DERIVATIZATION REAGENTS FOR NEGATIVE MODE LC-MS

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Liquid chromatography coupled to mass spectrometry (LC-MS) is a very flexible analytical technique that allows to analyze different analytes in a wide range of matrices [1-3]. Matrix effect is one of the main problems when LC-MS is used. Different approaches have been used to overcome the problem of matrix effect. Derivatization of analytes is a good option that improves not only chromatographic retention and selectivity but also LoD/LoQ, which can lead to lesser matrix effects

Previous studies carried out to determine the content of amino acids in different matrices have shown that analysis with LC-MS/MS using negative ionization mode, produces cleaner chromatograms [4-5]. Nevertheless, the lack of derivatization reagents designed for negative ion mode, makes in-depth study of this phenomenon difficult.

In this study negative ESI mode LC-MS analysis of derivatives of some amino-compounds is carried out. Comparison with positive ESI mode is made with respect LoD/LoQ and matrix effects.

References

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