



The Origaflex Range

DISCOVER THE NEW POWERS

多通道电化学工作站



OGF 500
OGF⁺500
OGF⁺500EIS

±500 mA / ±20 V



OGF 01A
OGF⁺01A
OGF⁺01AEIS

±1 A / ±20 V



OGF 05A
OGF⁺05A
OGF⁺05AEIS

±5 A / ±20 V



OGF 10A
OGF⁺10A
OGF⁺10AEIS

±10 A / ±20 V

- “独立模块”系统。
- 不同功率的模块（或通道）自由组合：500 mA、1 A、5 A和10 A。
- 每个模块都是真正的恒电位仪和恒电流仪。
- 电池测试支架和T ° C的连接器。
- 阻抗模块（OGFEIS）可选。

ORIGAMUX 多路复用器



MUX01A
MUX10A

允许您连续顺序测量（腐蚀/电池/燃料电池）
(corrosion / battery / fuel cell)

ORIGAFLEX的主要应用



Batteries



Corrosion



Fuel cells



Sensors

The OrigaFlex Range

OGF: 教学TEACHING



- 电流范围: $\pm 500 \text{ mA}$, $\pm 1 \text{ A}$, $\pm 5 \text{ A}$ and $\pm 10 \text{ A}$
- 电压范围: $\pm 15 \text{ V}$
- 槽压: $\pm 20 \text{ V}$

适用模块:

OGF500 / OGF01A
OGF05A / OGF10A



OGF⁺: 科研 RESEARCH / 腐蚀 CORROSION

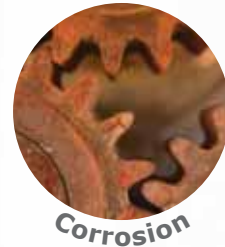


- 新电压范围: $\pm 3 \text{ V}$, $\pm 6 \text{ V}$ and $\pm 15 \text{ V}$
- 包含OGF所有功能
- 新功能: ZRA
- 通信接口: TTL



适用模块

OGF⁺ 500 / OGF⁺ 01A
OGF⁺ 05A / OGF⁺ 10A



OGF⁺EIS : 科研 RESEARCH / 电池 BATTERIES



- 所有规格的OGF 和 OGF⁺
- 内置 EIS: $10 \mu\text{Hz} - 5 \text{ MHz}$

适用模块:

OGF⁺ 500EIS / OGF⁺ 01AEIS
OGF⁺ 05AEIS / OGF⁺ 10AEIS



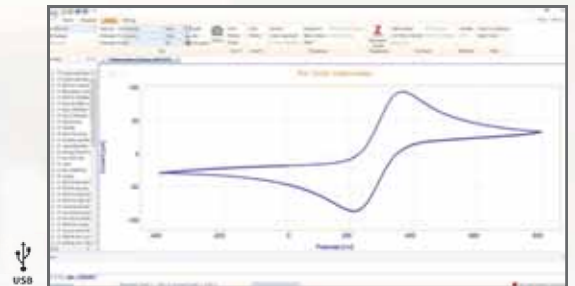
The OrigaFlex concept

我们的系统可根据您的需求进行灵活和模块化组装。

经济实惠/物美价廉的恒电位仪



OrigaMaster - OM5



多通道恒电位仪 / 恒电流 / EIS



OrigaViewer - OV2



可将多通道恒电位仪拆分成单个系统使用



AND



The OrigaFlex Range

FUNCTIONING

要为系统供电，有三种可能性，这完全取决于您的需求...

驱动单元-多通道配置

电源/通道控制/内置虚拟单元

OGFDRV



OGF+ DRV



通信

TTL

RS232

ON OFF



New!

