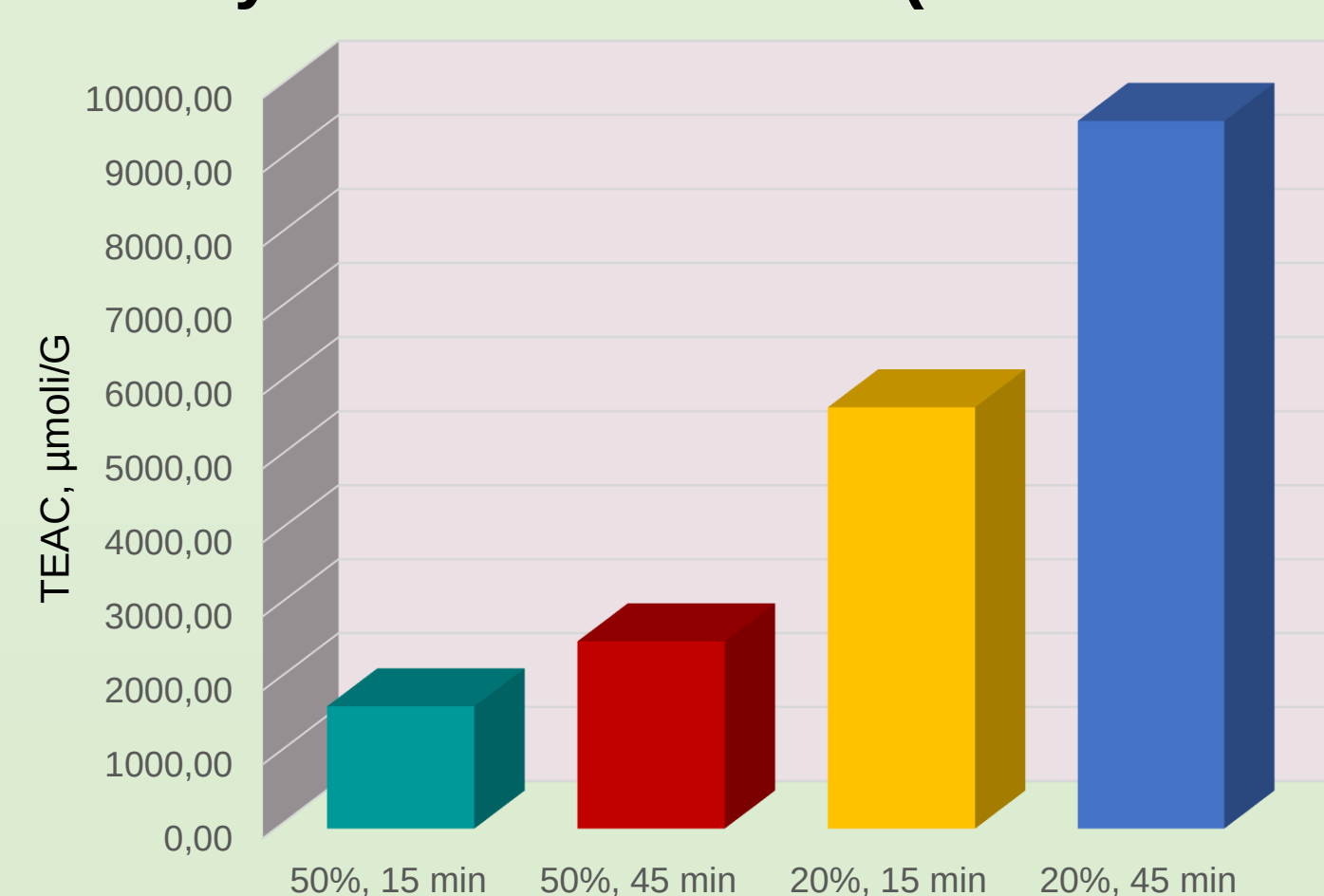


Fig.3. The antioxidant activity of fruits extracts, for the same quantity of the samples (5G)

