Electron microscopy

Siemens Elmiskop I (1957, from US Steel Pittsburgh)
- Accessory diffraction lens controller
- Accessory shutter controller with air coil
- HT Tank and all electronics included, but no power supply cabinet
- Mechanical vacuum pump for roughing/backing
- Box of misc. spare parts.
- Lens and HT supply units from rack (rack not present)
- Microscope stand
- Microscope column sections (lenses)
- Homemade control for diffraction lens
- Spare tank in EM room

Siemens Elmiskop Ia (2 units, 1964 and 1969)
- 1964 unit in operation
- Exposure meter / electrometer (2 units)
- Many spare parts, incl spare HT tank, regulator tank, and cable
- Spare HT cable for Siemens Elmiskop
- The column from 1969 Siemens Elmiskop
- The stand, electronics rack, tank, and measuring resistor tank from 1969 Elmiskop.

Veeco MS-9 mass-spectrometer helium leak detector and Hastings dual-head thermocouple gauge

Modified Denton DV-502 (1960s)
- Granville-Philips Film Thickness Monitor (on DV-502)
- Granville-Philips ionization gauge controller (on DV-502)
- Leybold-Heraus Turbotronix NT150/360 TMP power supply (on DV-502)
- Leybold-Heraus Turbopump 150 (on DV-502)

Vaian Ratiomatic 843 vacuum gauge controller
NRC 836 Vacuum gauge controller
Leybold-Heraus Turbotronix NT120 TMP power supply
Leybold-Heraus Turbopump 150VH
Leybold-Heraus Turbopump 151

LKB Ultrotome 1 (4801A plus 4802A)
- 15 IVIC knives
- 2 DuPont knives
- 3 LKB knife holders
- 1 Diatome knife

LKB 7801 Glass knife maker (incl. spare glass strips)
Gatan 622 intensified camera for JEOL TEMs
Gatan US 4000 CCD camera for JEOL TEMs
Narashige Model MD 202 micromanipulator
Several stereo viewing devices
**Light Microscopy**

Reichert transmitted light florescence (1960s)
- Homemade power supply 6V
- Lenses:
  - Zeiss Neofluor Planapo 40X/0.9 NA oil/water/glycerin 160mm TL
  - Zeiss Neofluor Planapo 25X/0.8 NA oil/water/glycerin 160mm TL
  - AO 20X/1.20 NA 160mm TL
  - AO 10X/0.30 NA 160mm TL
  - Modified AO condenser NA 1.25
  - Hungarian DF and “3D” condenser (in wood box with other accessories)
    - Replaceable front lenses NA 0.8, 0.85, 1-1.2, 1.25
  - Reichert condenser mounting ring

Leitz polarizing microscope (1938)
- Leitz power supply 6V, 85W
- Several lenses in wooden box:
  - 100X / NA 1.30 160mm TL
  - 62X / NA0.85 160mm TL
  - 45X / NA 0.65 160mm TL
  - 10X / NA 0.25 160mm TL
  - 6X / NA 0.18 160mm TL
  - 3.2X / NA = ?

Nikon phase-contrast microscope (1960s)
- Nikon power supply 12V, 100W
- Lenses:
  - 100X / NA 1.25 160mm TL
  - 40X / NA 0.80 160mm TL
  - 20X / NA 0.40 160mm TL
  - 10X / NA 0.20 160mm TL
  - 4X / NA 0.20 160mm TL

Zeiss Jena Interphako microscope (1970s)
- Jena power supply, 12VAC
- Lenses:
  - 100X/ 1.30 NA TL = infinity
  - 63X/ 1.2 NA TL = infinity
  - 25X/ 0.5 NA TL = infinity
  - 6.3X/ 0.08 NA TL = infinity

HD microscope camera with Samsung Android cellphone for viewing
- Zeiss condenser mounting ring
- Light microscope stage (unknown mfgr)
- Parts for microscope stage (unknown mfgr)
- Digital camera and adapters – for connection to a laptop
- Diatom test sample
- Zeiss inverted microscope
- B&L dissecting microscope
- Leica illuminator
- B&L illuminator
- K. Nagayama plastic copy of Leeuwenhoek microscope
Spare Light microscope lenses

Objective lenses:

- Leitz 54X / NA 0.95 170mm TL
- Olympus Plan 20X / NA 0.40 160mm TL
- Zeiss Planapo 100X / NA 1.25 TL = Infinity
- BL 100X / NA 1.25 160mm TL
- Zeiss Neofluar 16X NA 0.40 160mm TL
- Leitz 170X / NA 1.10-1.32 170mm TL
- Zeiss Planapo 10X / NA 0.40 160mm TL
- Olympus Planapo 40X / NA 0.8 oil 160mm TL
- AO 87X / NA 1.25 oil WD = 1 mm 160mm TL
- BL fl = 24mm / NA 0.2 160mm TL
- BL fl = 10.25 / NA 0.40 160mm TL
- BL fl = 1.8 mm / NA 1.30 215mm TL
- BL fl = 4 mm / NA 0.86 215mm TL
- BL fl = 39mm / NA 0.40 215mm TL
- BL ? low magnification

Eyepieces:

- 10X 40mm diameter (2)
- AO 10X 23mm
- Zeiss 10X 23mm
- Leitz 10x 23mm (2)
- AO Barlow 23mm
- Leitz Barlow 23mm
- Zeiss adjustable projector 10X / 18 35mm diameter
Other Instruments

