

**UJUP<sup>14</sup>**

7º ENCONTRO DE INVESTIGAÇÃO JOVEM DA U.PORTO

**U.PORTO**

# CREDITS

## LIVRO DE RESUMOS IJUP'14

7º ENCONTRO  
DE INVESTIGAÇÃO  
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## Carotenoids content of cherry tomato fruits: A comparative study

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Consumption of cherry tomato fruits has been increasing due to the rising public demand for convenience and awareness of fruit's health benefits. Carotenoids, natural pigments synthesized by plants and microorganisms but not by animals, contribute to the different colours of tomato fruits and are recognized as playing an important role in several biological functions [1].

In this work, we studied some carotenoid contents (chlorophyll a, chlorophyll b, lycopene and  $\beta$ -carotene) of five cherry tomato cultivars (*red cherry chucha*, *red cherry*, *striped cherry*, *yellow cherry*, and *red cherry cacho*). Measurements were performed spectrophotometrically according to Vinha *et al.* [2].

Quantitative chemical differences were observed among all cherry tomato cultivars ( $p < 0.05$ ). Higher lycopene amounts were found in *red cherry* tomatoes, whereas  $\beta$ -carotene presented the highest value in *yellow cherry* tomatoes. Chlorophyll a and chlorophyll b contents were inversely correlated with lycopene and  $\beta$ -carotene levels. *Striped cherry* cultivar was the only one that presented similar values of chlorophylls, lycopene and  $\beta$ -carotene contents.

In conclusion, these preliminary results showed that tomato carotenoids levels depends mostly on the cultivars.

### References:

[1] Rao, A.V. and Rao, L.G. (2007), *Carotenoids and human health*, Pharmacological Research, 55, 207-216.

[2] Vinha, A.F., Alves, R.C., Barreira, S.V.P., Castro, A., Costa, A.S.G., Oliveira, M.B.P.P. (2014), *Effect of peel and seed removal on the nutritional value and antioxidant activity of tomato (Lycopersicon esculentum L.) fruits*. LWT – Food Science and Technology, 55(1), 197-202.

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