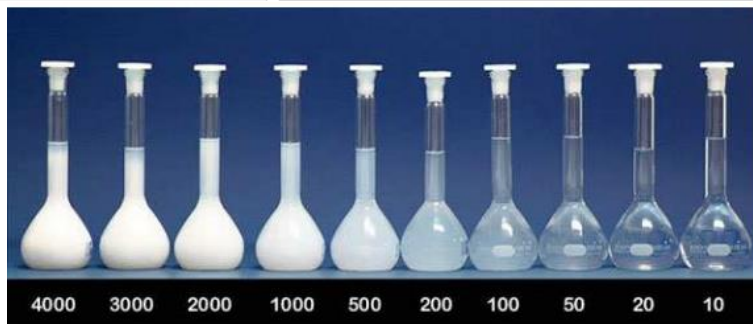
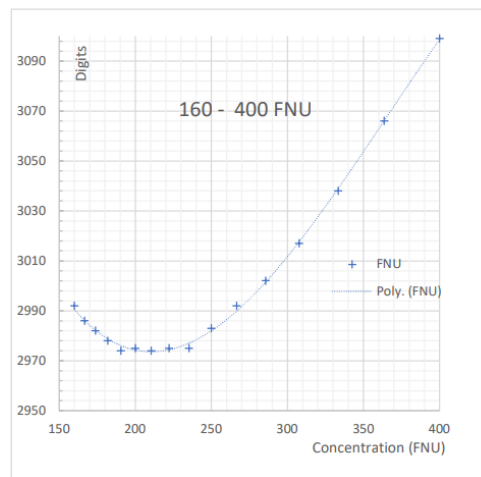
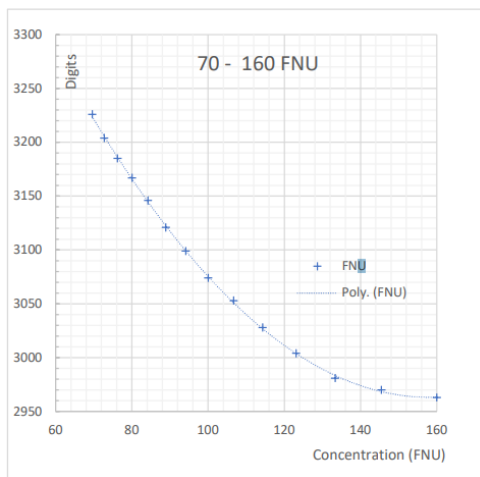




Correlation between Turbidity and FNU Standards



Keywords

Turbidity digits, FNU standards, Linearity, Measurement range

Summary

Correlation between turbidity signal and FNU standard in water is shown. Linear measurement ranges are from 4000 FNU to 300 FNU and below 100 FNU.

From 150 FNU to 250 FNU a negative slope alternates to a positive slope.





eXperiment

Equipment

ITEM	DESCRIPTION
8053 000 100	xelsius Basic Unit xelsius control software version 2.75 or higher
8053 000 500	eXperiment Box Turbidity
8053 000 501	Turbidity Research Kit
8053 000 600	eXperiment Software
8053 000 211	xelsius Dispensing Unit

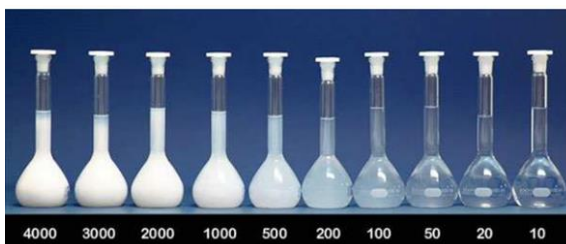
Temp	time	rpm	pump
20°C	1'	1.500	
	1'	1.500	
20°C	1'	1.500	1000µl@ 4.000 µl/min
	1'	1.500	
20°C	1'	1.500	repeat 15 times

eXperiment Set Up

Substances	
20 ml	4000 FNU Standard FNU = Formazin Nephelometric Unit
100 ml	Deionised Water



Add 5 ml standard (4000 FNU) in a HV vials and dilute with 1000µl water. Turbidity signal in monitored and analyzed during runtime.
Repeat with diluted standards
1000 FNU, 400 FNU, 160 FNU.

