

**VALIDASI METODE PENETAPAN KADAR VITAMIN LARUT LEMAK DAN
VITAMIN LARUT AIR SECARA SIMULTAN DENGAN METODE KCKT
LAYLA HIDAYATUS S.**

Drs. Herra Studiawan, Apt., MS

KKB KK FF 279 11 Hid v.

ABSTRACT

Fat- and water- soluble vitamins were separated on ACE C18 column (150mm x 4,6 mm, 3 μm particle size) in a single run using combined isocratic and linear gradien elution with a mobile phase consisting of 0,010% trifluoroacetic acid of pH 3,9 (solvent A) and methanol (solvent B). A linear gradient profile (A:B) started at 88:12 at the flow rate 0,5 ml min^{-1} and held for the first 4 mins, then decreased up to 2:98 at the flow rate 0,6 ml min^{-1} during the next 7 mins, held for next 6 mins, increased up to 0:100 at the flow rate 0,7 ml min^{-1} in 2 mins, and held on until a total analysis time of 29 min and finally linearly increased up to 88:12 to reach initial conditions. The most suitable wavelength for simultaneous vitamin determination was 280 nm. The method was applied for the emulsion sample of pharmaceutical preparation (multi-vitamin). The result were in good agreement with the declared values.

Keyword: Simultaneous determination; Vitamins; Fat- and water-soluble vitamins; High-performance liquid chromatography.