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 analyse different analytes in a big variety of matrices [1-3]. One of its biggest disadvantages is the susceptibility to matrix effects. There are different approaches that can been used to overcome this problem. Derivatization of analytes is a good alternative that improves not only chromatographic retention and selectivity as well as LoD/LoQ, which altogether pave the road to reduce matrix effects.

Previous studies have shown that LC-MS/MS analysis using negative ionizaton mode, produces cleaner chromatograms [4-5]. In this study, a derivatization method was developed using novel derivatization reagents based on azo-benzene. Amino acids derivatives were analysed in positive and negative ionization modes and MS/MS fragmentation patterns were studied.

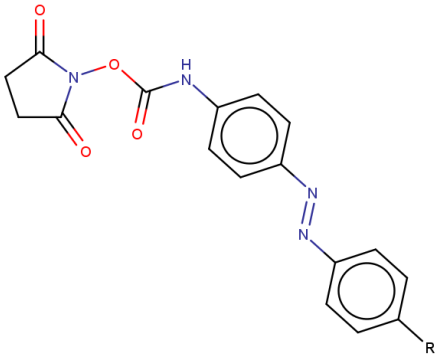

Figure 1. Generic structure of azo-benzene derivatization reagents.

References

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