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## Green capillary electrophoretic stacking of analytes by ionic liquid collapse and its application coupled with ionic liquid based ultrasound assisted liquid extraction to acrylamides determination

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The analysis of analytes is considered one of the most challenges in capillary zone electrophoresis (CE). Fundamental studies on the new green separation of acrylamides by ionic liquid collapse capillary electrophoresis (ILCCE) are presented. The sample solution of the neutral analytes is prepared using ionic liquid 1-butyl-3-methylimidazolium bromide mixed with water as a dissolution solvent in order to increase the conductivity of the sample greater than the BGS. This separation mechanism was used to enrich the sensitivity separation of acrylamides with good resolution. Here, the effect of retention factor of the analyte, conductivity ratio of the sample and BGS, IL concentration in the sample and electrolyte salt concentration in the BGS were examined. A study on the effect of the injection technique to the performance of ILCCE is also presented. The new hyphenation of ILCCE with ionic liquid based ultrasound assisted liquid extraction was successfully applied to the rapid and selective analysis of acrylamide in breads.

### Biography

Deia Abd El-Hady has completed his PhD in Analytical Chemistry from Assiut University, Egypt and joined University of Bologna in Italy. He got Postdoctoral grant by DAAD to study at Technical University of Braunschweig, Germany. Currently, he is working as an Associate Professor in University of Jeddah, Saudi Arabia. He has published more than 50 papers in reputed analytical journals. He was included in the editorial board of several journals.

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