



深圳中电计量测试技术有限公司

Shenzhen Zhongdian Metrology and Testing Technology Co., Ltd

校准证书

CALIBRATION CERTIFICATE



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证书编号

Certificate No.

ZD202205170070

委托方

Client

重庆阳正环保科技股份有限公司

委托方地址

Address

重庆市渝中区经纬大道780号1幢3-7

仪器名称

Description

水质分析仪

型号规格

Model/Type

GL-800

制造厂

Manufacturer

格林凯瑞

出厂编号

Serial No.

/

管理编号

Asset No.

02

样品接收日期

Date of Receipt

2022-05-17

校准日期

Date of Calibration

2022-05-17

批准人 :

Approved Signator

王小云

审核 :

Inspected by

巢弘

校准 :

Tested by

杜峰



地址 : 广东省深圳市宝安区福永街道白石厦社区东区新开发区4栋301

Add : Room 301, Building 4, New Development Area, East Zone, Baishixia Community, Fuyong Su District, Bao'an District, Shenzhen, Guangdong, China

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校准说明

DIRECTIONS OF CALIBRATION

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1. 本实验室出具的数据均可溯源至国家计量基准。
(All data issued by ZD Test are traced to National Primary Standards.)
2. 本结果仅对当次被测样品有效, 如有疑问请在15个工作日反馈。
(The results is ONLY valid for the tested sample, please feedback to us within 15 working days if you have any question.)
3. 本证书编号具有唯一性, 若替换证书, 自发出后原证书即可作废。
(Each certificate has a unique number. If replaced the certificate, the original certificate will be invalid once the new certificate number is issued.)
4. 证书中如有最大允许误差、判定结果, 仅供参考, 其中 "P" 代表 "Pass", "F" 代表 "Fail"。
(In the datasheet, MPE & determination is only for reference, "P" represents "Pass" and "F" represents "Fail".)
5. 本次校准的技术依据及获认可的能力范围, 超出范围的内容未被认可。
(Reference documents and Accredited Scopes for Calibration, Beyond the Scope has not been accredited.):

参照 JJG 1094-2013《总磷总氮水质在线分析仪检定规程》、JJG 631-2013《氨氮自动监测仪检定规程》《Ammonia-Nitrogen Automatic Analyzers》、JJG 975-2002《化学需氧量 (COD) 测定仪检定规程》

6. 本次校准使用的主要测量标准 (Main Standards of Measurement Used in the Calibration.):

名称/型号 Description/Model	编号 Serial No.	证书号 Certificate No.	有效期至 Due Date	技术特征 Technique Character
混合磷酸盐 pH 标准物质	00104-21604	GBW(E)170341	2022-10-04	$U_{rel}=0.01\text{pH}, k=3$
氨含量测定用标准物质		GBW(E)060111	2022-06-15	/

7. 校准地点、环境条件 (Place and environmental conditions of the calibration)

地点 Place	本公司实验室	温度 Temperature	20 °C	相对湿度 Relative Humidity	50 %
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8. 建议复校时间间隔: 12 个月, 送检单位可根据实际情况自主决定。
Suggested calibration interval is 12 month or it can be altered depending on the actual usage of the use



校准结果

Result of Calibration

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1、外观及各部件相互作用(Appearance & Interaction):

正常(Normal)

2、检测示值误差(Detection indication error):

结论

	标准值 (mg/L) (Std. Value)	平均值 (mg/L) (Average value)	示值误差 (mg/L) (Error)	技术指标 (Limit)	(Conclusion) (Pass/Fail)
总磷检测示值 (Total phosphorus detection value)	0.495	0.485	-0.010	±0.05mg/L	P
	5.012	5.049	0.7%	±10%	P
	9.987	9.920	-0.7%	±10%	P
总氮检测示值 (Total Nitrogen Detection Indicator)	1.012	1.025	0.013	±0.2mg/L	P
	10.1	10.23	1.3%	±10%	P
	21.9	21.12	-3.9%	±10%	P
COD检测示值(COD detection value)	100.2	101.3	1.1%	±8%	P
	300.9	305.4	1.5%	±8%	P
	999.7	981.1	-1.9%	±8%	P
氨氮检测示值 (Ammonia nitrogen detection value)	0.498	0.479	-0.019	±0.2mg/L	P
	5.002	5.071	1.4%	±10%	P
	9.952	9.754	-2.0%	±10%	P

3、检测重复性(Repeatability of detection):

	检测示值 (Detection value (mg/L)	重复性 (Repeatability) (%)	技术指标 (Limit) (%)	结论 (Conclusion) (Pass/Fail)
总磷(TP)	5.012	2.1	≤5	P
总氮(TN)	10.1	3.2	≤5	P
COD	300.9	1.8	≤3	P
氨氮(NH3-N)	5.002	2.1	≤3	P



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关于测量结果不确定度的说明:

(Directions of measurement uncertainty in the calibration)

1. 依据: JJF1059.1-2012 测量不确定度评定与表示;

(Reference Document: JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement)

2. 本次测量结果的扩展不确定度(The expanded uncertainty of the measurement):

总磷: $U_{rel}=2.0\%$ ($k=2$)

COD: $U_{rel}=2.8\%$ ($k=2$)

氨氮: $U_{rel}=2.0\%$ ($k=2$)

总氮: $U_{rel}=2.1\%$ ($k=2$)

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