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Analysis of cephalosporin antibiotics in the pharmaceutical dosage forms using ultra performance liquid chromatography instrument

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Cephalosporins are bactericidal antibiotics that inhibit cell wall synthesis of bacteria. Now, four generations of cephalosporins are Gavailable in pharmaceutical dosage forms. UPLC is a new category of analytical separation science that retains the practicality and principles of HPLC, while increasing the overall interlaced attributes of speed, sensitivity and resolution. The resulting chromatograms were recorded and the chromatographic parameters such as capacity factor, asymmetric factor, and resolution and column efficiency were calculated. The condition that gave the best resolution, symmetry and capacity factor was selected for estimation. UPLC improves in three areas such as chromatographic resolution, speed and sensitivity analysis. Smaller particles provide not only increased efficiency, but also the ability to work at increased linear velocity without a loss of efficiency, providing both resolution and speed. Hence, this technique has gained considerable attention in recent days for pharmaceutical analysis.

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