

# Amino Acid Analysis

## Post Column Ninhydrin Derivatization



<b>Instrumentation:</b>	<b>Hitachi L-8800</b>
<b>Cost:</b>	<b>\$71,000</b>
<b>5 Yr. Warranty:</b>	<b>\$5,000</b>
year 1 and 2	everything covered
year 3-5	major components only
<b>Repairs:</b>	<b>2002           \$3700</b>
	<b>2003           \$7600</b>
<b>Other costs:</b>	
Separation Column	<b>\$2900</b>

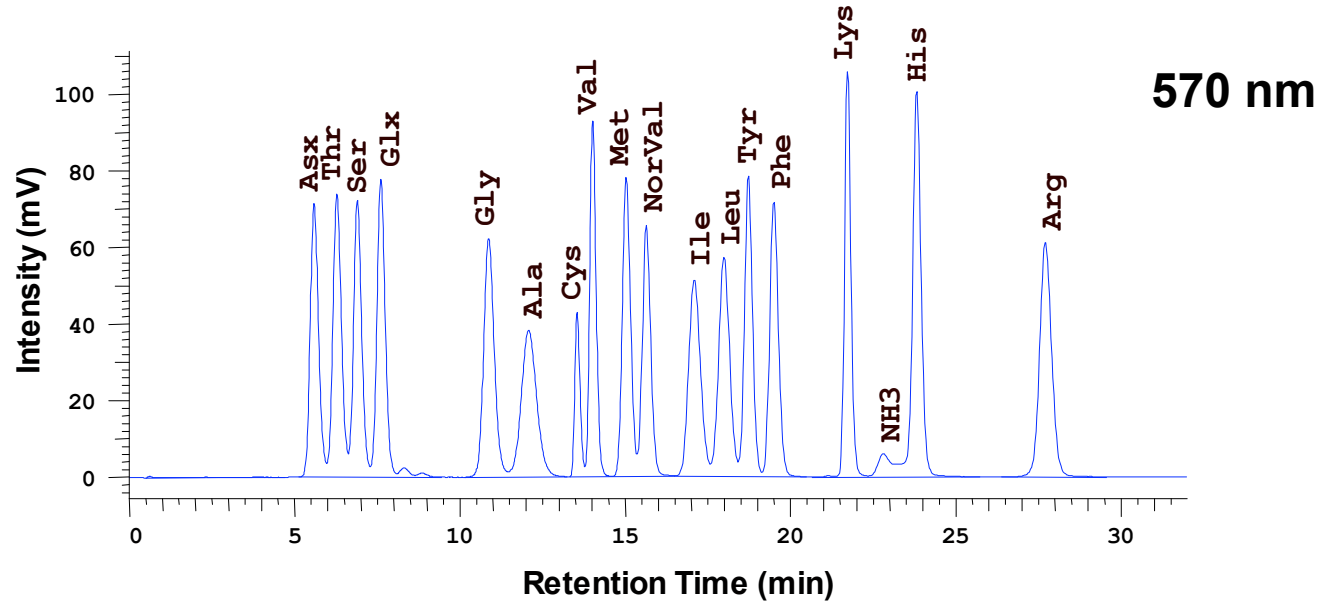
**Very similar to the Beckman 6300**

# NIST AA Standard

~ 1 hour recycle time