例如：



OGF⁺500 + OGF⁺01A + OrigaMux + 3 x OGF⁺05A

控制位置仪器：

- 旋转圆盘电极 (RDE)
- 磁力搅拌器
- 恒温槽
- 太阳能模拟器
- 气候室温度
- 等

电源-用于单通道

OGFPWR



- 电源
- 仅限于单通道工作站测试



单通道电化学工作站

500mA

=

Pack OGF500

更多 OGF套装

请联系：



The OrigaFlex Range

技术规格

		OrigaFlex			
		OGF500 OGF ⁺ 500 OGF ⁺ 500EIS	OGF01A OGF ⁺ 01A OGF ⁺ 01AEIS	OGF05A OGF ⁺ 05A OGF ⁺ 05AEIS	OGF10A OGF ⁺ 10A OGF ⁺ 10AEIS
Potentiostat	恒电位仪	Yes			
Galvanostat	恒电流仪	Yes			
Maximum current	电流	±500 mA	±1 A	±5 A	±10 A
Compliance voltage	槽压	±20 V			
Max. applied potential	电压	±15 V			
Potential resolution	电压分辨率	0.003 %			
Potential accuracy	精度	< 0.1% FSR (Full Scale Range)			
Voltage range	电压范围	±15 V with OGF / ±3 V, ±6 V and ±15 V with OGF+			
Maximum scan rate	扫描速率	200 V/s			
Current ranges	电流范围	9 (14 with low current option)	9 (13 with low current option)	6 (11 with low current option)	6 (11 with low current option)
with standard board	标准板	±5 nA to ±500 mA	±10 nA to ±1 A	±50 µA to ±5 A	±100 µA to ±10 A
with low current option	微电流选项	1 pA to 10 nA			
Current accuracy	电精度	< 0.1% FSR			
Current resolution	电流分辨率	0.003 % FSR (Best : 150 fA)	0.003 % FSR (Best : 300 fA)	0.003 % FSR (Best: 1.5 nA)	0.003 % FSR (Best: 3 nA)
Input impedance	输入阻抗	1 TΩ (// 20 pF)			
EIS		10 µHz - 5 MHz with OGF+EIS			
Interfaces	接口	Ethernet, USB 2.0			
Acquisition time	采集时间	> 100 µs			
IR compensation	IR补偿	Yes, manual and automatic Static			
Electrodes connections	电极连接	2, 3, 4			
A/D converter	A/D转换	16 bits			
Floating option	选项	Versatile connection 多功能连接			
Filters	过滤器	1 µs to 1 s, analog, anti-aliasing filter (50 Hz / 60 Hz)			
Dimensions (DxWxH)	尺寸	300 x 85 x 450 mm		300 x 120 x 450 mm	300 x 170 x 450 mm
Power requirements	功率	88-264 Vac, 47-63 Hz, 30 VA	88-264 Vac, 47-63 Hz, 40 VA	115-230 Vac, 47-63 Hz, 150 VA	
Weight	重量	4.55 kg		8 kg	16 kg
Software	软件	OrigaMaster (USB 2.0), OrigaViewer (Ethernet)			
Cable length	电缆尺寸	On demand			
Temperature control	温度控制	-10°C to 105°C (14°F to 221°F)			
Auxiliary inputs	辅助输入	1 with OGF / 2 with OGF+			
Bandwidth	带宽	1 MHz		100 KHz	
Analog I/O	模拟I/O	Yes, 1			

如有更改，恕不另行通知。
请联系我们了解更多信息。
www.chohao.com/origalys

OGF500



OGF500

± 500 mA / ± 20 V

OGF⁺500

± 500 mA / ± 20 V

电压范围:
 ± 3 V / ± 6 V / ± 15 V

ZRA 测试方法

TTL 通信



OGF⁺500EIS

± 500 mA / ± 20 V

电压范围:
 ± 3 V / ± 6 V / ± 15 V

ZRA 测试方法

TTL 通信

内置阻抗EIS:
5 MHz - 10 μ Hz

- 可以同时在不同通道上的进行同时测量.
- OGF 500EIS⁺(10 μ Hz - 5 MHz)内置阻抗 EIS.
- 可通过USB与OrigaMaster 5单独控制.
- 可自由查看模块的状态和电位.
- 1个驱动单元和虚拟单元最多10个OGF500模块.

技术规格

电极	2, 3, 4	电压范围	± 15 V (OGF) / $\pm 3, \pm 6, \pm 15$ V (OGF+)
电压	± 15 V	电压精度	< 0.1% FSR (Full Scale Range)
槽压	± 20 V	电压分辨率	0.003%
电流	± 500 mA	电流精度	< 0.1% FSR
电流范围	± 5 nA to ± 500 mA in 9 decades	电流分辨率	0.003% FSR (best: 150 fA)

详细技术参数请查阅第5页.

选件

OrigaTrod Kit



OrigaM μ



OrigaDiff



Battery holders

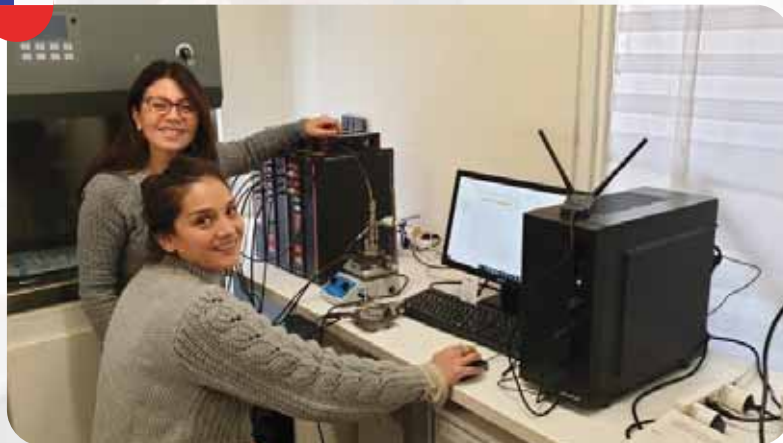


“

CORROSION ON AERONAUTICAL MATERIALS

« **The after-sales service is very efficient** »

I like OrigaLys because they are a good quality/price ratio. In addition, the after-sales service is very efficient: my laboratory is in Chile and despite the distance, once a year I receive the visit of Cédric Martinez who updates my equipment both in hardware and the software.



Pontificia Universidad Católica de Chile

OGF01A



OGF01A
±1 A / ±20 V



OGF⁺01A
±1 A / ±20 V

OGF⁺01AEIS
±1 A / ±20 V

电压范围:
±3 V / ±6 V / ±15 V

电压范围:
±3 V / ±6 V / ±15 V

ZRA 测试方法

ZRA 测试方法

TTL 通信

TTL 通信

内置阻抗 EIS:
5 MHz - 10 μHz

- 可以同时不同通道上的进行同时测量.
- OGF 01AEIS⁺ (10 μHz - 5 MHz) 内置阻抗 EIS.
- 可通过USB与OrigaMaster 5单独控制.
- 可自由查看模块的状态和电位.
- 1个驱动单元和虚拟单元最多10个OGF01A模块.

技术规格

电极	2, 3, 4	电压范围	±15 V (OGF) / ±3, ±6, ±15 V (OGF+)
电压	±15 V	电压精度	< 0.1% FSR (Full Scale Range)
槽压	±20 V	电压分辨率	0.003%
电流	±1 A	电流精度	< 0.1% FSR
电流范围	±10 nA to ±1 A in 9 decades	电流分辨率	0.003% FSR (best: 300 fA)

详细技术参数请查阅第5页.

选件

OrigaTrod Kit



OrigaMμ



OrigaDiff



Battery holders



“

QUANTIFICATION OF CORROSION

« It ensures quality technical follow-up and does not hesitate to go further to help us reflect on areas of improvement and development »

The CETIM has been working with OrigaLys for 10 years. It was one of our first suppliers of electrochemical equipment. We started with the acquisition of a multichannel potentiostat (8 channels with 1 impedance channel) which is still very functional today. OrigaLys is much more today than just a supplier, it has become a true partner and has accompanied us for all its years in our electrochemical tests. We can highlight the great listening and availability of the OrigaLys team. It ensures quality technical follow-up and does not hesitate to go further to help us reflect on areas of improvement and development relevant to our tests. OrigaLys, for example, helped us develop an electrochemical test method to qualify a sacrificial anode following the requirements of a specification from one of our customers. Today, we set up with their technical support electrochemical permeation tests to measure the amount of hydrogen entering a metallic material.





OGF05A

New!

New!

OGF05A
±5 A / ±20 V

OGF⁺05A
±5 A / ±20 V

OGF⁺05AEIS
±5 A / ±20 V

电压范围:
±3 V / ±6 V / ±15 V

电压范围:
±3 V / ±6 V / ±15 V

ZRA 测试方法

ZRA 测试方法

TTL 通讯

TTL 通讯

内置阻抗 EIS:
5 MHz - 10 μHz

- 可以同时不同通道上的进行同时测量.
- OGF 05AEIS⁺(10 μHz - 5 MHz)内置阻抗 EIS.
- 可通过USB与OrigaMaster 5单独控制.
- 可自由查看模块的状态和电位.
- 1个驱动单元和虚拟单元最多4个OGF05A模块.

