Ascorbic Acid in Orange Juice

Instrument: Hitachi Elite LaChrom HPLC system

Conditions

Column:	Spherisorb S5 ODS2, 250 x 4.6 mm ID
Guard:	50 x 4.6 mm ID
Temperature:	30°C
Mobile Phase:	0.1 M sodium acetate containing 0.4 mM disodium DETA and 1 mM octylamine:methanol (90:10) - degassed
Flow Rate:	0.8 ml/min

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Sample Preparation

Dilute juice 1:100 with 0.05 M perchloric acid
Ultrasonicate solution for five minutes
Filter solution (0.2 micron)
Further dilutions should be made with mobile phase, if necessary.
Inject 20 µl.

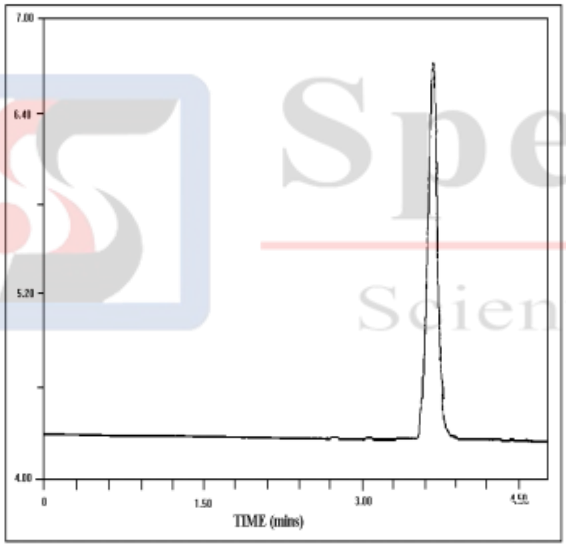

Figure 1 *Ascorbic acid standard*

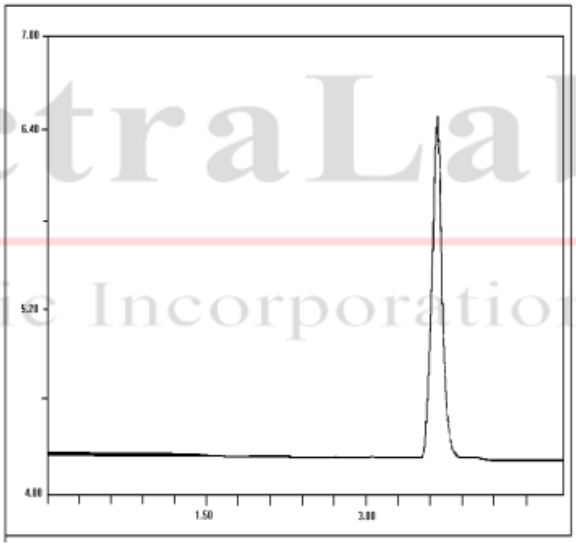

Figure 2 *Commercial orange juice*

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Reference:

1. http://www.gbcscientific.com/appnotes/HPLC_app_note_032.pdf
2. Principles of Biochemistry', by White, Handler and Smith, p. 973 (McGraw-Hill, 1964).