The Use of Separation Techniques in the Analysis of Some Antiepileptic Drugs: A Critical Review

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Abstract:

In the last few decades, many new antiepileptic drugs came out to medicine world, and their use was expanded over a wide range of cases. Analysts from all over the world developed many different separation methods for the determination of these drugs in a quantitative way either in pharmaceutical dosage forms or in biological fluids. In this review article, a summation of previously published separation methods including high-performance thin-layer chromatography, high-performance liquid chromatography, gas chromatography, and electrophoresis used for the determination of eslicarbazepine acetate, levetiracetam, lacosamide, oxcarbazepine, pregabalin, and retigabine are presented. These six drugs are the most commonly used drugs for the treatment of patients diagnosed with partial onset seizures. This article can help researchers and analysts to build upon this knowledge and add further methods of analysis in the future.

Keywords:

Analysis; antiepileptic drugs; biological fluids; partial onset seizures; pharmaceutical dosage forms; separation methods

Published In: