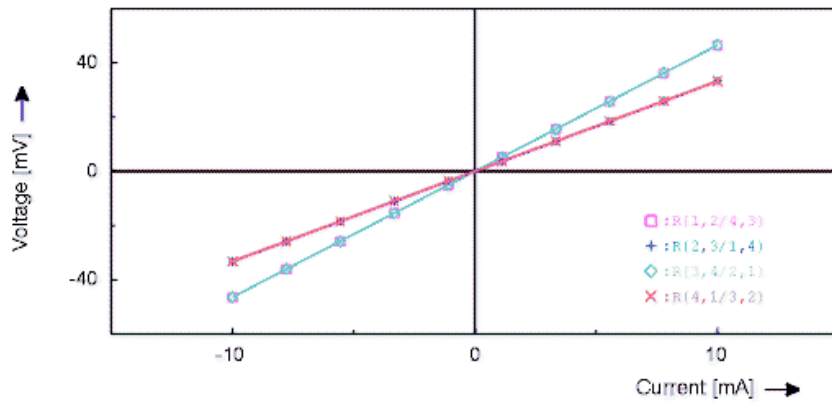
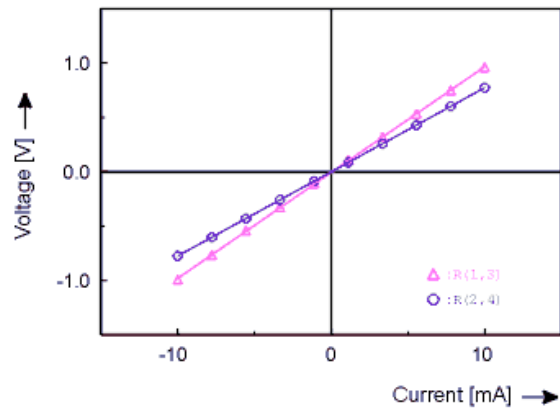
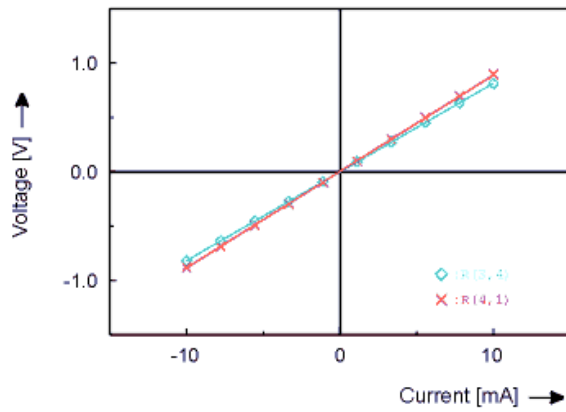
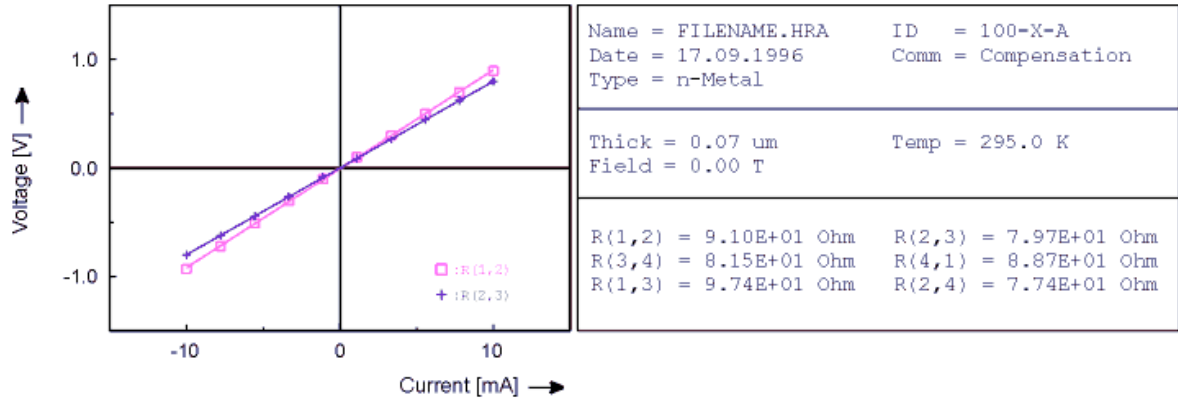


