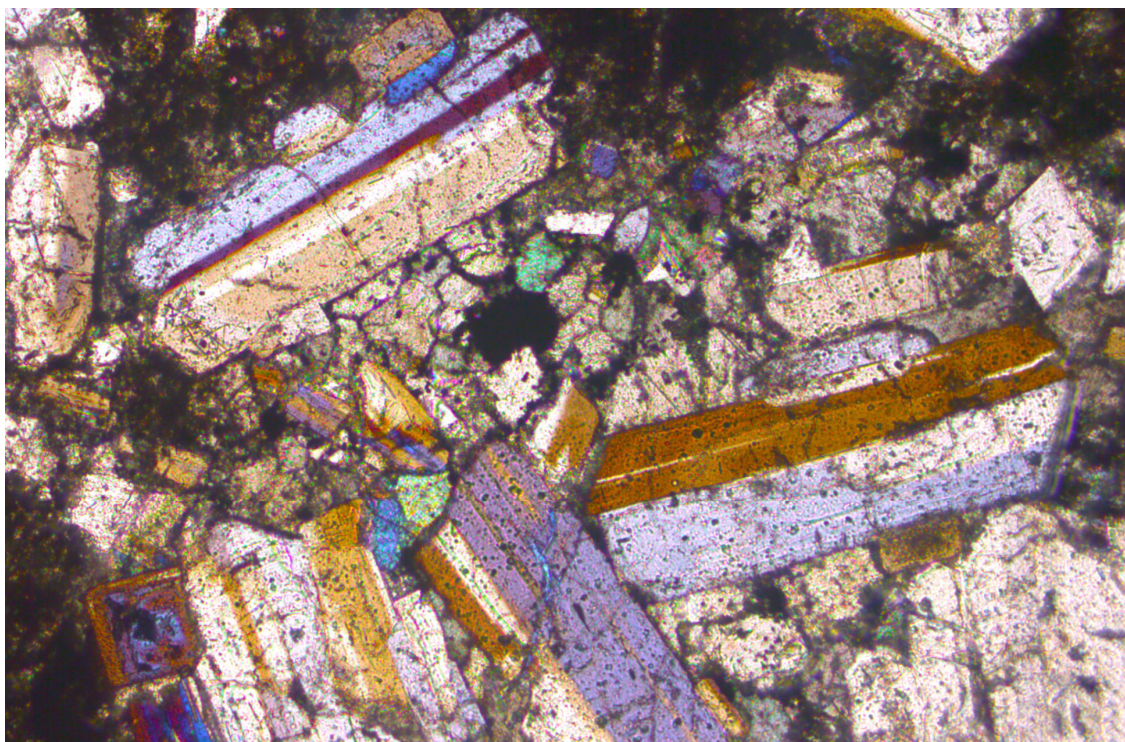




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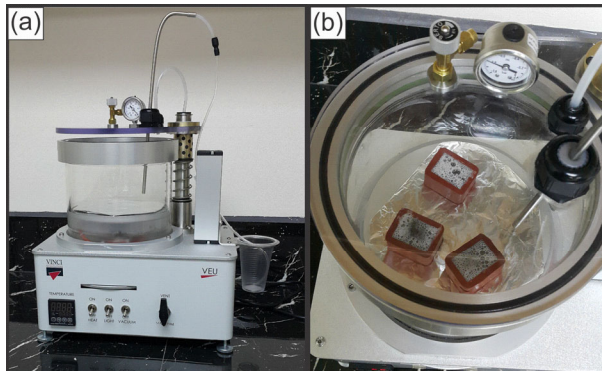
## DEPARTMENT OF CHEMICAL ENGINEERING PETROLEUM GEOSCIENCE THIN SECTION LABORATORY

The Petrographic Thin Section laboratory uses research-leading precision rock cutting, grinding, lapping, and polishing machines in order to achieve the best possible representation of rock microstructure with rapid turnaround time.





**1. Impregnating rock samples with resin.**

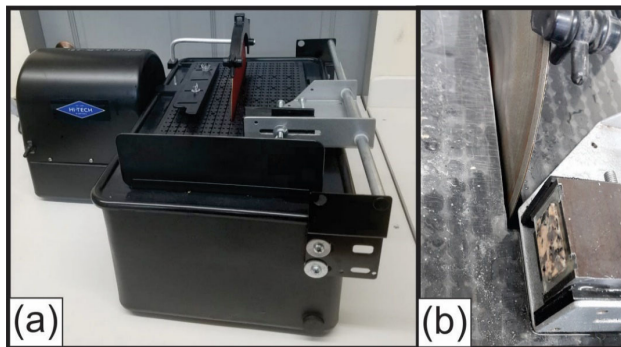


a) Vacuum embedding unit. b) Resin infiltrating the pore spaces of the sample.

