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BOOK OF ABSTRACTS

Bioactive properties of phenolic compounds in Physalis fruits

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Physalis or cape gooseberry (*Physalis peruviana* L.) is believed to be rich in phenolic compounds, which are synthesized in plant tissues as a response to stress, and many of these compounds have biological properties with putative health benefits. The present work intended to study some bioactive properties of physalis related to the total phenolic compounds content and antioxidant activity, as well as their bioaccessibility along the gastrointestinal tract, by using *in vitro* enzymatic simulators. Physalis fruits were submitted to extraction, following three methods with different combinations of solvents, which were then analysed for total phenols, antioxidant activity and bioaccessibility. The results showed that the bioaccessibility of total phenols was reduced when reaching the intestine to about half of the original amount, while the bioaccessibility of antioxidant activity was reduced to only one fourth also when reaching the intestine. Some differences were observed for different extracts but not when the sample was used fresh or freeze-dried. In conclusion, these ratios have to be considered when expecting bioactivities through the ingestion of physalis fruits.

Keywords: *Physalis peruviana*, extraction, phenolic compounds, antioxidant activity