- Diffraction attachment for Elmiskop I [already mentioned]
- Shutter controller for Elmiskop I [already mentioned]
- Photometer/shutter controller for Elmiskop Ia (2 units) [already mentioned]
- Polepieces from Elmiskop I #216
- Polepieces from Elmiskop I from Pittsburgh
- Homemade Siemens plate-numbering device
- BL binoculars (66X) with missing eyepieces
- JEOL TEM binoculars
- Low-end light microscope in wooden box
- Spencer Graf/APSCO light microscope with mirror but no condenser (in radio room)
  - 40X / NA 0.65
  - 10X / NA 0.25
- Photographing attachments for light microscopes, including three 35-mm cameras (in wooden box)
- Precision Scientific Model 75 mechanical vacuum pump
- MacLoud mechanical (mercury) vacuum gauge
- Branson B-220 ultrasonic bath
- Granville-Philips series 275 full-range vacuum gauge
- Dual-sensor Hastings VT-652 thermocouple vacuum gauges (2 units)
- Spare ion-gauge tubes and vacuum fittings
- NRC 836 vacuum ionization gauge (2 units -- one also in radio room)
- NRC 802A thermocouple vacuum gauge
- Leitz inverted light microscope with three objective lenses
- Wood box for the Leica polarizing microscope in the EM room

Electronic test equipment

- Weston 280 mA meter (very early, in original box)
- Weston 0 – 0.03 – 0.3 -3 A meter (very early, in original box)
- Leeds and Northrup test set 5430-AM-1
- US Signal Corps wavemeter TS-117/GP
- General Radio 432-N decade resistor box
- General Radio 14331 decade resistor
- Heathkit DR-1 decade resistor box
- Keithly Modell 471/4170 picoammeter
- Mechanical electrometer – unknown manufacturer (0-100 scale)
- Leeds and Northrup mechanical electrometer (+/1 15 scale)
- Rubicon electrometer (Wood box – very early)
- Industrial Instruments RC16B2 conductivity bridge
- Wavetek Model 180 function generator
- Hewlett-Packard function generator
- Level Electronics Type 9B DC Multimeter
- Manchester, NH Wattmeter (400V, 5A)
- Tektronix 5111 storage oscilloscope with no plug-ins
- Tektronix 5103N Single-beam storage (1970s, last oscilloscope with plug-ins)
  - 5A18N Dual trace amp
  - 5B12N Dual time base
Self-powered in Tek TM503 for 5000-series plugins
  AM501 operational amp
  PS 503 Dual power supply
  DM501 Multimeter

Self-powered in Tek TM503 for 5000-series plugins
  PG602 Pulse generator
  PG506 Pulse generator
  PG501 Pulse generator

Tektronix 561A (1960s, first oscilloscope with plug-ins)
  3A74 amplifier (4 channels)
    2B67 Time base

Tektronix 564 (1960s, first series-produced storage oscilloscope)
  3A1 amplifier
  2B67 time base
  2A63 amplifier
  U-Tech Characteristic curve tracer

Tektronix 2213A oscilloscope (60 Mhz)
Siemens Oscillarzet M765 mini-scopes (2 units)
Tektronix 502 Dual-beam oscilloscope (early 1960s, first commercial dual-beam oscilloscope)
Keithly 610 Electrometer (AC supply) (2 units)
Heathkit 1G-42 Signal generator (100 Khz to 30 Mhz)
Yew VOM
Microna VOM
AVO VOM (to 3000V)
Triplett model 630 VOM
HP 412A VTVM
VIZ VTVM
Miconta DMM
Data-Technology Corp. DMM (with Nixie tubes)
HP 3430A DC voltmeter (100mV to 1000V, Nixie tubes)
RCA WA-44 audio generator
Yellow Springs 43TD tele-thermometer
Metered Variac model 24 W20HMT 3A

Miscellaenous
  Sherline 4400 Lathe incl accessories
  Sherline 5400 Milling machine incl. accessories

  Mitutoyo PJ-250 optical comparator with 10X, 20X, and 50X lenses and right-angle mirror for epi-illumination
Photography and video equipment

Simons-Omega enlarger with Componon lenses with EM film holder
Durst S45EM point-source enlarger
   3 Schneider objective lenses (for 35mm to 3.25x4” negatives)
   12 condenser lenses (85-240 mm)
   Variac for illumination
Jobotronic 2000 exposure controller
Lektra Lab PTM-YA exposure controller
Ilford print processor (uses “Ektamatic” chemicals)
Film reels, racks and tanks for developing
Technal print dryer
Nikon “Super-Coolsan” LS-9000ED film scanner
Backlight light box
Pacific Image PS3650 slide scanner
Kodak P880 digital camera
Star 2000 slide viewer
Kodak Carousel slide projector with case and manual loader
Carson Pro “Magnivisor Deluxe” slide viewer
Home-made slide copier
Olympus flash unit
Olympus Auto Bellows
Right-angle viewer for Olympus OM camera
Accessories for Olympus camera
Olympus OM-1 camera in case
50mm / 1.4 lens on OM-1
85-205mm / 3.8 lens
Two Olympus OM-4 camera bodies
35 mm / 2.8 lens
20 mm / 2.8 lens
28-90 mm / 2.8 lens
Sony TRV-140 camcorder
Grundig multistandard (NTSC, PAL, SECAM) analog TV
Mitsubishi HS-45TO VCR
Panasonic DMT T2020 DVD recorder