



International Aloe Science Council, Inc.

ALOE VERA ANALYSIS

HIGH PRESSURE LIQUID CHROMATOGRAPHY

BONDED AMINE ASSAY

1. REAGENTS:

- A. Potassium Phosphate Buffer 0.05 M KH_2PO_4
- B. Acetonitrile, HPLC grade
- C. Mobile Phase, Acetonitrile/0.05 M KH_2PO_4 , 70%/30%

2. INSTRUMENT CONDITIONS:

- A. Liquid Chromatograph with a detection wavelength of 205 nm.
- B. Spherisorb NH_2 5 μm , 250 X 4.6mm (ALLTECH)
- C. Column Temperature 40°C
- D. Solvent Flow Rate, 1 ml/minute
- E. Isocratic Mobile Phase

3. PROCEDURE:

- A. Stabilize column for 120 minutes with mobile phase prior to running.
- B. Filter 1 ml of aloe sample through a 0.45 μm filter
- C. Inject 20 μl into the HPLC
- D. Run time is up to 60 minutes depending on column efficiency

4. STANDARD REFERENCE SAMPLE:

A purified "E" peak can be obtained by writing to:
Aloe Research Foundation
P.O. Box 252 UTMB
Galveston, Texas 77550
U.S.A.

5. LOCATION OF "E" PEAK IN PRODUCTS: *Depends upon age of the column.

- A. Raw Aloe Vera Gel "E" peak comes off at approximately 14.58 minutes.
- B. Processed 100% Aloe Vera Gel liquids "E" peak comes off at approximately 12.63 minutes.
- C. Spray Dried Aloe Powder "E" peak comes off at approximately 13.75 minutes.

6. REFERENCE HPLC SCANS LOCATED ON REVERSE SIDE OF ANALYSIS