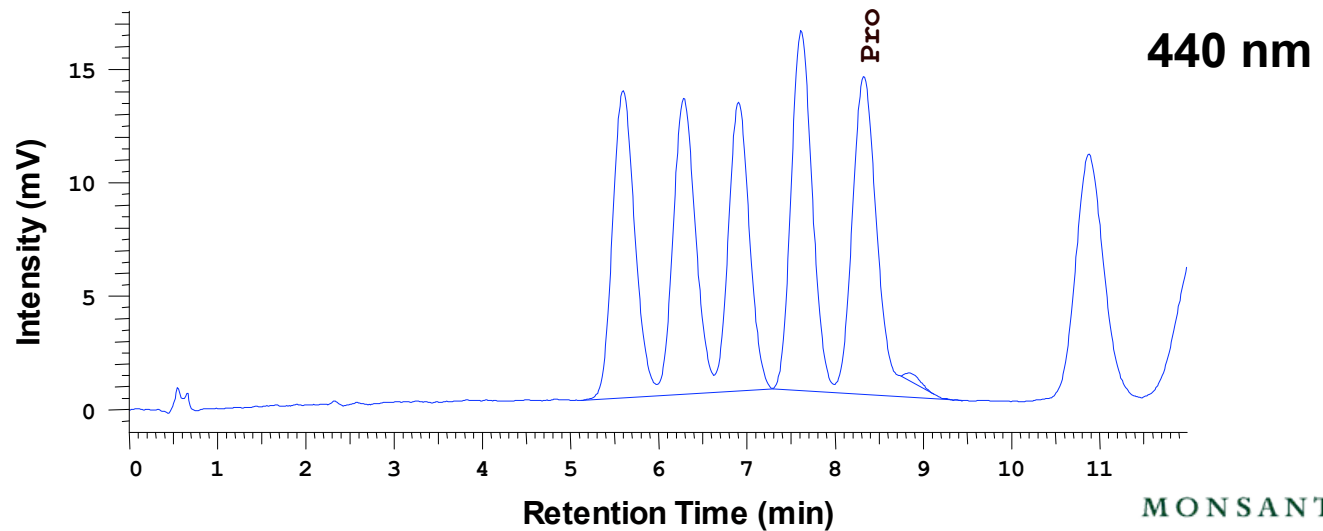
Channel 1

Amino Acids



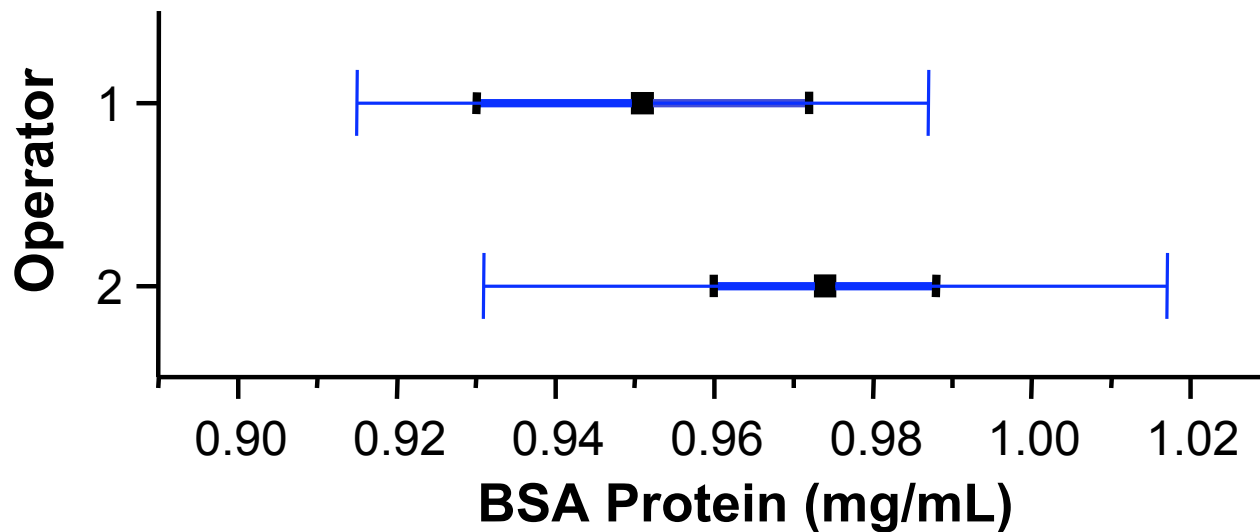
Channel 2

Imino Acids



# NIST BSA (1.0 mg/mL)

## Accuracy and Precision



### Parameters:

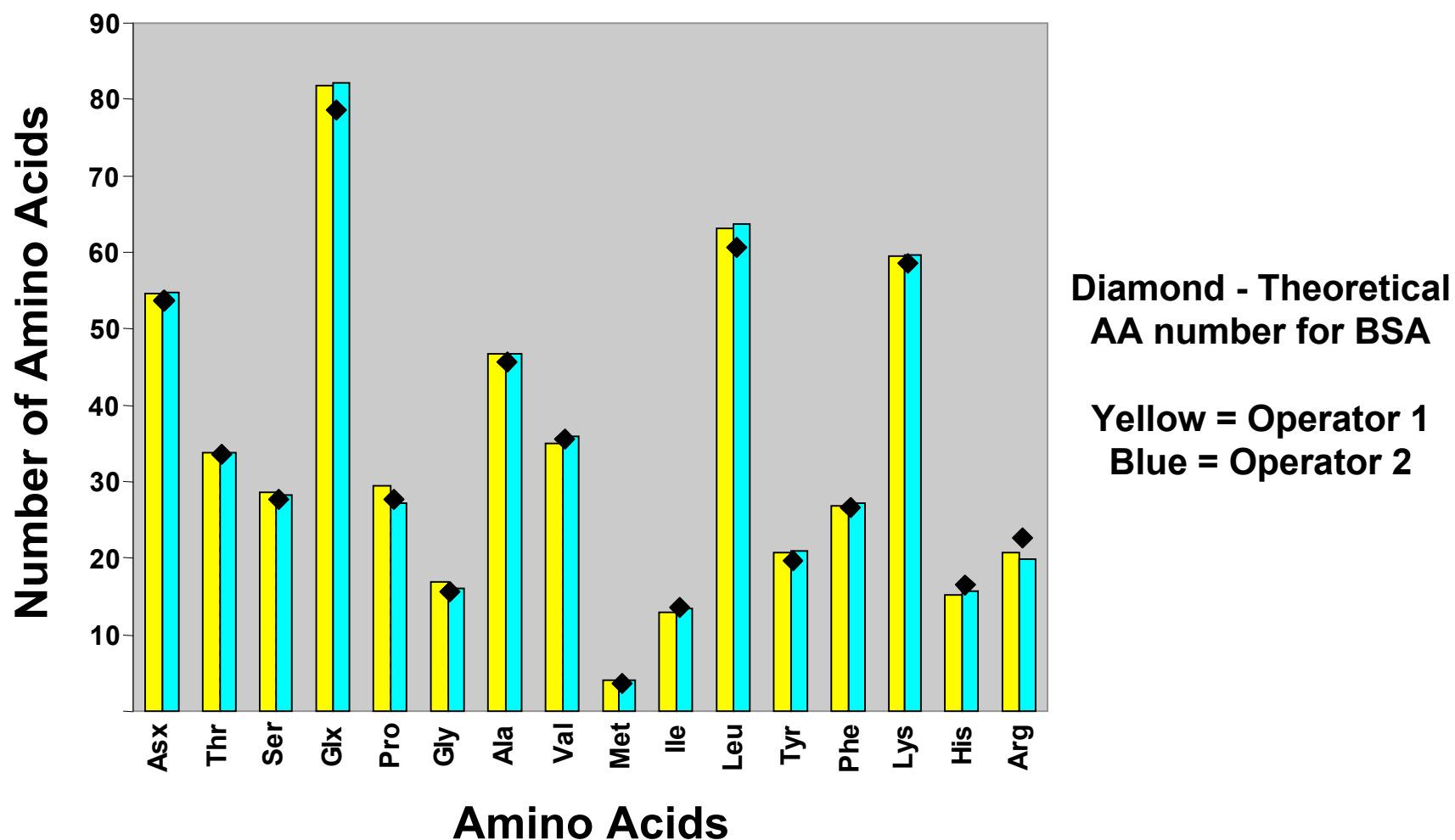
