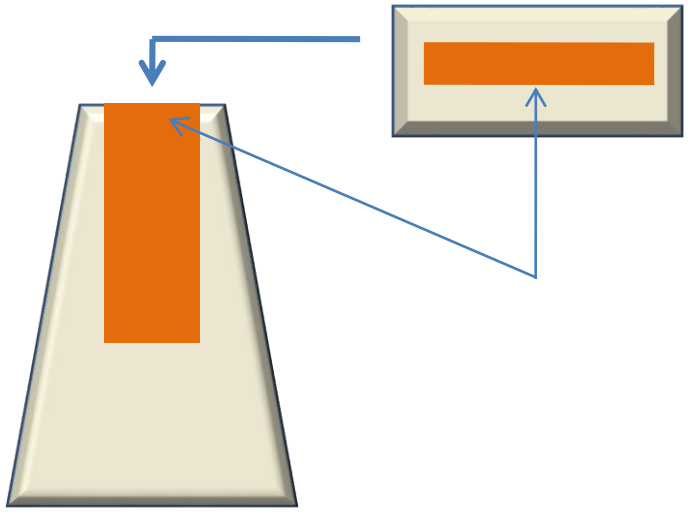
ROG MICROSCOPY & CONSULTING SERVICES LLC
3702 N.Highway A1A (Suite 802), Fort Pierce, FL 34949-8552
Email: rogmicro@gmail.com Telephone: 585-503-4050

Case Study: Preparation of Aluminum foil sample for Scanning Electron Microscopy (SEM) or Infrared Analysis (IR).

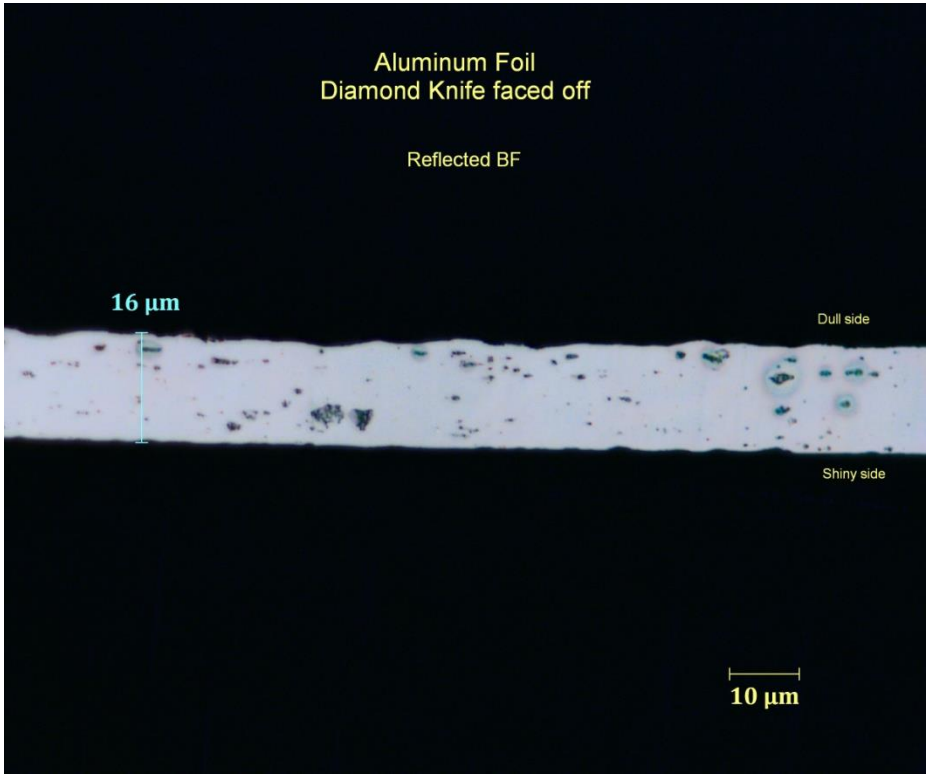
The foil was prepared for Cross section by embedding in epoxy and facing off using a Leica 2165 Microtome equipped with a diamond knife. The faceoff plug can be examined using Reflected Optical Microscopy or mounted onto a 45° SEM stub, or dry cross sections placed on flat SEM stubs for examination in a Scanning Electron Microscope.



