

Metrohm

Ion analysis

Metrohm Dosing Test (Linearity check)

Certificate-ID: Hydranal_091203_1343.pdf

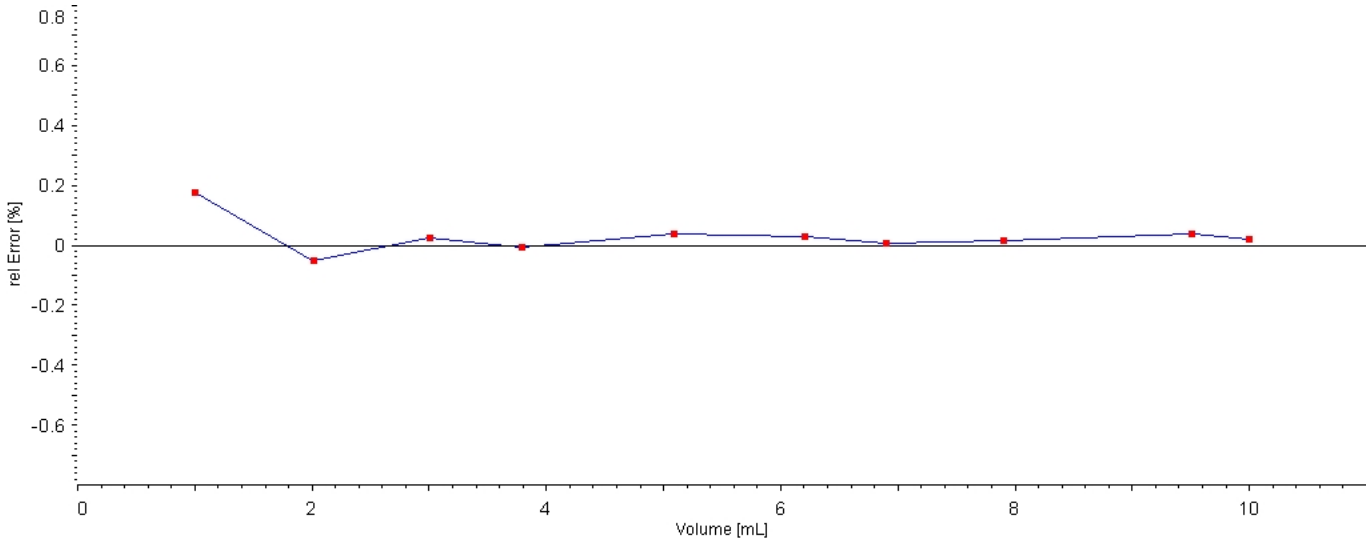
System components:

Buret unit ID:	Hydranal	Cylinder type:	6.1571.210
Buret type:	Dosing Unit	Cylinder volume V_N :	10 mL Ex / 20 °C
Serial number:	10131583	Cylinder serial number:	009358
Instrument ID:	Metrohm Nordic AS	Location:	lab
Model:	Titrande 808	Program version:	58080024
Serial number:	03209	Dosing drive:	E2: Dosino 800
Balance ID:	BP 221 S	Drive ID:	Statoil
Balance model:	Sartorius LC MP	Type of drive:	Dosino 800
Serial number:	90407461	Serial number:	07102

Test parameters:

Temperature:	21 °C	Dosing rate:	33.0 mL/min
Barom. Pressure:	1012.6 mBar	Air density:	0.00120 g/mL
Density cal. weight:	8.000 g/mL	Correction factor Z:	1.00307 mL/g
Dosing mode:	repetitive	Density of liquid:	0.99799 g/mL

Results:



	Results	Limits
Slope:	1.0002	1 ±0.003
Y-Intercept:	-0.08 µL	
Rel. Error _{max. Vol(V_N)} :	0.02 %	±0.2 %

Evaluation:

This buret unit meets the requirements of the Metrohm Dosing Test

Time: 1:44:42 PM Operator: Gry Estensen
 Date: Dec 3, 2009 Reference #: 9A593101-NO-Oslo-Service

Signature: _____

Only valid with a copy of the "Certificate of Qualification" of the operator!

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Auxiliaries:

Thermometer ID:	74983+ 74983B	Barometer ID:	http://retro.met.no/ob servasjon
Model:	80TK Thermocouple	Model:	Fylke
Supplier:	Fluke	Supplier:	Metrologiske Institutt
Test liquid:	Destillert vann	Dosing tip ID:	Eppendorf tip
Type:	Kundes eget anlegg	Model:	White
Supplier:	Kunde navn	Supplier:	Eppendorf

Results:

Test volume [mL]	Mass m_i [g]	Volume _{real} V_i [mL]	Error _(abs.) E_{abs} [μ L]	Error _(rel.) E_{rel} [%]
2.0110	2.0038	2.0100	-1.05	-0.05
10.0000	9.9714	10.0020	2.01	0.02
1.0000	0.9987	1.0018	1.77	0.18
6.9010	6.8804	6.9015	0.52	0.01
7.8980	7.8752	7.8994	1.37	0.02
3.7910	3.7792	3.7908	-0.20	-0.01
5.0870	5.0734	5.0890	1.97	0.04
6.2060	6.1887	6.2077	1.70	0.03
3.0030	2.9946	3.0038	0.79	0.03
9.5110	9.4854	9.5145	3.52	0.04

Balance report:

	Reading [g]	Mass [g]	Time	Comment
m_0	36.338300			
m_1	38.342100	2.0038	1:37:33 PM	
m_2	48.313400	9.9714	1:38:11 PM	
m_3	49.311700	0.9987	1:38:45 PM	
m_4	56.192000	6.8804	1:39:15 PM	
m_5	64.066800	7.8752	1:39:57 PM	
m_6	67.845800	3.7792	1:40:34 PM	
m_7	72.919000	5.0734	1:41:06 PM	
m_8	79.107500	6.1887	1:41:41 PM	
m_9	82.101800	2.9946	1:42:13 PM	
m_{10}	91.587000	9.4854	1:42:50 PM	