

# CERTIFICATE FOR PARTICIPATION

## DRRR Proficiency Testing

The participant

Środowiskowe Laboratorium Mikrospektroskopii,  
Laboratory of Biological Physics, Institute of Physics  
Pas, al. Lotników 32/46  
02-668 Warsaw  
Poland

*Customer number:* 11831

*lab code number:* 6

gets for the above mentioned quantitative proficiency  
testing the following valuation:

**great success**

To the above mentioned proficiency testing the corresponding report contains the  
statistical evaluations.

Kempten, 26.11.2019



Benjamin Bartl

Valuation:

If the mean of z'-scores of all evaluated  
results is smaller than 2 or equal and single  
z'-scores are smaller than 2 or equal you  
will get the valuation: „great success“

If the mean of z'-scores of all evaluated  
results is smaller than 2 or equal and single  
z'-scores are higher than 2 you will get the  
valuation: „success“

If the mean of z'-scores of all evaluated  
results is higher than 2 you will get the  
valuation: „participated“

## Summary of your quantitative lab performance according to the reference methods

For your company

Środowiskowe Laboratorium Mikrospektroskopii,  
Laboratory of Biological Physics, Institute of Physics

### SUMMARY

customer number: 11831  
lab code number: 6  
number of z'-scores: 2  
number of z'-scores > 2: 0

Valuation:

If the mean of z'-scores of a parameter is smaller than 2 or equal you will get the valuation:  
"You performed very well. Keep your performance."

If the mean of z'-scores of a parameter is smaller than 2 or equal but at least one single z'-score is higher than 2 you will get the valuation:  
"You performed well. In particular cases you showed potential for improvement."

If the mean z'-score of a parameter is higher than 2 you will get the valuation:  
"You showed potential for improvement of your performance."

parameter	number of z'-scores:	number of z'-scores > 2:	mean of z'-scores:	Valuation:
relative density 20 °C / 20 °C	-	-	-	-
pH-value	-	-	-	-
titratable acid (calculated as tartaric acid)	-	-	-	-
sucrose (anhydrous)	-	-	-	-
glucose (anhydrous)	-	-	-	-
nitrate	-	-	-	-
total β-carotene	2	0	0,49	You performed very well. Keep your performance.
α-carotene	-	-	-	-
total carotenes	-	-	-	-

In this summary all your z'-score are selected for the evaluation. The z'-scores refer to the reference method. For routine reports we do not generate a performance summary for all used methods. In particular cases we can generate you a special performance summary with your used method.