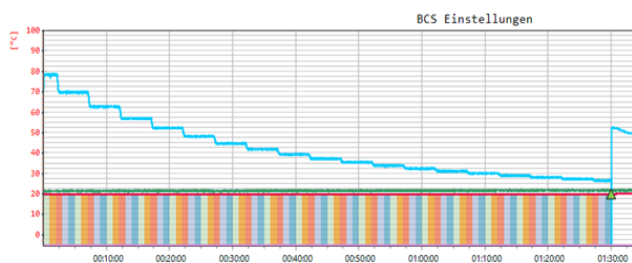
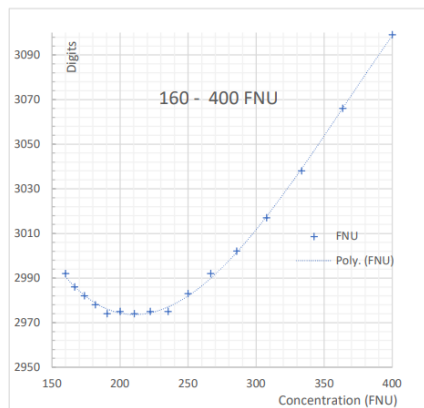
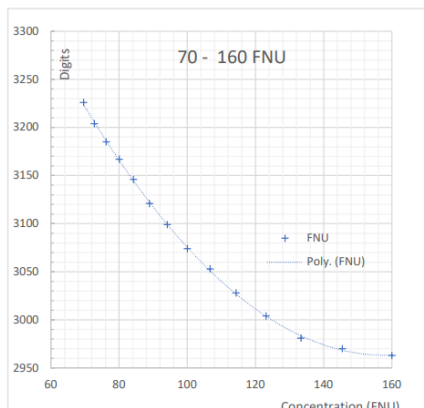
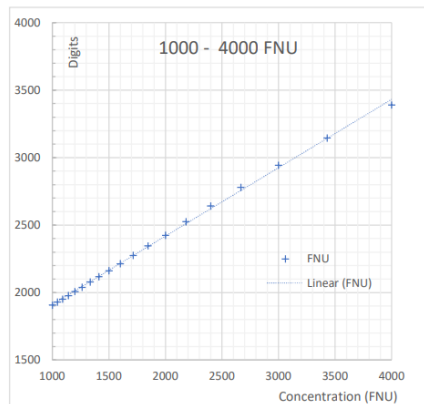
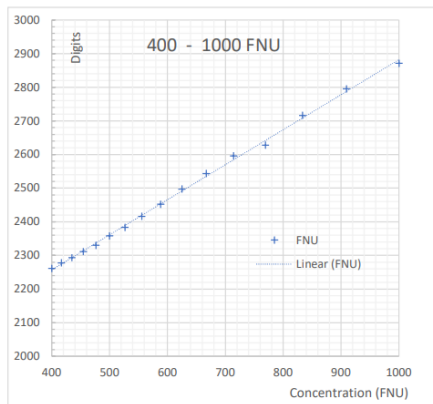


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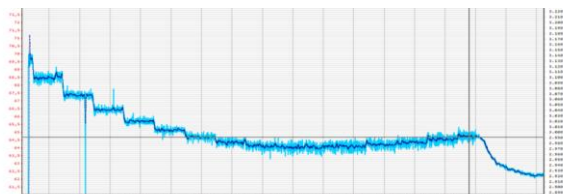
Am Gehrenbach 8
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Results



Turbidity signal from 4000FNU to 1000 FNU



Turbidity signal from 400FNU to 160 FNU

Notes

Linearity of turbidity signal is shown from 4000 FNU to 250 FNU and below 100 FNU.

References

Data provided by: nevoLAB GmbH, 2023

All data without any liability and warranty, copyright of nevoLAB GmbH





About us

nevoLAB is an innovative manufacturing company with skills and passion devoted to provide advanced quality tools and solutions to the chemical community. We are located in Maierhofen in south Germany. Our R&D team has developed and released a series of new lab equipment and instruments dedicated to modern research laboratories.

The eXperiment System

Based on modern IoT technology the eXperiment system is an ideal supplement to the xelsius synthesis reactor to gain more benefit out of your valuable research.

Intuitive software tools offers recordability, reproducibility and shareability to your experiments at every stage of the discovery process, from early reaction setup to analyzing and sharing the outcome.

Working with small volumes and miniaturized sensors saves chemicals and energy and provides high quality experimental data.

Application Notes

Chemical laboratories perform many different procedures during studies and research experiments. Thanks to its flexibility and modularity, xelsius & xelsius eXperiment system can cover many tasks of researches needs in an efficient way.

To support you during your research studies and tasks we have created "Application Notes" as a simple and user-friendly collection of successful use cases to work with the xelsius components to inspire you to find your solution for your valuable work. Enjoy!

