

## Food Chem : 新发现！桔子汁抗氧化活性是传统认知的10倍以上

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### Nutritional and physicochemical characteristic of commercial Spanish citrus juices

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Citrus juices are perceived as healthy foods by consumers due to their richness in antioxidant compounds. Despite the large number of papers about the antioxidant activity of citrus juices, less is known about the relationship with physicochemical properties. This paper shows that the overall antioxidant activity of citrus juices is underestimated with the standard methodologies, being up to 10-times higher with the GAR method (including an in vitro gastrointestinal digestion). 70% of the antioxidant activity was found in the soluble fraction and citrus juices contributed up to 12% of the overall antioxidant intake within the Spanish diet. Physicochemical parameters, such as colour, fluorescence, 5-hydroxymethylfurfural and furfural contents, were correlated with nutritional parameters in some samples. The intake of HMF was negligible from commercial citrus juices and was absent in freshly squeezed ones. Finally, a mathematical model is developed to classify juices depending on their nature or storage conditions.

