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Capillary Electrophoresis coupled to timsTOF Mass Spectrometry using the nanoCEasy interface

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Though ion mobility MS has been developing to a well-known technology, it is rarely coupled to capillary electrophoresis (CE) so far. Both, CE and separate ions according to their IM, electrophoretic mobility, i.e. their charge-to-size ratio, however CE separating solvated ions whereas IM separates ions in the gas phase. Furthermore, in CE, separation efficiency and peak capacity is typically much higher than in IM making the coupling of both separation techniques attractive. In recent years innovative coupling technology of CE to MS has been developed. We recently introduced the nanoCEasy interface, an easy-to-use, robust and flexible interface with nanoESI sensitivity



nanoCEasy: An Easy, Flexible, and Robust Nanoflow Sheath Liquid Printed Parts chlecht,[§] Alexander Stolz,[§] Adrian Hofmann, Lukas Gerstung, and Christian Neusüß*

RESEARCH ARTICLE





Fig. 1: separation of HELA digest: 65cm fused silica (i.d. 50µm; o.d. 365µm) BGE: 1M formic acid + 10% IPA in water; 30kV; 7.86% CapFill; SL: IPA:H₂O: 1:1 + 0,5% formic acid