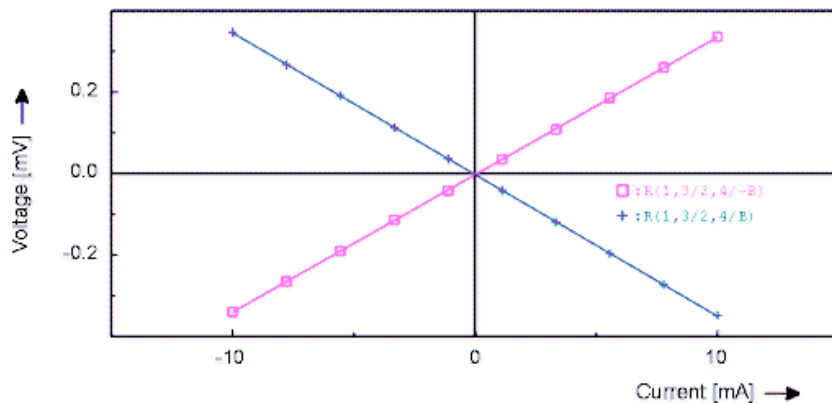
PHYS TECH 霍尔效应测试仪器

1.	设备名称:	霍尔效应测试仪
2.	功能描述:	测量半导体薄膜中载流子类型、载流子浓度、迁移率、电阻率、霍尔系数等参数
3.	技术参数:	
3-1	测试范围:	Si, SiGe, SiC, GaAs, InGaAs, InP, GaN (N Type & P Type)等材质的半导体薄膜中载流子类型、载流子浓度、迁移率、电阻率、霍尔系数等参数
3-2	磁场:	
3-2-1	磁场强度:	1T 电磁体
3-2-2	磁场类型:	电磁体(进口产品)
3-2-3	磁场均匀性:	磁场不均匀性 $\leq \pm 1\%$ 10年内磁场变化 $\leq \pm 0.2\%$
3-3	温度:	
3-3-1	温度区域:	77K(液氮温度)或室温
3-4	电阻率范围:	1 μ Ohm*cm ~10 M Ohm*cm
3-5	电阻范围:	0.1 m Ohms ~10 G Ohms
3-6	载流子浓度:	$10^7 \sim 10^{21} \text{cm}^{-3}$
3-7	迁移率:	$10^{-2} \sim 10^7 \text{cm}^2/\text{volt} \cdot \text{sec}$
3-8	输入电流:	
3-8-1	电流范围:	1000 pA~10mA
3-8-2	电流解析度:	2.5 pA (lowest range)
3-8-3	电流精度:	2%
3-9	输入电压:	
3-9-1	电压范围:	$\pm 10\text{V}$
3-9-2	电压分辨率:	1 μV
4.	仪器特点:	
4-1	Automatic or manual current selection 自动或手动模式(电流控制磁场模式)	
4-2	Automatic contact check 自动接触检查(欧姆接触)	
4-3	Routine and enhanced software 常规和增强软件	
4-4	Differential resistivity measurements by I/V-curves I/V曲线测试电阻率差异	
4-5	Variable magnetic field 变磁场	
4-6	Misalignment voltage compensation 失调电压补偿	
4-7	Correction of slow sample drift voltage, especially for ZnO, 修正慢样品漂移电压, 特别是氧化锌	
4-8	Automatic field calibration 自动现场标定	

4-9	Large concentration and resistivity range 大浓度和电阻率范围
4-10	Flexible, modular hardware 灵活的模块化硬件
4-11	Support of various magnets, for example BioRad HL 5200 支持多样磁场
4-12	Support of various temperature controllers 支持各种温度控制器(支持客户自行升级变温系统)
4-13	Van der Pauw and bar shape (bridge-type) Hall samples 支持范德堡和霍尔巴法测试霍尔
5	硬件
5-1	The standard system consists of a bench top electronic system, a small magnet and a sample stage for room temperature and LN2 measurements. 标准系统包含电子测试系统、磁场和两个温度区域的测试平台(室温和液氮温度)
5-2	The electronics include the current source, the voltage measurement part, the contact switching module, the magnet power supply and the IEEE or RS232 interface. It is completely micro processor controlled. 电子测试系统包括由单片机控制的电流源、电压测试、接触开关模块、磁场电源、IEEE或RS232接口
5-3	The contact switching module is designed to allow all possible measurement configurations. 接触开关模块支持所有用户用于其他的配置(用户可以采用制冷机做变温霍尔测试)
5-4	The current source has adjustable limits for voltage and/or power. {+++} 电流源具有可调电压和/或电源的限制
5-5	Voltage measurement provides different input amplifiers optimized for either low current or low voltage applications. 电压测量提供了不同的输入放大器或低电流或低电压应用的优化。
6	软件



