

Waters® Alliance™ LC/MS System



LC/MS Application Notes: Positive and Negative Voltage Switching Kate Yu, Waters Corporation, Milford, MA

Experiment Conditions
Single Ion Monitoring
Calibration Curve

Key Word:

API LC/MS

SIM

Voltage Switching

Pharmaceutical

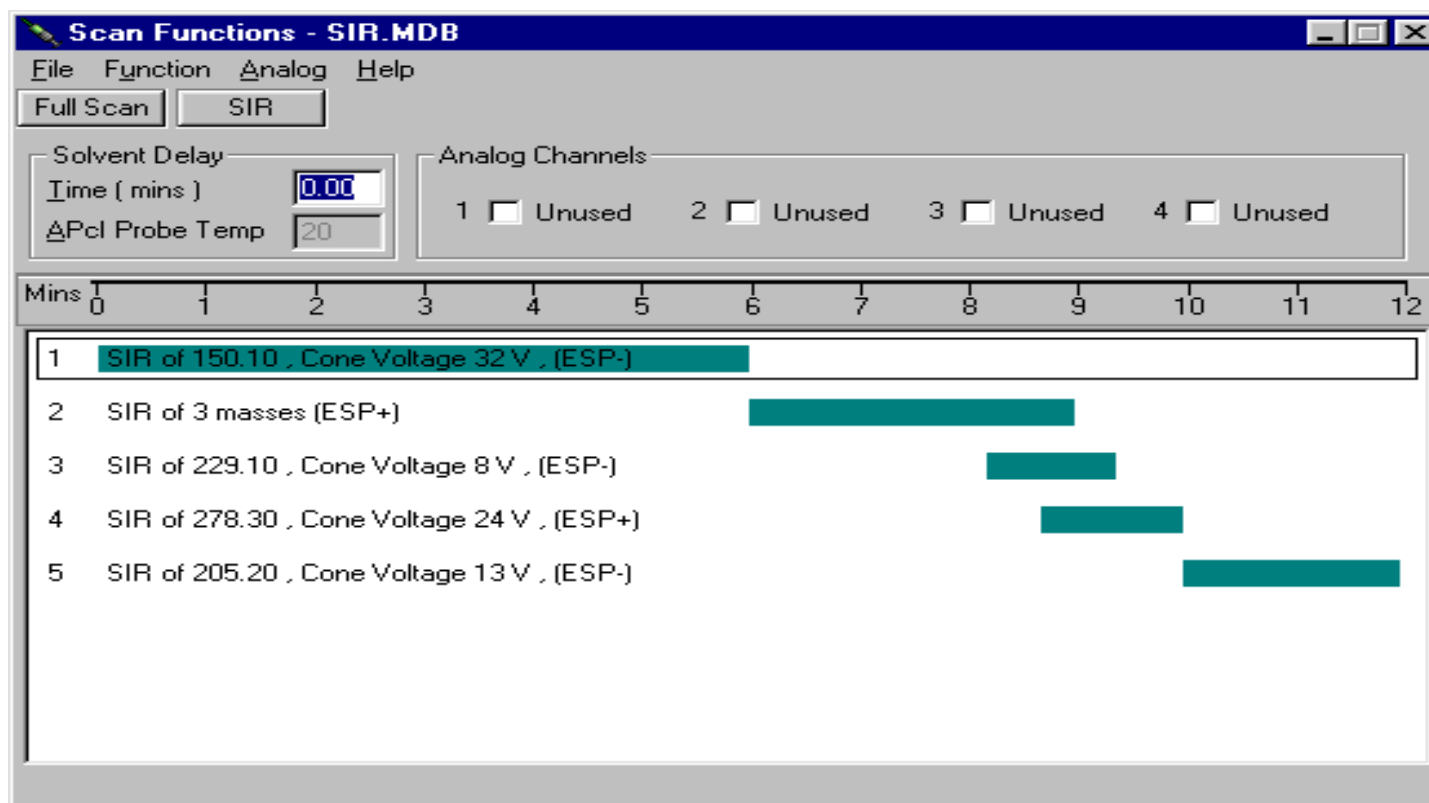
Positive and negative cone switching is a unique feature of MassLynx. Analyte can be analyzed with both positive and negative modes within one injection. This feature can be very convenient for method development. In addition, analysis time can be cut in half for samples need both positive and negative runs.

In this work, a mixture of seven drugs was analyzed by Waters Alliance LC/MS System. Analysis was performed by electrospray. Among the seven analytes, two were detectable by electrospray positive only, two were detectable by electrospray negative only, and three were detectable by both positive and negative. By performing positive and negative cone voltage switching, all seven analytes were analyzed within a 12 minute run. Quantitation of these analytes, utilizing positive and negative cone voltage switching, is demonstrated.

Experiment Conditions

HPLC: Column: Waters Symmetry[®] C₁₈, 3.5 μM, 2.1 x 50 mm
Mobile Phase: AcN/H₂O with 10 mM ammonium acetate in each, pH 5.0
Injection Volume: 10 μL
Flow Rate: 0.3 mL/min.

MS:



SIM Trace and Example Calibration Curves