**2. The bonding jig is used to glue the squared rock face to the glass.**

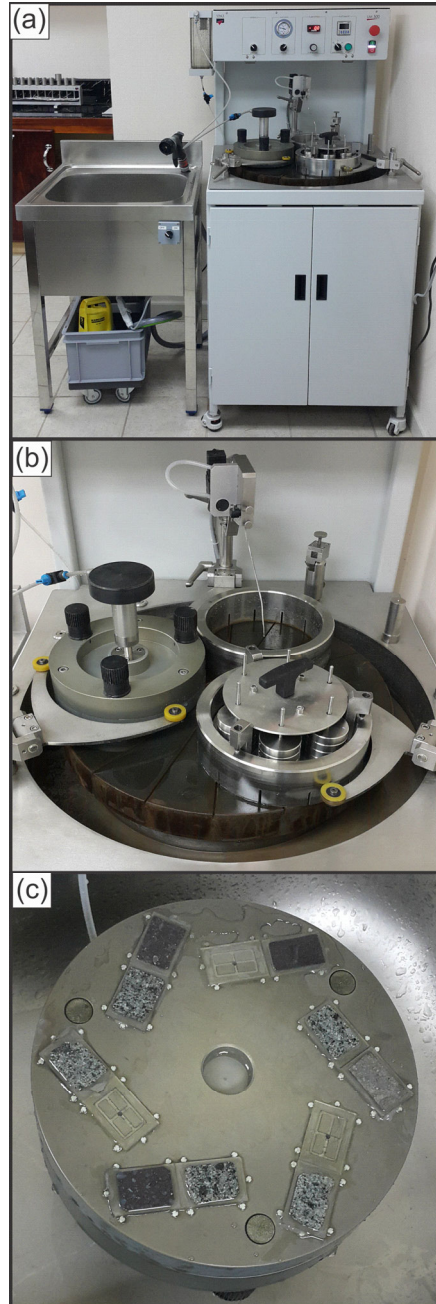


**3. Slicing sample to approximately 800  $\mu\text{m}$  thick.**



a) Diamond blade saw. b) Sample, glued on glass, is held in holder to be precisely cut.

**4. Lapping samples to reduce their thickness to the recommended 30  $\mu\text{m}$ .**



a) Automated Lapping machine.  
b) Thin section and chip lapping jig.  
c) Thin section holder.

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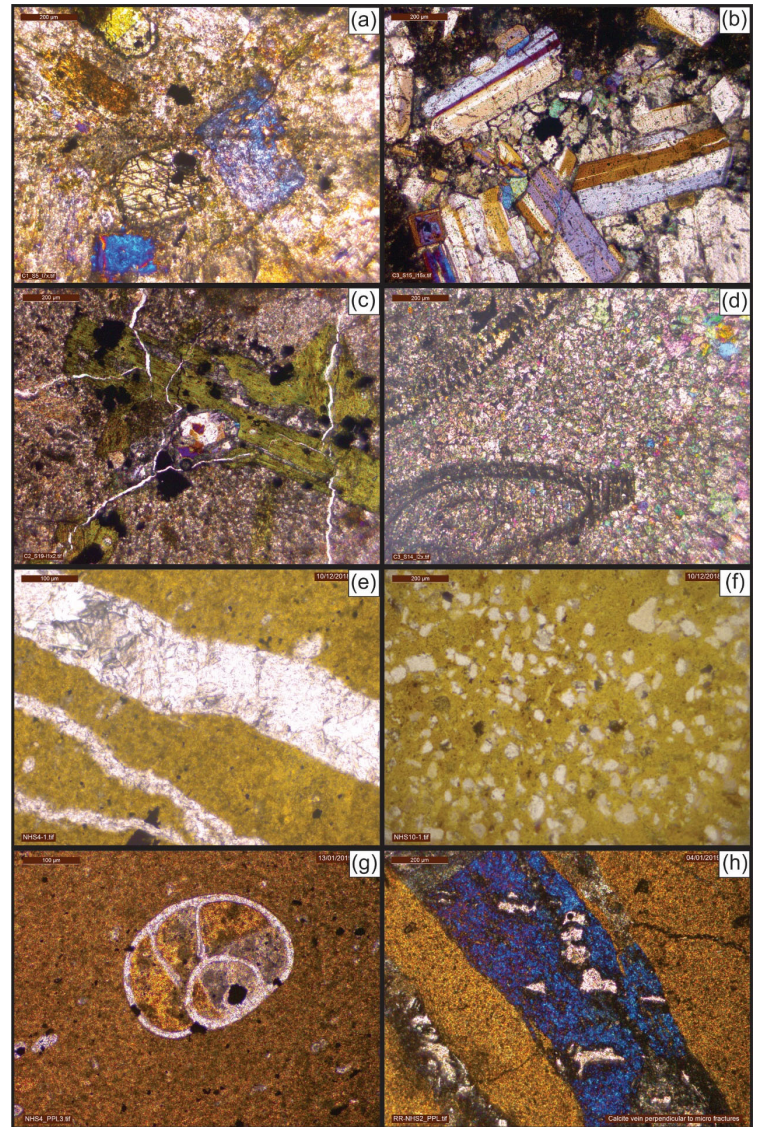
5. Simultaneous flawless polishing of up to 4 thin sections using the automated polishing machine.



6. An optical microscope with high-quality color digital images capabilities is used to analyze the thin sections



## Sample of Results



Samples from Montserrat's geothermal reservoir (a, b, c and d).  
Samples from Trinidad's source rock (e, f, g, and h).

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