Attikaitē  

**Crystal Data**: Orthorhombic.  
*Point Group*: \(2/m \ 2/m \ 2/m \) or \(mm2\).  
As bent, scaly crystals flattened on \([001]\) to 0.080 mm; in spherical aggregates to 0.3 mm.

**Physical Properties**:  
*Cleavage*: Perfect on \(\{001\}\).  
*Tenacity*: Flexible.  
*Hardness*: 2-2.5  
\(D(\text{meas.}) = 3.2(2)\)  
\(D(\text{calc.}) = 3.356\)

**Optical Properties**:  
*Color*: Pale blue to greenish blue; colorless in transmitted light.  
*Streak*: Very pale blue.  
*Luster*: Vitreous.  
*Optical Class*: Biaxial (-).  
\(\alpha = 1.642(2)\)  
\(\beta = \gamma = 1.644(2)\)  
\(2V(\text{meas.}) = 10(8)^o\)  
\(2V(\text{calc.}) = 0^o\)  
*Orientation*: \(X = c\).

**Cell Data**:  
*Space Group*: \(Pban\), \(Pbam\), or \(Pba_2\).  
\(a = 10.01(1)\)  
\(b = 8.199(5)\)  
\(c = 22.78(1)\)  
\(Z = 4\)

**X-ray Powder Pattern**: Christiana no. 132 mine, Kamareza, Laurion District, Attika, Greece.  
22.8 (100), 5.01 (90), 2.780 (70), 11.36 (60), 3.38 (50), 2.503 (50), 2.682 (30)

**Chemistry**:  
\begin{align*}
\text{MgO} & : 0.17 \\
\text{CaO} & : 17.48 \\
\text{FeO} & : 0.12 \\
\text{CuO} & : 16.28 \\
\text{Al}_2\text{O}_3 & : 10.61 \\
\text{P}_2\text{O}_5 & : 0.89 \\
\text{As}_2\text{O}_3 & : 45.45 \\
\text{SO}_3 & : 1.39 \\
\text{H}_2\text{O} & : 7.61 \\
\text{Total} & : 100.00 \\
\end{align*}

(1) Christiana no. 132 mine, Kamareza, Laurion District, Attika, Greece; average of 4 electron microprobe analyses, \(\text{H}_2\text{O}\) by difference, IR confirms \(\text{OH}\) and \(\text{H}_2\text{O}\), corresponding to \(\text{Ca}_{2.94}\text{Cu}_{1.93}\text{Al}_{1.97}\text{Mg}_{0.06}\text{Fe}^{2+}_{0.02}[\text{As}_{3.74}\text{S}_{0.16}\text{P}_{0.12}]\text{O}_{16.08}(\text{OH})_{3.87}\cdot2.05\text{H}_2\text{O}\).

**Occurrence**: In the oxidized portions of polymetallic sulfide-quartz veins.

**Association**: Arsenocrandallite, arsenogoyazite, conichalcite, olivenite, philipsbornite, azurite, malachite, carminite, beudantite, goethite, quartz, allophane.

**Distribution**: Christiana no. 132 mine, Kamareza, Laurion District, Attiki Prefecture (Attika), Greece.

**Name**: For the place of its first occurrence, the historically significant region, Attika, Greece.

**Type Material**: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow (catalog no. 3435/1).

**References**:  