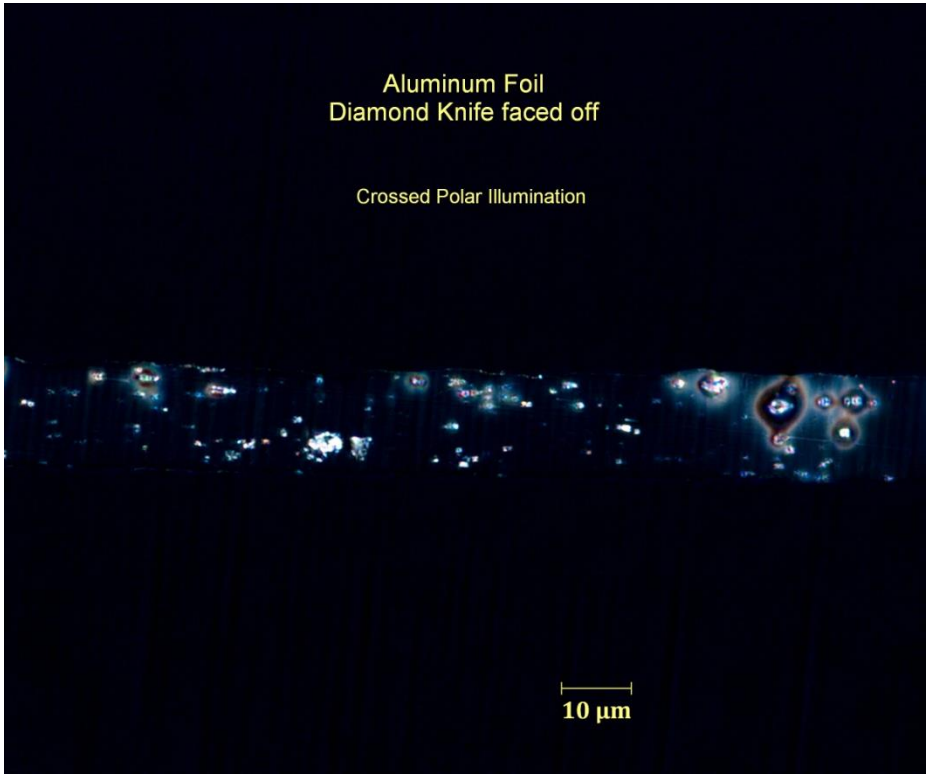
Sample plug

Aluminum Foil

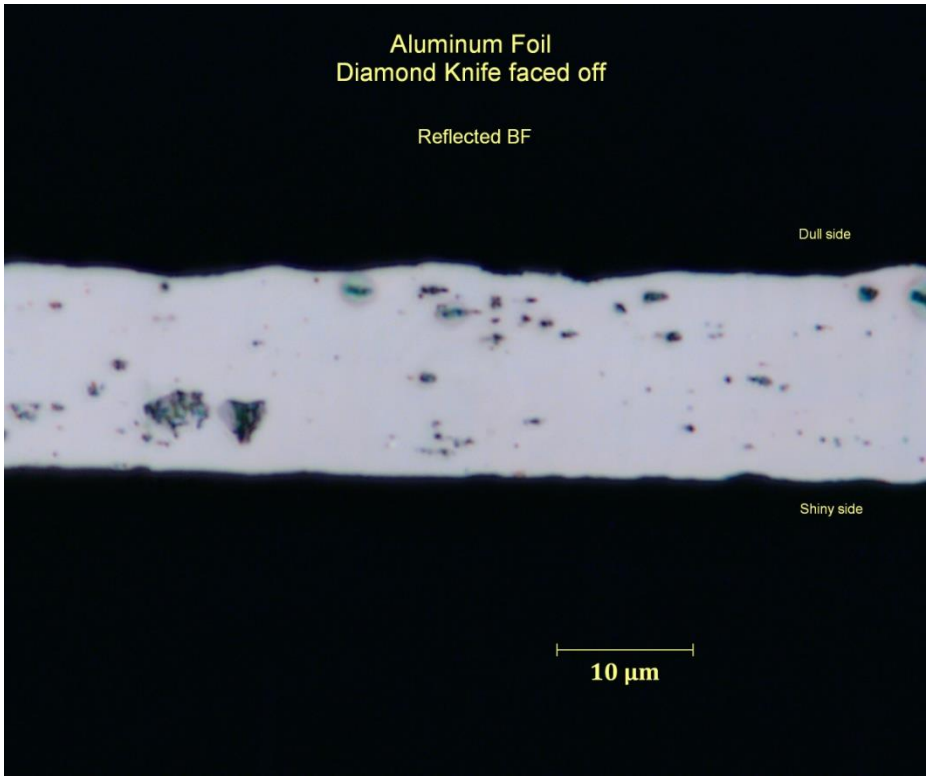
Faced off sample plug imaged using an Olympus BX60 Microscope. Note that the Aluminum foil contains some particulates in the film. These particles are birefringent