n = 9 BSA samples, 2 operators

Inner error bar = 1 standard deviation

Outer error bar = Average percent error

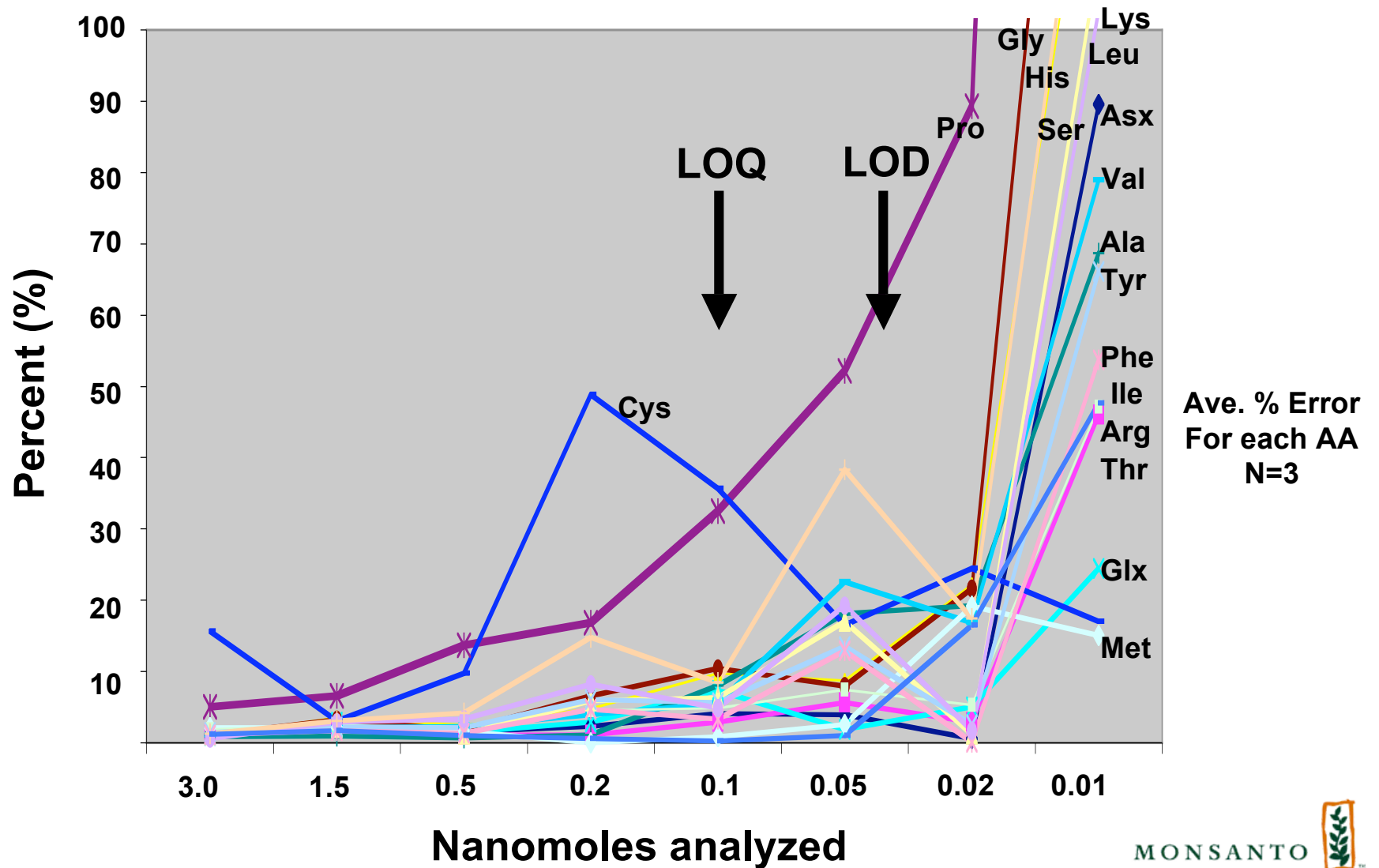
# NIST BSA Amino Acid Composition

## Accuracy and Precision



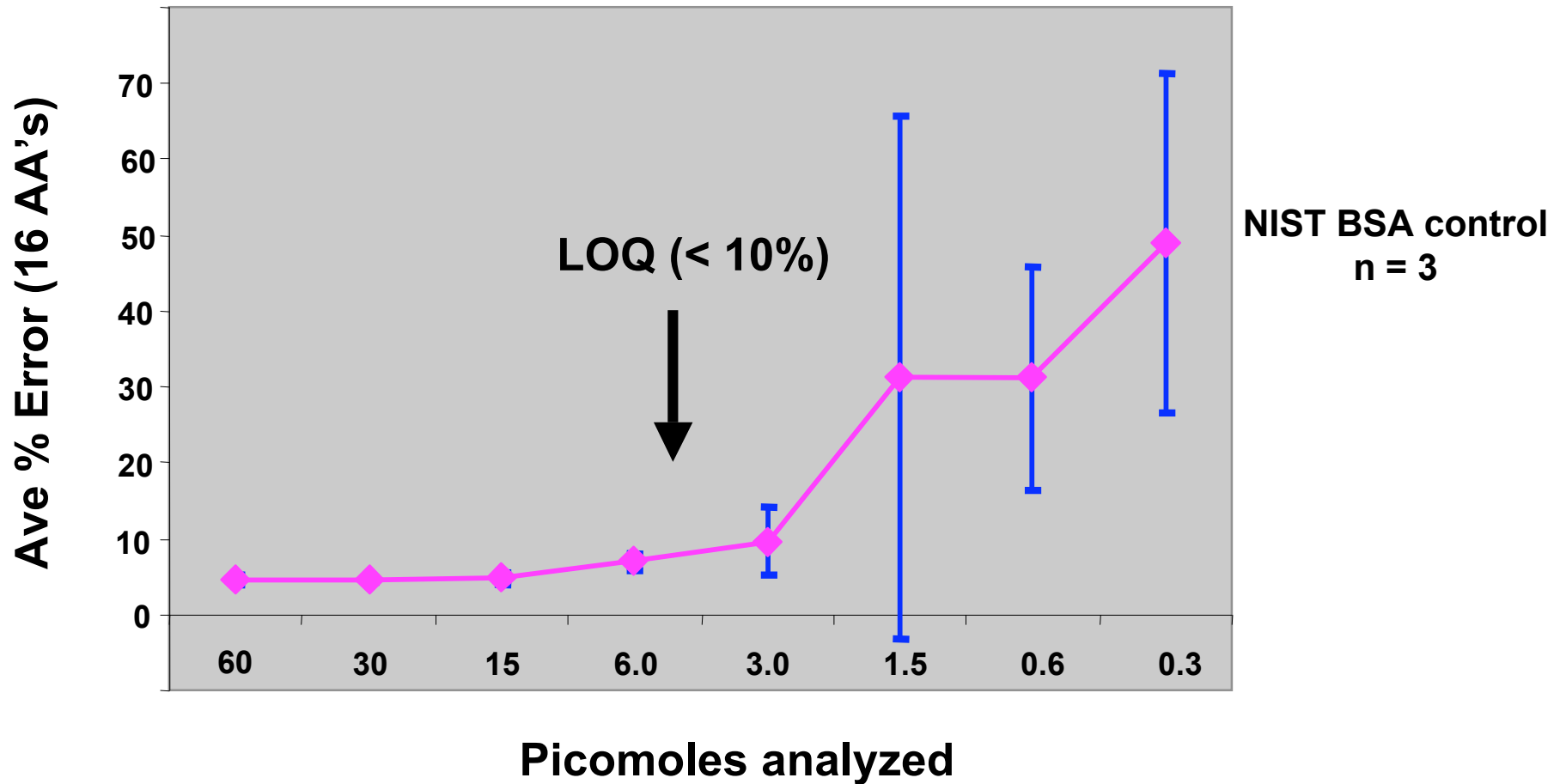
# Amino Acid LOQ and LOD

Quantitation Range 0.1 - 50 nanomoles



# NIST BSA (~66 kDa) LOQ

Quantitation Range 5 - 1000 picomoles  
(Working Range 0.1 to 20 mg/mL)



# The Effect of Protein Contamination on Average Percent Error Values