TECHNICALS SPECIFICATIONS

电极	2, 3 and 4	电压范围	±15 V (OGF) / ±3, ±6, ±15 V (OGF+)
电压	±15 V	电压精度	< 0.1% FSR (Full Scale Range)
槽压	±20 V	电压分辨率	0.003%
电流	±5 A	电流精度	< 0.1% FSR
电流范围	±50 μA to ±5 A in 6 décades	电流分辨率	0.003% FSR (best: 1.5 nA)

详细技术参数请查阅第5页.

选件

OrigaTrod Kit



OrigaMμ



OrigaDiff



Battery holders



“

DEVELOPMENT OF NEW ELECTROCALYSTS

« We strongly recommend this system for the electrochemical measurement »

OrigaFlex (OGF05A) is an excellent option to perform electrocatalytic measurements related to water electrolysis. The system is very easy to use and the software offers multiple and interesting options. On the other hand, the technical support of OrigaLys is always accessible and effective. We strongly recommend this system for the electrochemical measurements dealing with water electrolysis.



Institute of Electrochemistry - University of Alicante, Spain

OGF10A



OGF10A
±10 A / ±20 V



OGF⁺10A
±10 A / ±20 V

OGF⁺10AEIS
±10 A / ±20 V

电压范围:
± 3 V / ± 6 V / ± 15 V

电压范围:
± 3 V / ± 6 V / ± 15 V

ZRA 测试方法

ZRA 测试方法

TTL 通信

TTL 通信

内置阻抗EIS:
5 MHz - 10 μHz

- 可以同时不同通道上的进行同时测量
- OGF 10AEIS (10 μHz - 5 MHz)内置阻抗 EIS.
- 可通过USB与OrigaMaster 5单独控制.
- 可自由查看模块的状态和电位.
- 1个驱动单元和虚拟单元最多10个OGF10A模块..

技术规格

电极	2, 3 and 4	电压	±15 V (OGF) / ±3, ±6, ±15 V (OGF+)
电压	±15 V	电压精度	< 0.1% FSR (Full Scale Range)
电压范围	±20 V	电压分辨率	0.003%
电流	±10 A	电流精度	< 0.1% FSR
电流范围	±100 μA to ±10 A in 6 decades	电流分辨率	0.003% FSR (best: 3 nA)

详细技术参数请查阅第5页.

选件

OrigaTrod Kit



OrigaMu



OrigaDiff



Battery holders



“

FUEL CELL, ELECTROLYZER & CATALYST

« **The OGF10A+EIS has been a great success in achieving our goals and produced good results** »

We have been using the Origa**Lys** model OGF**10A+EIS** used for general electrochemistry, Fuel cell, Electrolyzer and Catalyst research activity. We are very pleased with the results. Our aim was to develop a catalyst for Green energy applications. The Origa**Lys** machine has been a great success in achieving our goals and produced good results. The unit is easy to operate, has an analysis tools and produces a report that is both comprehensive and easy to interpret.



JAIN University - Bengaluru, Inde

OGFMUX

一种创新的电化学多路复用器

在大批量电解池上编辑您的的测试方法



MULTI-POTENTIOSTAT



MULTIPLEXER

- 保持所有电解池的电位，并依次进行电流测量
- 1台测量仪器最多可进行72个电解池测量

ZRA mode :

- 在连续测量过程中保持0V电位
- ZRA模式下的意外断电安全保护

技术规格

电解池数量	8 cells per MUX	电流范围	From pA to 10 A per cell depending on the connected OGF
切换输入	WRK + (REF REF2 AUX TEMP + GND)	保持电位	15 V ±100 mA in 2 / 3 / 4 electrodes
可用型号	01A / 10A	RA模式下的意外断电安全保护	Yes
开关控制	转换	通信	由OGFDRV (以太网) 驱动
阻抗输入	10GΩ 20pF	接口 (每个通道)	1 个6针接口 + 2个SMB接口
串联	可以串联 9个 Origamux, 测试通道到72 个	PC 软件	Origaviewer 2