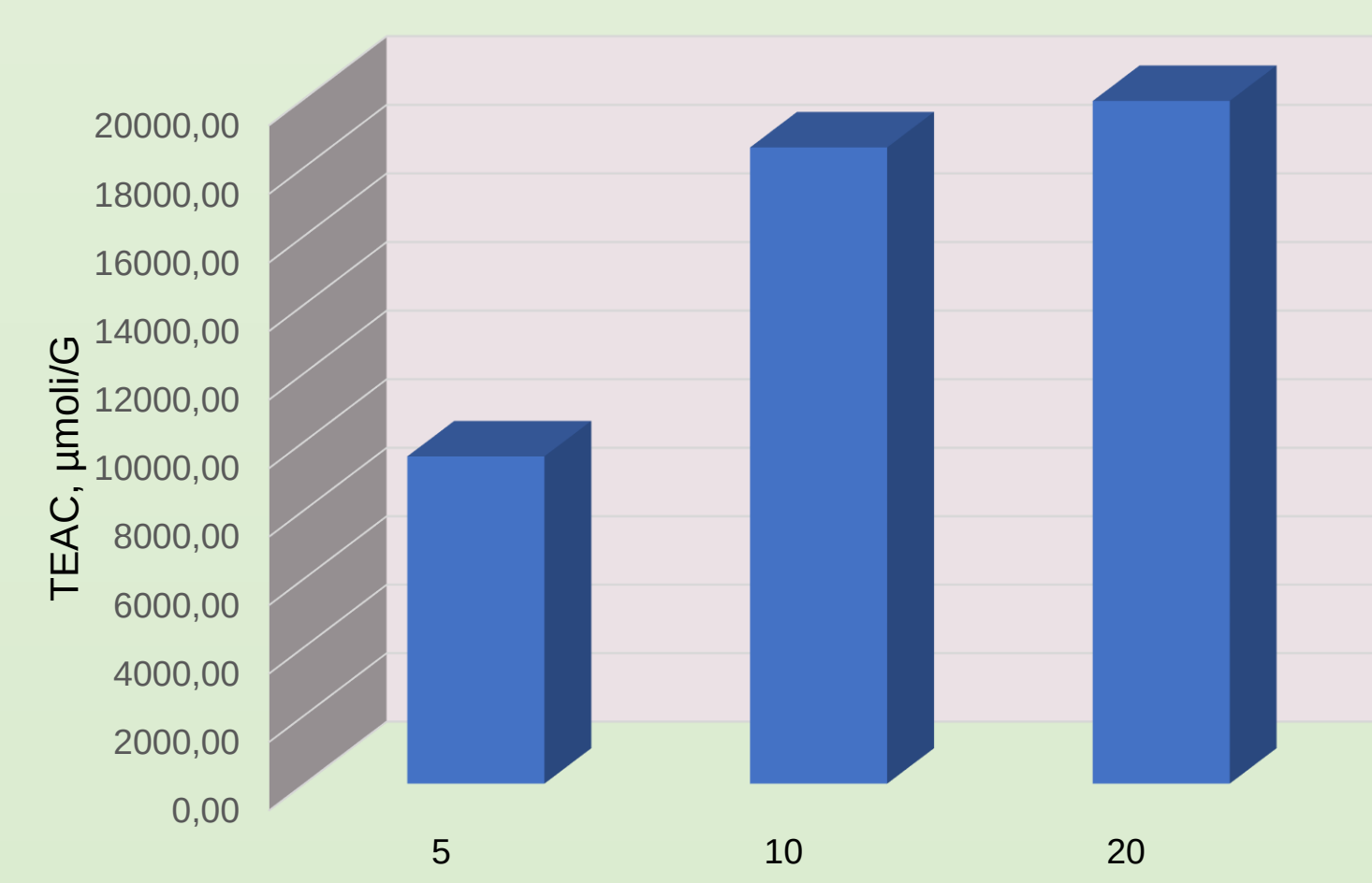
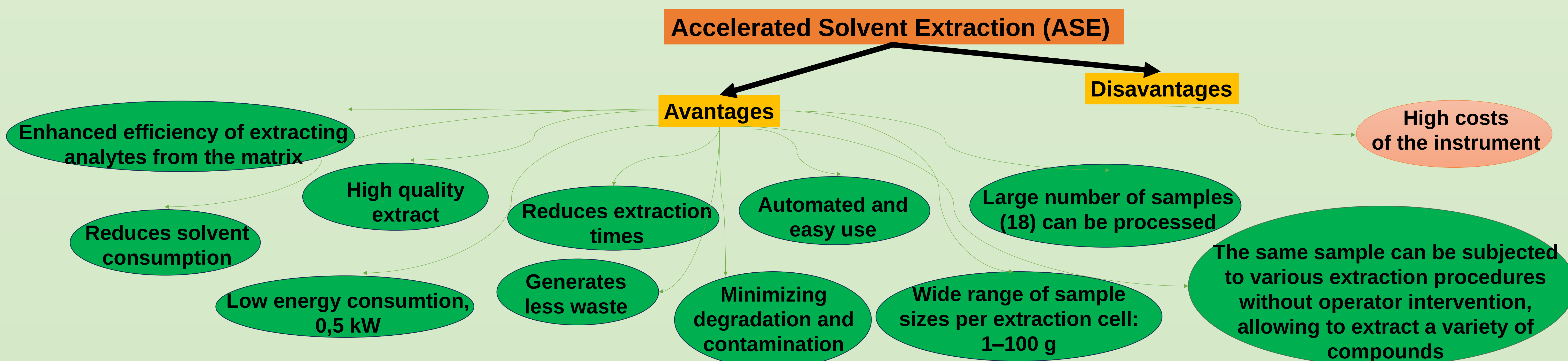


Fig.4. The antioxidant activity of fruits extracts, in ethanol 20% after 45 min.

Significance of the work



❖ A compromise must be made when choosing the optimal operational parameters so that the extraction procedures be as feasible as possible from all point of view.

Acknowledgment

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