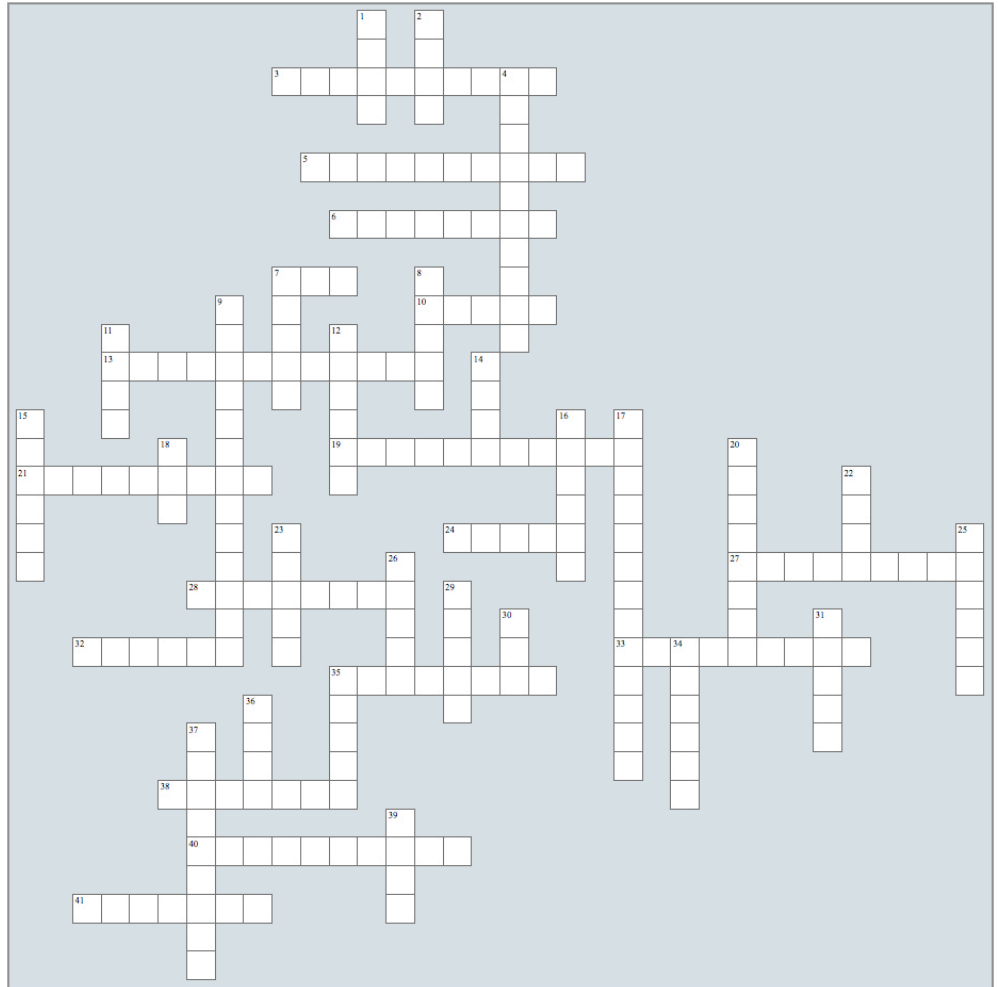


# Polarized Light Microscopy

## ACROSS

3. Areal proportions that are raised to the  $3/2$  power yield "\_\_\_" proportions.
5. Angle of incidence equals angle of "\_\_\_".
6. Quartz is a member of the "\_\_\_" crystal system.
7. Point group of mineral barite.
10.  $2V$  is the angle between "\_\_\_" axes.
13. Uniaxial negative mineral; conoscopic illumination; optic axis perpendicular to microscope stage. You see an "\_\_\_" figure.
19. Pink to green equals "\_\_\_".
21. Uniaxial minerals viewed directly down the optic axis are "\_\_\_".
24. Diminutive for Rebecca.
27. The distinction between glass and liquid is made solely on the basis of "\_\_\_".
28. Filter above microscope stage that transmits light that vibrates only in an east-west direction.
32. Shape of indicatrix in cubic crystals.
33. Cools steam, yields water.
35. A crystal's optic angle  $[2V]$  is acute about the principal vibration direction Z. The crystal is said to be optically "\_\_\_".
38. An aluminosilicate with chains of O-Al that are linked by the remaining Si, Al, and O ions. The optic axial plane is almost perpendicular to  $\{100\}$ , and is inclined at approximately  $30^\circ$  to  $\{010\}$ .
40. The Dodo bird was hunted to this end.
41. A type of equal-area stereonet.



## DOWN

1. "\_\_\_" rotation axes are used in the most popular types of universal stage.
2. Point-counted modal proportions are percentages of "\_\_\_".
4. In 1891, Fletcher proposed an "\_\_\_", a purely imaginary geometric figure.
7. Molar formula weight divided by mineral weight equals number of "\_\_\_".
8. As the plane of focus approaches the stage, the Becke line moves toward the substrate with "\_\_\_" refractive index.
9. Wavelength affects the "\_\_\_" only slightly.
11. Refractive indices of minerals composed of atoms with large atomic numbers are comparatively "\_\_\_".
12. Volumetric proportions times densities yield "\_\_\_" proportions.
14. Locate by orthoscopic illumination of uniaxial crystal.
15. Ideal thickness is of rock section for petrographic studies is "\_\_\_" micrometers.
16. Equals the difference in refractive indices of a mineral and its surrounding medium.
17. Vibration and propagation directions of light in a mineral are always mutually "\_\_\_".
18. Indicates that the microscope objective is strain free.
20. Felspars have perfect  $\{001\}$  "\_\_\_".
22. Biaxial mineral, conoscopic light; vertical acute bisectrix; points of emergence of the two optic axes are sites of "\_\_\_" retardation.
23. Universal stage measurements often are plotted on this type of stereonet.
25. Mineral in first-order red plate.
26. Remove the microscope's ocular and place a uniaxial crystal between crossed polars. The interference figure is a "\_\_\_".
29. German manufacturer of high-quality optics. Rhymes with bytes.
30. The last name of Roy's light spectrum.
31. German manufacturer of high-quality optics.
34. First name William; most microscopes have both upper and lower "\_\_\_".
35. Optic "\_\_\_" contains and is defined by the optic axes.
36. Two crystal individuals, on either side of a N-S or E-W reflection plane, that appear and extinguish sequentially on rotation of the polarizer.
37. The lenses of the common negative oculars are "\_\_\_" oculars.
39. Mineral in  $1/4 \lambda$  plate.