Corrosion monitoring
Corrosion inhibitor test

Galvanic corrosion
Surface treatment

Fuel cells
Microbial Fuel Cell

Electrolyser



EASCVsens PROJECT



Voltammetry by current sampling on a network of electrodes for the detection of metallic trace elements in water



Partners :



OriginaMux Multiplexer



Ultra micro electrode array

Read more:



Bi-Potentiostats

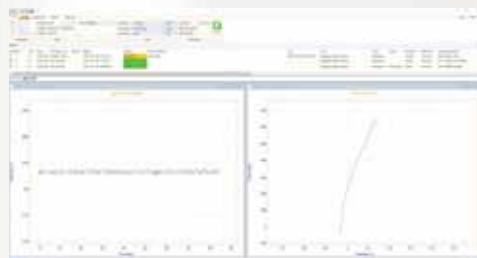


DRV Unit	WRK 1	WRK 2	AUX REF
-------------	----------	----------	------------

- 以太网控制
- 兼容RRDE
- 3个恒电位仪
- OrigaFlex 可自由组合通道: 500 mA, 1 A, 5 A to 10 A.

双恒电位仪

OrigaViewer 2



RRDE 分析的理想选择

概念

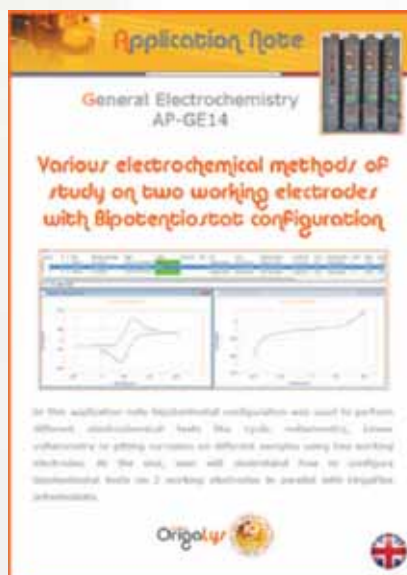
在双恒电位仪模式下，我们监测三个电极：两个工作电极（WRK 1和WRK 2）和一个对电极（AUX）。

最优配置

Current Work 1 + Work 2 < Current Aux/Ref

应用指南: AP-GE14

通过下面的二维码了解如何配置OrigaFlex系列的双电位仪。



“

ELECTROCATALYSIS AND BATTERY RESEARCH

" The Origaflex offers great value for a flexible system "

It performs flawless during standard measurements such as rotating-ring disk measurements of nanoparticles or charge discharge curves of battery materials. We have used it, e.g., in our recent publication in-ChemSusChem. The system is simple and easy to use. Most importantly, my students like to work with the potentiostat as well as with the software Origamaster and Origaviewer. The software is very intuitive and allows drawing complex experimental protocols using the most common electrochemical methods. The graphical representation of the experimental protocol makes it also easy to document the performed experiment. Overall, the Origaflex system offers great value for a flexible and accessible potentiostat system at a low price.



IN OPTION



OGFEIS

阻抗测试模块

使用我们的外部电化学阻抗模块 (EIS) 升级您现有的系统

可用的方法:

- Potential Dynamic EIS
- Potential Fixed Frequency (Capacitance): Mott-Schottky
- Potential Fixed Frequency versus Time (HFR)
- Galvanic Fixed Frequency versus Time (HFR)
- Galvanic Dynamic EIS

