## Colimaite $K_3VS_4$

**Crystal Data**: Orthorhombic. *Point Group*: 2/*m* 2/*m* 2/*m*. As 'hedgehog'-like spherical aggregates to 100 $\mu$m comprised of divergent fibrous crystals, to 50 $\mu$m.

**Physical Properties**: *Cleavage*: None. *Tenacity*: Brittle. *Fracture*: Splintery. Hardness = n.d. D(meas.) = n.d. D(calc.) = 2.235

**Optical Properties**: Qpaque. *Color*: Dark golden in reflected light. *Streak*: Yellow-green. *Luster*: Resinous to greasy.
*Optical Class*: n.d. Nonpleochroic.

**Cell Data**: *Space Group*: *Pnma*. $a = 9.139(5)$ $b = 10.625(7)$ $c = 9.135(3)$ $Z = 4$

**X-Ray Diffraction Pattern**: Colima volcano, Mexico.
2.806 (100), 3.463 (73), 2.785 (70), 2.928 (67), 2.677 (63), 3.229 (57), 3.237 (53)

**Chemistry**:

| | (1) |
|---|---|
| S | 43.29 |
| K | 39.36 |
| V | 17.41 |
| Na | 0.43 |
| Total | 100.49 |

(1) Colima volcano, Mexico; average electron microprobe analysis supplemented by Raman spectroscopy; corresponding to $(K_{2.95}Na_{0.06})_{\Sigma=3.01}V_{1.03}S_{3.97}$.

**Occurrence**: A sublimate found in an active volcanic fumarole.

**Association**: Cristobalite, arcanite, thenardite, barite, native gold, shcherbinaite, vanadium.

**Distribution**: From the Colima volcano crater, Mexico.

**Name**: For the discovery locality, the *Colima* volcano.

**Type Material**: Sociedad Mexicana de Mineralogía (Facultad de Ingeniería, Universidad Nacional Autónoma de México) (FIM 08/01).

**References**: (1) Ostrooumov, M., Y. Taran, M. Arellano-Jiménez, A. Ponce, and J. Reyes-Gasga (2009) Colimaite, $K_3VS_4$ - a new potassium-vanadium sulfide mineral from the Colima volcano, State of Colima (Mexico). Revista Mexicana de Ciencias Geológicas, 26, 600-608.