QUANTITATIVE STUDY OF PERCENTAGE HYDROQUINONE IN COSMETIC PRODUCTS USING HPLC AND UVDS METHODS

NURUL WIHDAH BINTI MOHD ZUKEPLI

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ABSTRACT

QUANTITATIVE STUDY OF PERCENTAGE OF HYDROQUINONE IN COSMETIC PRODUCTS USING HPLC AND UVDS

There are few techniques in determine HQ concentration present in cream. In this study the technique used was by high-performance liquid chromatography (HPLC) and also Ultra-Violet Visible Detector Spectrometry (UVDS). In HPLC analysis, there are three types of mobile phase was used. Each of mobile phase gave different result in retention time and also peak types. Thus, the best composition of mobile phase was in ratio of 20:80 (methanol: water). This is because of it produce the most sharp peak and also the value of retention time is good, even though it was not the fastest time in analysis of HQ in samples, but it was not the slowest. In UVDS analysis, the blank solution used was distilled water. In UVDS analysis, it allows a low cost quantitative determination of HQ. From this study, the concentration range of HQ detected was 4 to 7 ppm with the regression equation $y= 0.00924x + 0.0491$.