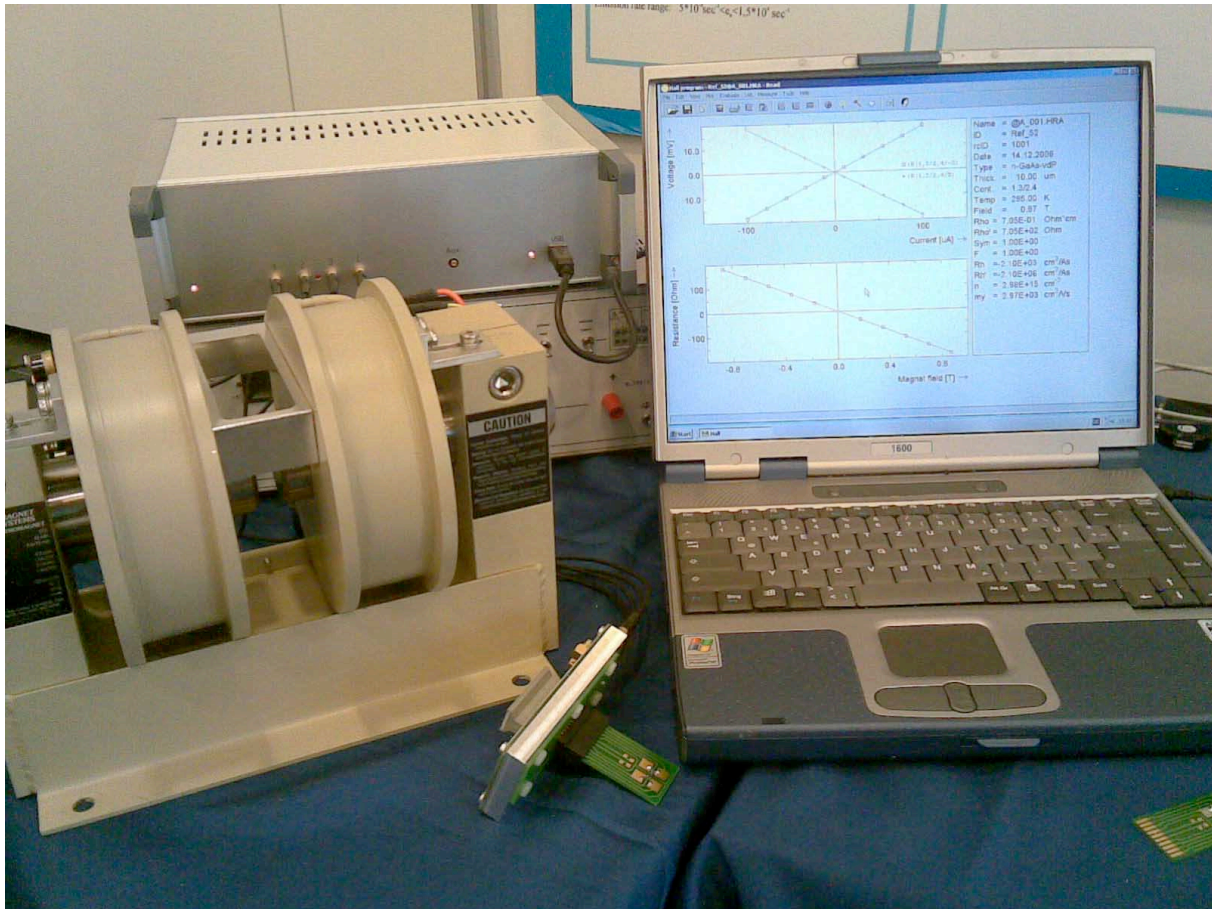
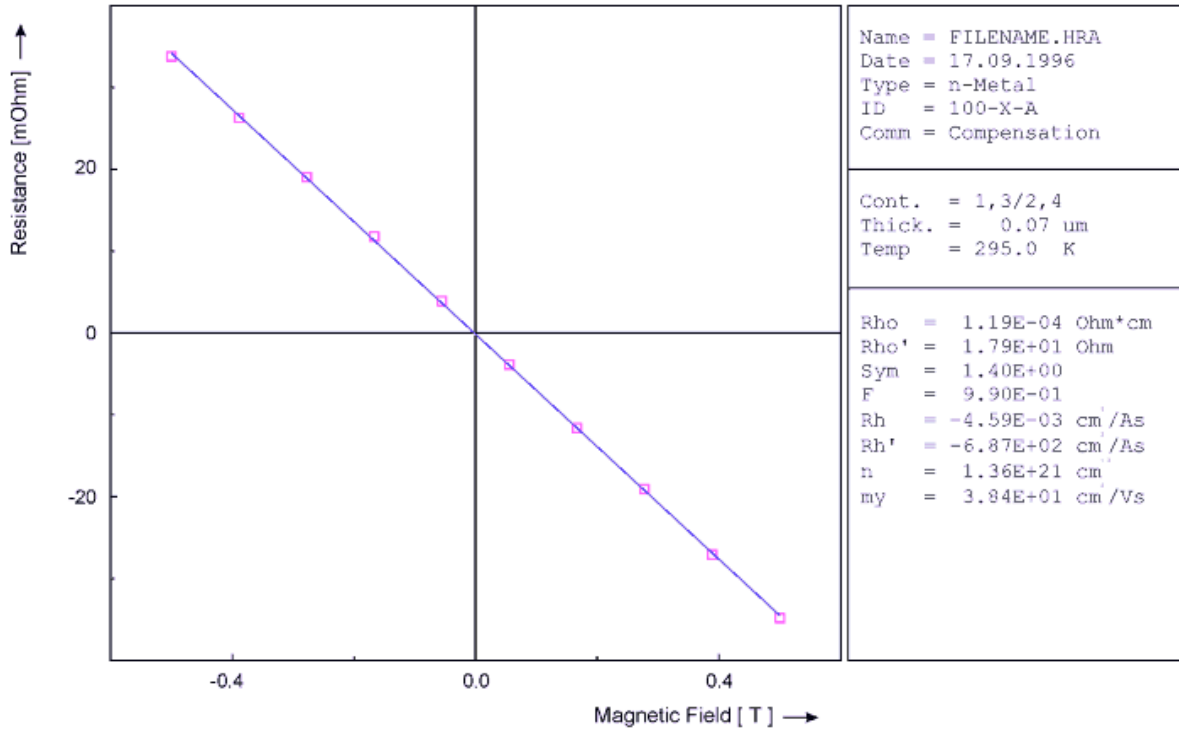
Name = FILENAME.HRA	ID = 100-X-A
Date = 17.09.1996	Comm = Compensation
Type = n-Metal	
Thick. = 0.07 um	Temp = 295.0 K
Field = 0.00 T	
Rho = 1.19E-04 Ohm*cm	
Rho* = 1.79E+01 Ohm	
Sym = 1.40E+00	
F = 9.90E-01	
Rh = -4.58E-03 cm/As	
Rh* = -6.86E+02 cm/As	
n = 1.36E+21 cm ⁻³	
my = 3.84E+01 cm ² /Vs	



Any enquiry please contact Mobile:13918893919, xuefeng.xi@rnwtech.com

如对此有任何疑问请联系 奚雪峰 手机:13918893919, xuefeng.xi@rnwtech.com

RW Instruments Shanghai Office RNWTECH(H.K)Co.,LTD 10/08/14 04:40 下午



RH2030图片



Any enquiry please contact Mobile:13918893919, xuefeng.xi@rnwtech.com

如对此有任何疑问请联系 奚雪峰 手机:13918893919, xuefeng.xi@rnwtech.com

RNWI Instruments Shanghai Office RNWTECH(H.K)Co.,LTD 10/08/14 04:40 下午