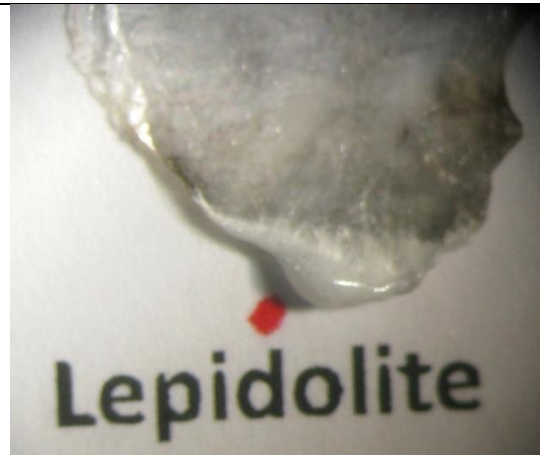


Fusibility Testing of Some Mica Minerals - Tom Mortimer

Peter Cristofono raised a question on the fusibility of zinnwaldite. I knew that lepidolite was easily fusible and that muscovite was not (hence its use in stove windows and electrical insulators). Since I have many mica species in my collection, I decided to investigate. The results of my testing seven mica minerals is shown below. I used a propane torch for these tests and heated each sample to glowing red hot. I mounted the heat tested grains in a perky box. I will bring test result set to the March meeting for those desiring a first-hand look.



Perky Box with fused mica samples.
Red dots indicate heated zones.



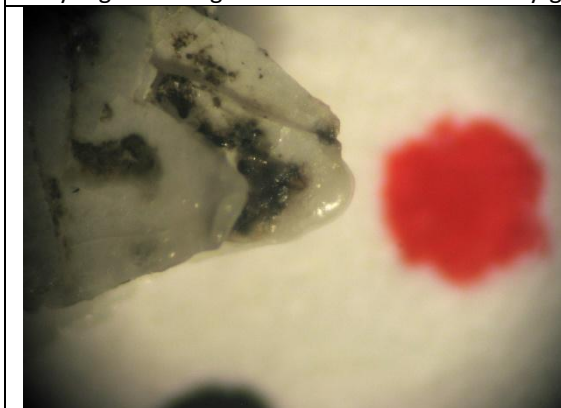
Lepidolite Dunton Quarry, Newery, ME
Fuses easily to glassy globule that is fluorescent



Muscovite Globe Mine, Springfield, NH
Very slight melting on thinnest surfaces to milky-glassy



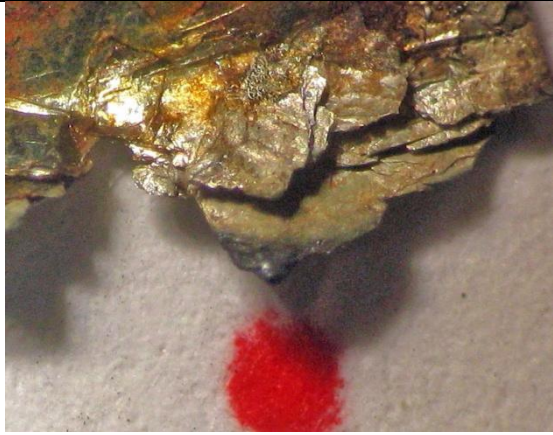
Biotite Stop & Shop construction site Milford, NH
Some fusing to black globule on thin edge



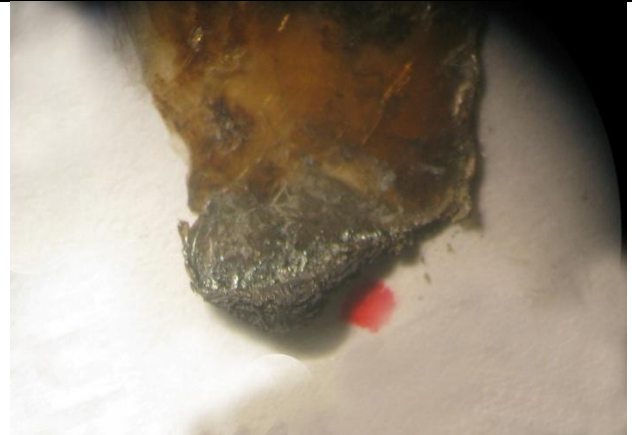
Margarite Wright Mine, Chester, MA
Thin edge fuses to milky globule



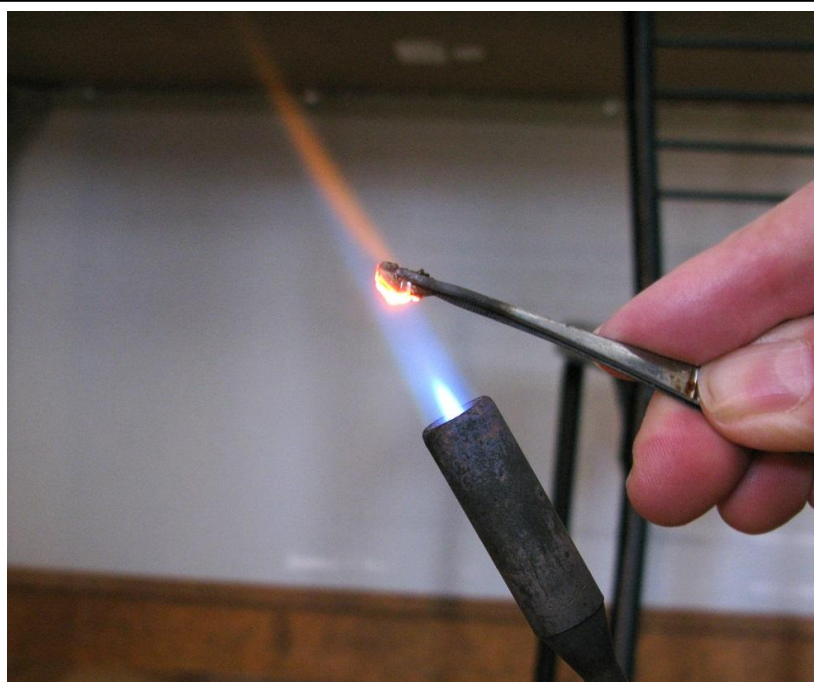
Astrophyllite St. peter's Dome, Colorado
Fuses to black glassy magnetic globule



Clinoclone Soapstone Quarry, Richmond, NH
Fuses to black globule with difficulty on thinnest edge



Zinnwaldite S. Percy Peak, Strafford, NH
Fuses to rough, black magnetic, globule



Fusibility testing a mica group specimen in a propane torch flame.
Sample held with metal tweezers.