and can be further analyzed using Scanning Electron Microscopy equipped with Energy Dispersive X-Ray Spectroscopy, or Infrared Microspectroscopy.



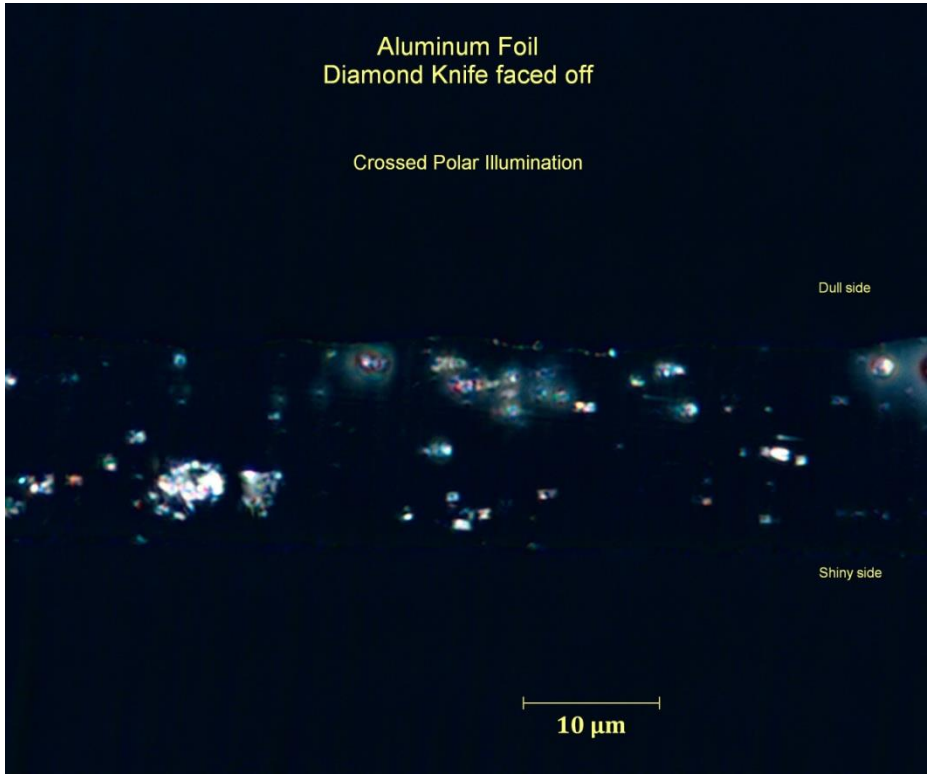
Reflected BF



Reflected Crossed Polars



Reflected BF



Reflected Crossed Polars