

APPENDIX-B

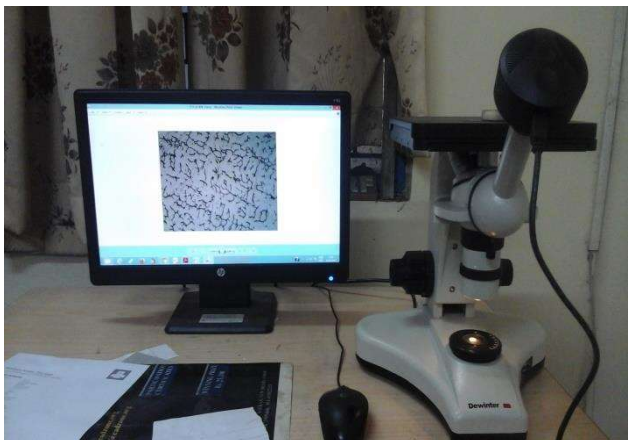
Apparatus used

B-1 Light Optical Microscopy (LOM)

Make	: DEWINTER ITELY
Model	: DMI EDUCATOR
Camera model	: Image sensor 1/2" CMOS
Image format	: 1282x1024
USB	: 2.0 compatible
Software	: DEWINTER MICRO CAM 4.0 SOFTWARE

B-2 Disk polishing machine

Make	: METCO (Channi)
Model	: PMV 009
Disk size	: 8" disc polisher
Motor capacity	: 0.5 HP AC
Speed	: 50 to 1000 rpm
Machine size	: 710x660x310 mm



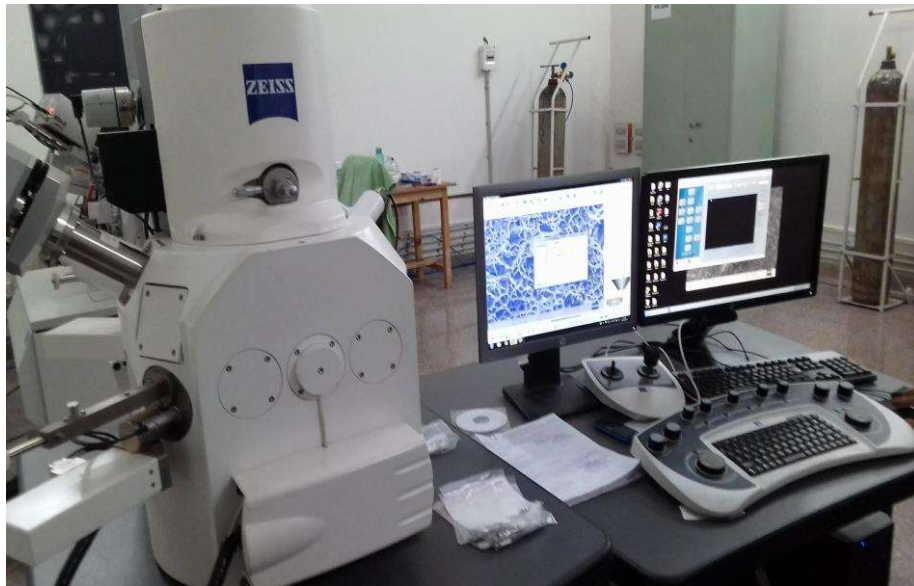
B-1 Set up for metallurgical microscope



B-2 Double disk polishing machine

B-3 Scanning Electron Microscopy (SEM)

Make	: ZEISS (Germany)
Model	: EVO 18
Magnification	: 5x to 300,000x
Vacuum system	: TMP & rotary to 1.5×10^{-3} Pa
Specimen height	: 80mm at 10mm WD
Resolution	: 3nm@30kv(SE with W) 4.0nm @ 30kv VP model



B-3 Scanning Electron Microscopy (SEM) and EDS apparatus

B-4 Microhardness tester (VHN)

Make	: HTSS
Model	: HV-1000DT
Testing force	: 10 to 1000 gram
Min measuring unit	: $0.25 \mu\text{m}$
Magnification power	: 100X

Hardness value range : 1HV-4000 HV

Instrument size : 490x185x515mm



B-4 Vickers hardness tester