Effect of Mixer Volume on Gradient Accuracy with a Constant Flow Rate
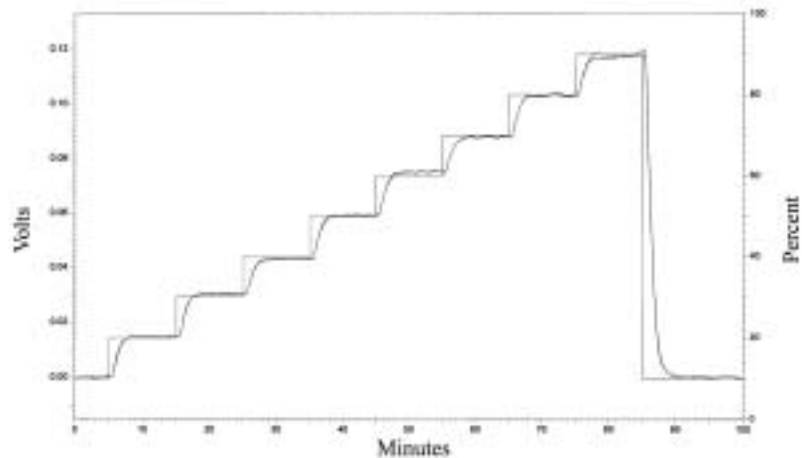
ASI 50 μL mixer, 25 μL/min.
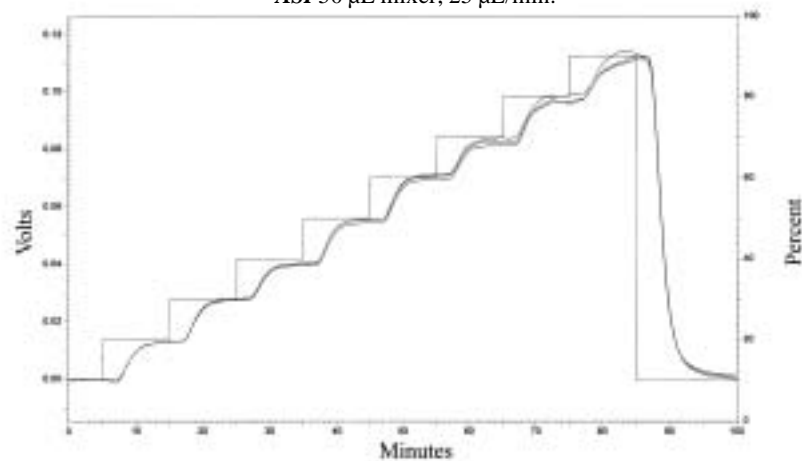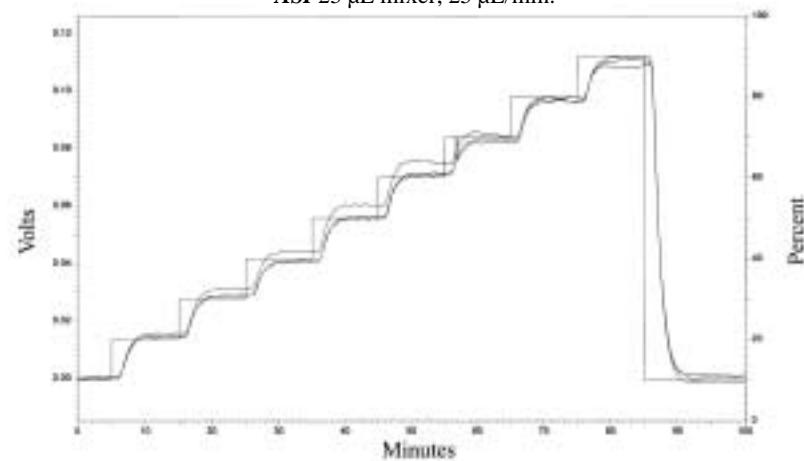
ASI 25 μL mixer, 25 μL/min.

ASI 10 μL mixer, 25 μL/min.

ASI 10 μL mixer, 25 μL/min.

