

THE SPECTRUM COMPACT CE SYSTEM: VERIFICATION TESTING OF FRAGMENT ANALYSIS

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The Spectrum Compact CE System is a four-capillary instrument with touch-screen operation that has been developed as a collaborative project between Promega Corporation and Hitachi High-Technologies Corporation. This instrument features easy to install consumables (capillary cartridge, anode and cathode buffer cartridges and polymer cartridges), being capable of injecting 1-32 samples per run (up to 64 samples per polymer cartridge). Consumables are barcoded for tracking and can be exchanged in a few minutes. The capillary cartridge will support at least 200 injections.

This instrument is capable of detecting 4, 5, and 6-colors with downstream analysis using either GeneMapper® ID-X or GeneMarker® HID Software for Spectrum CE System. It is backwards compatible for all commercially available existing STR systems (Promega, ThermoFisher and Qiagen chemistries) with performance comparable to current capillary electrophoresis instruments (e.g., sensitivity and mixture samples). Total electrophoresis time for fragment analysis is approximately 40-45 minutes. Data will be presented from verification testing of fragment analysis.

Key Words: Spectrum Compact CE System, Fragment Analysis, STR, PowerPlex®