THE LIMIT OF DETECTION AND LIMIT OF QUANTIFICATION - THE BASIC STEPS IN A PROTOCOL FOR VALIDATION OF METHODS FOR THE ANALYSIS OF RESIDUES

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Abstract

The first experimental step in the validation of an analytical method is the set up for the detection limit (LOD). The modern methods of limit detection are values statistical determined, which define the degree for an analytical method can separate a specific chemical substance from the background noise. A common mistake is to considerate the method detection limit as the lowest concentration which can be measured. Actually, it is the concentration on which we can decide if an element is present or not (with an certain trust degree). The detection limits depends on the matrix, the equipment, the analyst and needs an analytical procedure well-done. Commission decision (2002/657/EC), of 12 august 2002, implementing Council Directive 96/23/EC concerning the performance of analytical methods and the interpretation of results.

Key words: (limit of detection, limit of quantification, residue analysis)