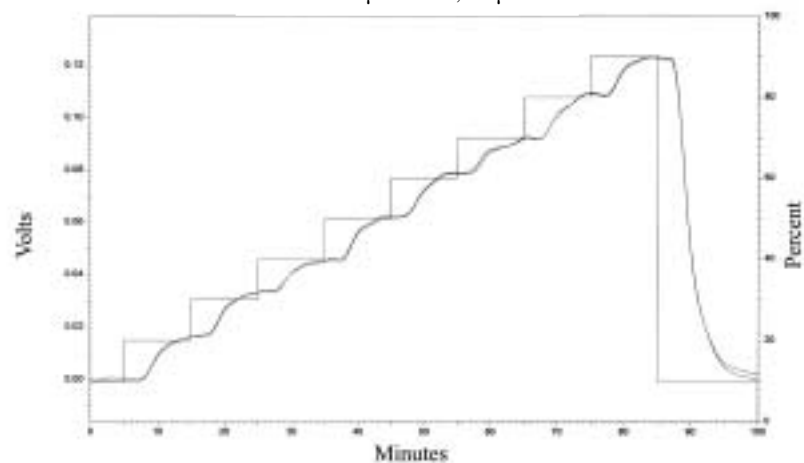Overlay of 5 consecutive runs
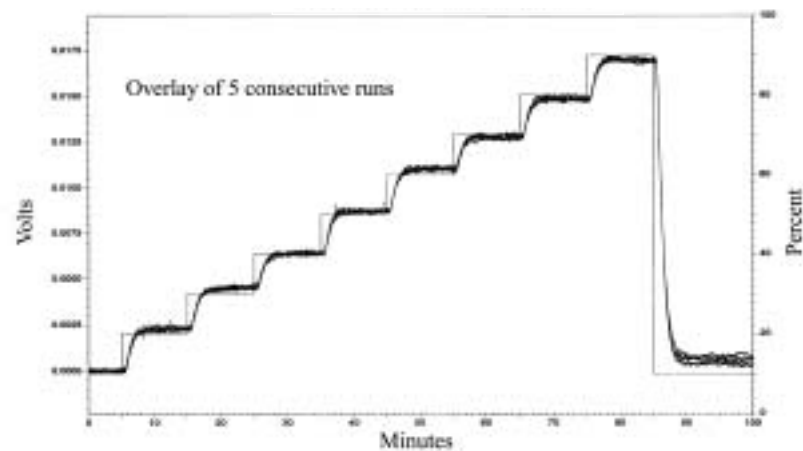
HPLC System configuration:
Shimadzu LC-10ADVP pumps with micro-flow modification
Shimadzu SPD-10AVP UV-VIS detector
Shimadzu Class-VP v5.03 software

HPLC conditions:
Gradient: 10-90% B in 10 min. steps
A = H_2O
B = 0.3% Acetone in H_2O

Effect of Flow Rate on Gradient Accuracy with a Constant Mixing Volume

ASI 25 µL mixer, 10 µL/min.

ASI 25 µL mixer, 25 µL/min.

ASI 25 µL mixer, 50 µL/min.

ASI 25 µL mixer, 100 µL/min.

HPLC System configuration:
Shimadzu LC-10ADVP pumps with micro-flow modification
Shimadzu SPD-10AVP UV-VIS detector
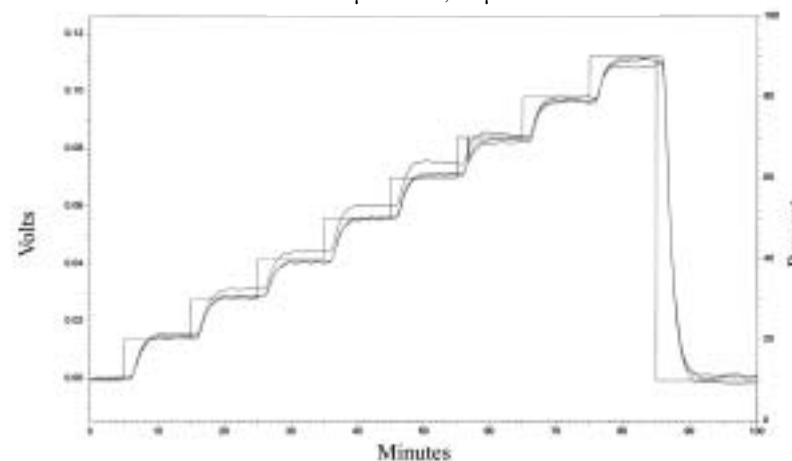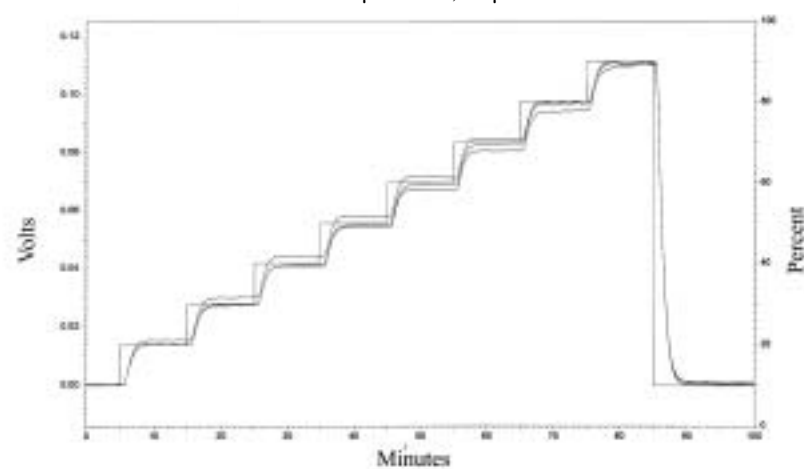Shimadzu Class-VP v5.03 software

HPLC conditions:
Gradient: 10-90% B in 10 min. steps
A = H_2O
B = 0.3% Acetone in H_2O