



Monday, February 11, 2002

The following items are required to set up a complete Fission Track Dating laboratory :

<b>Equipment</b>	<b>Supplier or agent</b>
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**Rock crushing laboratory**

- Dust extraction system
- Protective clothing, heavy gloves and glasses, hearing protection
- Safety signs
- First Aid kit
- Benches
- Hydraulic press
- Jaw crusher
- Plate mill
- Plastic Bags
- Cleaning brushes for machines
- Sieves

**Initial mineral separation laboratory**

- Water
- Safety signs
- First Aid kit
- Funnels
- Bench
- Sink
- Vibratory feeder and Wilfley vibration table
- Temperature stabilised oven
- Aluminium/steel Trays

**Mineral separation laboratory**

- Protective clothing, chemical-proof gloves and glasses
- Safety signs
- First Aid kit
- Benches
- Sinks
- Vertical Frantz magnetic separator
- Heavy liquid (sodium polytungstate)
- Large open-mouth separation funnels
- Wide-mouth conical flasks, 2 Litre capacity
- Infrared lamps
- Coffee filter papers
- Whatman filter papers No. 4
- Electric stirrers
- Vacuum pump

Page 1 of 2

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### **Mineral separation laboratory (cont'd.)**

- Horizontal Frantz magnetic separator
- Fumehood
- Di-iodo-methane (DIM) separation liquid
- DIM separation funnels - 50ml
- Steel stands
- Acetone
- Distilled water
- Steel plates

### **Slide preparation laboratory**

- Bench
- General purpose hand tools
- Protective clothing, chemical-proof gloves and glasses
- Safety signs
- First Aid kit
- Diamond tip scribe
- Microscope slides
- Jig to cut slides
- Epoxy resin (Araldite)
- Temperature-controlled hotplate for heat-curing mounted samples
- Grinding and polishing machine
- Polishing cloth
- Grinding grain mount sample holder
- Carborundum wheels
- Aluminium oxide powder
- Etchant for grain mount (HNO<sub>3</sub>) 5M
- Heat sealing machine
- Heatshrink tubing
- Aluminium foil
- Sharpened scribe to make alignment marks
- Irradiation cans (supplied by atomic reactor operators)
- Etchant for mica (HF) 48%
- Slide mounting jig
- Standard glass detectors
- Mica (muscovite)
- Standard samples (Fish Canyon tuft, Durango, etc.)
- Teflon for embedding zircon samples
- Prefabricated adhesive zero reference marks
- Scalpel
- Scissors
- Distilled water
- Microscope (Zeiss, Leica, Nikon or Olympus)
- Autoscan FTD system (Trakscan for Windows)
- Tweezers
- Adhesive tape