

〈原 著〉

高速液体クロマトグラフィーによる化粧品中の
塩酸ピリドキシン, アスコルビン酸及びその誘導体の分析法
(化粧品の迅速簡易分析法第6報)

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**Analysis of Pyridoxine Hydrochloride, Ascorbic Acid and its Derivatives
in Cosmetics and Quasi-drugs by High-performance Liquid Chromatography
(Simple and Rapid Analysis of Cosmetics and Quasi-drugs (6))**

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Abstracts

Analysis of pyridoxine hydrochloride (Py-Cl), Ascorbic acid (VC), Magnesium L-ascorbyl 2-phosphate (VC-PMg), Ascorbyl palmitate (VC-PA) and Ascorbyl stearate (VC-ST) in cosmetics and quasi-drugs were performed by High Performance Liquid Chromatography (HPLC) under several different conditions optimized for individual ingredients.

These methods consist of simple extraction or dissolution of the samples followed by quantification by HPLC.

HPLC conditions; Column, ODS silica gel column, Mobile phase, (Py-Cl) 1.5 mM n-pentanesulfonic acid sodium salt/CH₃CN:H₂O (10:90) (pH2.5 with H₃PO₄). (VC) ① 0.01M KH₂PO₄ (pH2.5 with H₃PO₄) ② (n-Hexylamine 0.15g/20ml CH₃OH): (Sodium acetate 7.5g): (EDTA-2Na 0.04g)/H₂O 1000 ml (pH 5.0 with CH₃COOH), (VC-PMg) (tri-n-octylamine 2g + CH₃COOH 4g/CH₃CN 500 ml): (EDTA-2Na 1g/H₂O 500 ml). (VT-ST) (VC-PA) ① 0.01 M KH₂PO₄:CH₃CN(1:9) (pH2.5 with H₃PO₄) ② CH₃CN:H₂O:CH₃COOH (85:14:1).

The recoveries of the ingredients added to the model products at level of 0.01-0.05% (Py-Cl), 3% (VC, VC-PMg, VC-ST, VC-PA) were not less than 90% and not more than 110%.

Keywords: High performance liquid Chromatography; Pyridoxine hydrochloride; Ascorbic acid; Magnesium L-ascorbyl 2-phosphate; Ascorbyl palmitate, Ascorbyl stearate; Cosmetic; Quasi-drug.