

Poster

Nanoparticles Separation Using Capillary Electrophoresis

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Capillary electrophoresis (CE) is an analytical technique that separates analytes based on their electrophoretic mobility with the use of an applied voltage.

Nanoparticles separation using CE exhibits good separation and analysis efficiency, especially for nanoparticles smaller than 30 nm. The coupling of CE with inductively coupled plasma mass spectrometry (ICP-MS) provides the possibility to detect nanoparticles in the concentration range of nanograms per litre and enables the simultaneous detection of nanoparticles and its ionic counter parts.^{[1][2]}

Our objective is to develop a fast and reliable separation method for differently modified nanoparticles using capillary electrophoresis.

References

[1] Franze, B.; Engelhard, C. *Analytical Chemistry* 2014, 86 (12), 5713-5720.

[2] Qu, H. O.; Mudalige, T. K.; Linder, S. W. *Analytical Chemistry* 2014, 86 (23), 11620-11627.