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Separation of hydrophobic amino acid enantiomers in CEC system by molecular imprinting technique

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Capillary electrochromatography (CEC), first described by Pretorius, is a rapidly evolving hybrid technique between CE and LC. Analytes may be separated in CEC by the combined action of partitioning between stationary phase and mobile phase (chromatographic interactions) and by their difference in electrophoretic mobility (movement of solutes by electrical forces). Therefore, CEC usually possess higher efficiency and selectivity as compared with classical CE and LC. The use of CEC for chiral analysis has become popular in recent years due to high separation efficiency. Separation of enantiomers is very important because they may show different biological activities. Many single enantiomers of amino acids were also used for the synthesis of biologically important compounds. In this work, enantiomeric separation by CEC was extensively carried out using chiral monolithic capillary column. In this presentation, we will describe about the monolithic column, which is based on N-methacryloyl-(L)-phenylalanine methyl ester (MAPA) as hydrophobic monomer in CEC system.

Biography

Koray Şarkaya is PhD student from Hacettepe University and has done his PhD studies from Biochromatography and Biodiagnostics Research Group of Hacettepe University. He has been a Research Assistant at the Düzce University since 2009.

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