

Title Physiological basis of UV-C induced resistance to *Botrytis cinerea* in tomato fruit IV.
Biochemical modification of structural barriers

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Abstract

The biochemical nature of cell wall modifications induced by UV-C in postharvest tomato fruit was investigated using histochemical techniques. UV-C treatment with hormic dose of 3.7 kJ/m^2 stimulated the biosynthesis of phenolic compounds in the epicarp and mesocarp cells. Biochemical reinforcement of the cell wall through lignification and suberization was also induced. These responses, originating from the activation of the phenylpropanoid pathway were principally localized in the cell wall stacking zone induced by UV treatment and were set in place before inoculation by *Botrytis cinerea*. The intensity of these responses was significantly increased in UV-treated tissue in response to infection. These responses were also induced in the inoculated untreated fruit but they were either small (phenolics, lignification and suberization) or delayed (suberization).