Optimization of Fluorophore-Assisted Carbohydrate Electrophoresis

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Fluorophore-assisted carbohydrate electrophoresis (FACE) is a simple and inexpensive method for separating saccharides. Oligosaccharides were tagged with the charged fluorophore 8-aminonaphthalene-1,3,6-trisulfonate (ANTS), and the reductive amination reactions were essentially complete after approximately 16 h under the given experimental conditions. Saccharide-ANTS adducts were then separated by electrophoresis on 32% C_{ACR}/2.4% C_{BIS} polyacrylamide gel at alkaline pH. This technique doesn't require sophisticated instrumentation and highly trained personnel.

Key words: Fluorophore-Assisted Carbohydrate Electrophoresis, Optimization, Oligosaccharide Derivatives