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Enantioseparation of some antibiotics by liquid chromatography using chiral stationary phases

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The enantioseparation of three antibacterial drugs namely, flumequine, ofloxacin and lomefloxacin using HPLC was optimized on seven polysaccharide-derived chiral stationary phases namely, Chiralpak® IB, Chiralpak® IA, Chiralpak® AD, Chiralcel® OJ, Chiralcel® OD, Chiralcel® OD-H and Chiralcel® OZ-3 and applying different mobile phases in isocratic mode is described. The role of addition of organic additives, were also

investigated. A baseline separation of flumequine, ofloxacin and lomefloxacin enantiomers was achieved. Parameters influencing enantioseparation including mobile phase, organic additive and chemical nature of the chiral selector, was found to be highly influencing on the enantiomeric separation were investigated. Chiral recognition mechanism(s) are also presented.

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