兼容型号



OGFEIS 兼容 ORIGAFLEX

- OGF500 OGF⁺ 500
- OGF01A OGF⁺ 01A
- OGF05A OGF⁺ 05A
- OGF10A OGF⁺ 10A

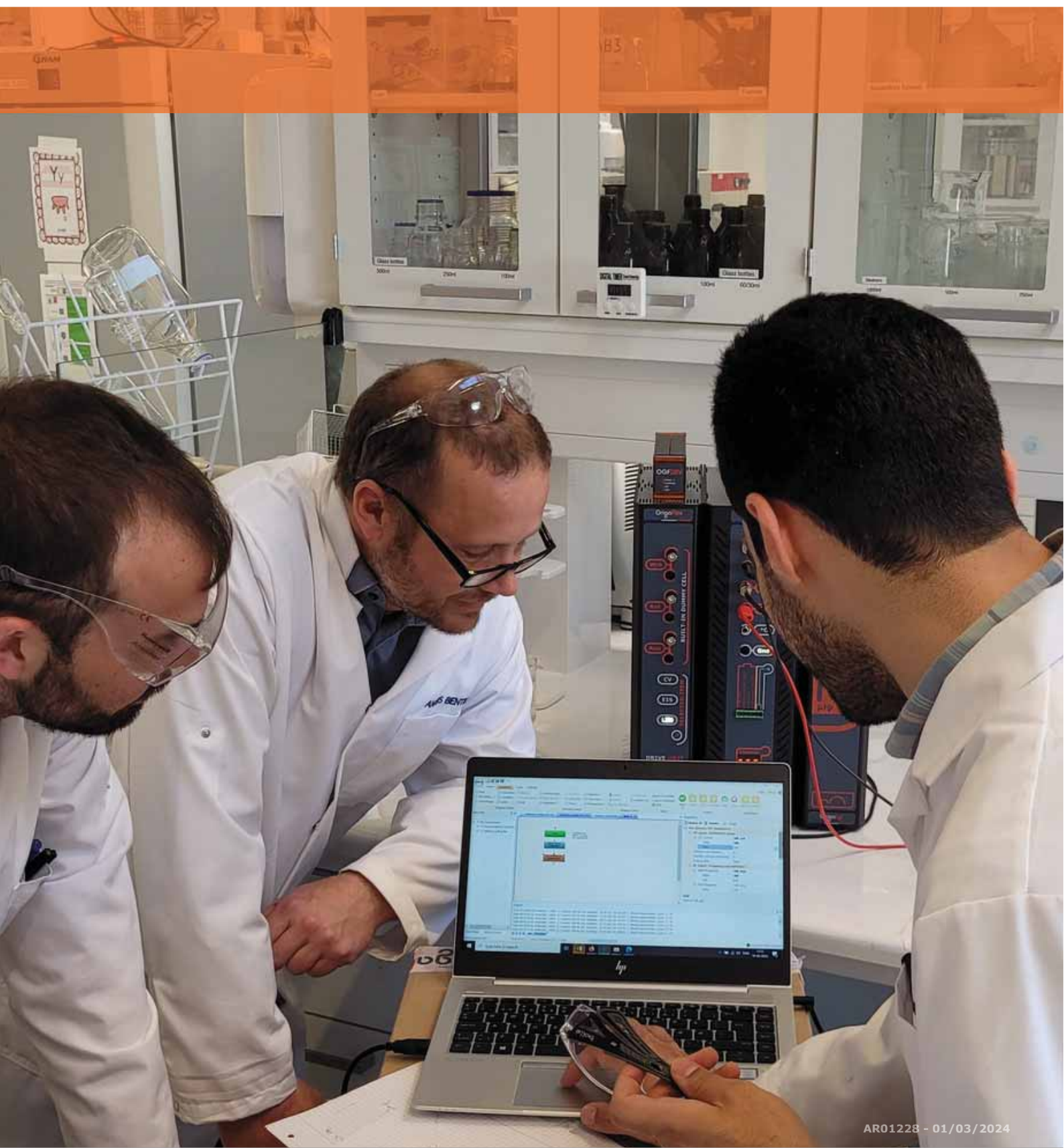


OGFEIS 兼容 ORIGASTAT

- OGS100
- OGS200

技术规格

频率范围	10 μ Hz - 5 MHz	数据	Nyquist, Bode, Admittance, Mott-Schottky
分辨率	5 ppm	分析	Fit and simulation, find circle, element subtraction, export data
输入电压范围	± 15 V	PC 软件	OrigaMaster and OrigaViewer
型号类型	Sine with delay and average on 1 to 10 determinations	电压振幅	6 μ V à 7.5 V maximum
输入通道	E和I来自恒电位仪/恒电流仪或X和Y外部信号	电流振幅	100% of range I, best resolution 6 ppm



AR01228 - 01/03/2024



中昊清远（北京）科技有限公司

北京市朝阳区延静里中街3号院

+86 10-8478 6530

+86 1391 1506 202

origalys@chohao.com
www.chohao.com/origalys