Bringing innovative instrumentation products to market

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### List of Physics XRF and vacuum research equipment for sale

# Dr Keith Barfoot 4<sup>th</sup> June 2015

Staplethorne Ltd is offering for sale research equipment, on the following terms, details of which can be discussed:

- The following equipment is offered for sale "as seen and as is".
- No guarantees or warranties will be provided.
- Inspection at Staplethorne's premises is welcomed at mutually convenient times.
- Where appropriate, equipment may be tested at Staplethorne's premises if the prospective purchaser is competent in the use of such equipment and has appropriate safety training and certification.
- It is for the purchaser to check safety aspects of the equipment, including but not limited to: electrical, mechanical, radiation (X-rays from XRF set), vacuum, liquid nitrogen storage vessels.
- It is for the purchaser to arrange for and pay for the collection and insurance of any purchased items.
- Offers to purchase the items on the following pages are invited.
- Any requested training in the use of equipment will be charged (time and expenses).
- We are happy to discuss by phone (01404 42455) or Skype (DevonScience), and of course in person here.

On the following pages we list the main items for sale. There are also some other materials that may be of interest seeing when visiting.

## X-Ray Fluorescence Elemental Anlaysis Set

- **1.** Jordan Valley Desktop X-Ray Fluorescence Analyzer (35KV, selectable X-Ray filters) + Compaq DeskPro (with installed software)
  - X-Ray Chamber Model number: EX-310LC

Further details are available in the separate product leaflet.

Note: This system is currently in use and so it can be seen working.





#### **NIM Crate & Equipment**

2.(i) Canberra 12 Slot NIM Crate

Model Number: 7029



2.(ii) Canberra Ratemeter

• Model Number: 2081

**2.(iii)** Canberra Spectroscopy Amplifier

• Model Number: 2020

**2. (iv)** Ortec Selectable Active Filter Amplifier

• Model Number: 44440A

2. (v) Ortec Baseline Restorer

• Model Number: 438

**2. (vi)** Ortec Timing Single Channel Analyzer

• Model Number: 420

**2. (vii)** Princeton Gamma-Tec Bias Supply

• Model Number: 315A

2. (viii) Canberra S100 MCA board

• NIM module missing

#### **Vacuum Equipment**

- **3.** Edwards Turbomolecular Pump
  - Model number: ETP 63/80
  - Includes vacuum chamber with connectors, valves, gauges, etc.





- **4.** Edwards 12 Two Stage Pump System comprising Edwards Roughing/Rotary Pump + Edwards Pirani 14 Vacuum Gauge + Edwards Vapour Pump
  - Vapour Pump model number: EO2
  - Rotary pump 12 Litres
  - Additional 1.5 Litre Edwards rotary pump.









**5.** Oxford Instruments Intelligent Liquid Nitrogen Level Meter

• Model Number: ILM201

**6.** Edwards Penning Gauge Reader

• Model Number: 505

7. Edwards Pirani Gauge reader

• Model Number: 501

8. Edwards Controller

• Model Number: 1105

9. Edwards Turbo Pump Controller











# **Liquid Nitrogen Storage**

**10.** Large Liquid Nitrogen Storage Vessel

**11.** Small Liquid Nitrogen Dewer



### **Detectors**

**12.** Princeton Gamma-Tech Intrinsic Germanium: X-Ray and Gamma-Ray Detector

• Model Number: IGP-210

INTRINSIC GERMANIUM

13. Canberra Si (Li) X-Ray Detector



### **Research Detectors**

14.

All these units were designed for high count rate hyper-pure germanium X-ray detectors.

Some at least still contain detectors. These may be of interest for research projects and Staplethorne would be interested in discussing potential collaboration.

**15.** 

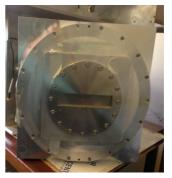
**16.** 

**17.** 

18.











### **Miscellaneous Items**

19. Edwards Pirani Vacuum Gauge Head

• Model Number: PR10-S



20. Electro High Vacuum



**21.** Edwards Penning Vacuum Gauge Head

• Model Number: CP25-K



22. Edwards Pirani Head Gauge

• Model Number: CP25-K



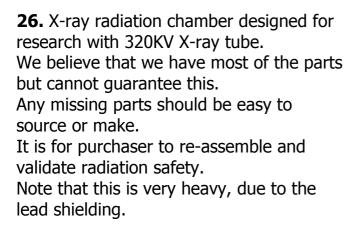
23. Edwards Pipeline Valve

• Model Number: PV25



### 24. Edwards Speedivalve x4

**25.** Pipeline T-junction plus many other vacuum 'bits and bobs'.



**27.** X-ray detector port for above chamber.

Allows for X-ray detector to be mounted at a range of geometries with respect to the X-ray tube and sample position.







