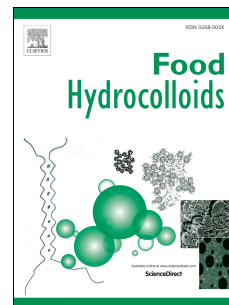


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Introduction and characterization of charged functional domains into an esterified pectic homogalacturonan by a citrus pectin methylesterase and comparison of its modes of action to other pectin methylesterase isozymes

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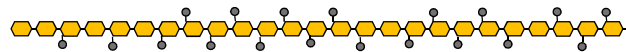
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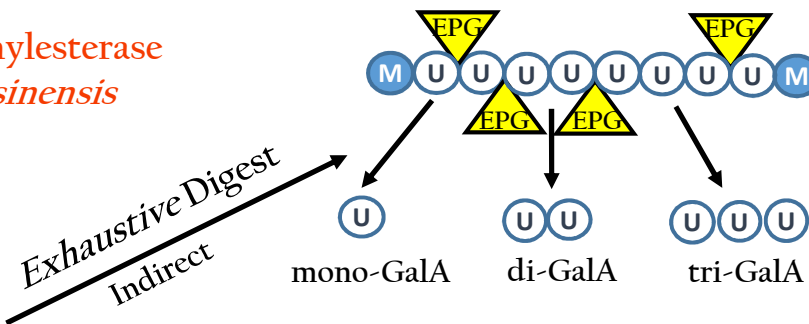
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Model Homogalacturonan DM91



Galacturonic acid O-Methyl

NB pectin methylesterase
from *Citrus sinensis*



Endo-polygalacturonase M2

Limited Digest Direct



Oligo-GalAs with various DPs
quantified with HPLC-ELSD

Unmethylesterified GalA
Methylesterified GalA

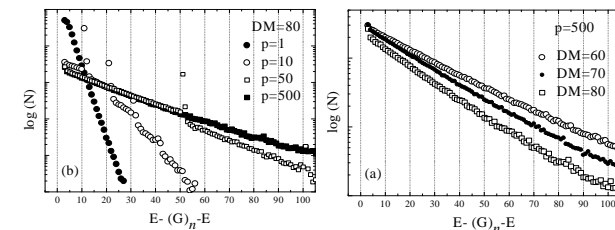
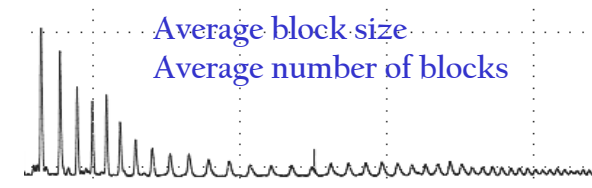
Degree of Blockiness (DB)

$$= \frac{(\text{Mono} + \text{Di} + \text{Tri GalA}) \times 100}{\text{Free GalA}}$$

Absolute Degree of Blockiness (DB_{abs})

$$= \frac{(\text{Mono} + \text{Di} + \text{Tri GalA}) \times 100}{\text{Total GalA}}$$

Correlation



Mode of demethylesterification
modeled *in silico*

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