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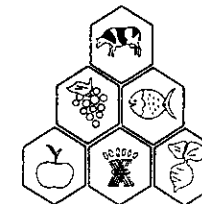
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# Qualidade, Segurança & Inovação

Actas do 5º Encontro de Química de Alimentos

Universidade Católica Portuguesa  
Escola Superior de Biotecnologia

Sociedade Portuguesa de Química

#### APOIOS:

Programa Operacional Ciência, Tecnologia,  
Inovação (Quadro Comunitário de Apoio III)  
FCT (Fundação para a Ciência e Tecnologia),  
no âmbito do Programa FACC  
(Fundo de Apoio à Comunidade Científica)

## Effects of controlled atmosphere (ca) storage on pectinmethylesterase (PME) activiy on texture of "Rocha" pear

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### Abstract

Firmness and pectinmethylesterase (PME) activity were evaluated in pears (cv. Rocha) after nine months of storage in controlled atmosphere (CA) and after different periods of exposure to air at room temperature. The free calcium content was also evaluated in tissues. The firmness decreased along the time of exposure at room temperature for all four different CA conditions tested. After nine days of exposure to 2 % O<sub>2</sub> + 1.5 % CO<sub>2</sub>, fruits presented tendency to lower firmness in opposition to the control (fruits stored in air). PME activity increased and had tendency to be higher for the fruits from that same CA storage composition after the same period of exposure. Fruits from 1.5 % CO<sub>2</sub> atmospheres presented tendency to higher Ca<sub>2</sub><sup>+</sup> ions along the time of exposure at room temperature. In spite of a normal textural change being noticed along the time of exposure to air at room temperature, it seems that the underlying rnetabolisms was affected by CA storage.

### Keywords:

Controlled atmosphere, CA, Pear, Firmness, Texture, Pectinmethylesterase, PME, Calcium.