Belendorffite \( \text{Cu}_7\text{Hg}_6 \)

Crystal Data: Hexagonal, pseudocubic. Point Group: 3m. Massive, a nugget.

Physical Properties: Hardness = n.d. VHN = 45–206, 125 average (25 g load). 
\( D(\text{meas.}) = 13.2(1) \quad D(\text{calc.}) = 13.15 \)


Cell Data: Space Group: \( \text{R}3m \) (by analogy to synthetic). \( a = 9.4024(4) \quad c = ?? \)
\( \alpha = 90.425^\circ ??\text{must convert to } a \text{ and } c??; \quad Z = 4R?? \)

X-ray Powder Pattern: Landsberg, Germany.
2.523 (100), 2.227 (100), 2.221 (100), 2.208 (100), 2.983 (80), 2.966 (80), 6.68 (60)

Chemistry:
\[
\begin{array}{c|cc}
\text{} & (1) & (2) \\
\hline
\text{Cu} & 25.61 & 26.98 \\
\text{Hg} & 74.06 & 73.02 \\
\text{Total} & 99.67 & 100.00 \\
\end{array}
\]

(1) Landsberg, Germany; by electron microprobe, average of ten analyses, probably contains some mercury; corresponds to \( \text{Cu}_{6.78}\text{Hg}_{0.22} \). (2) \( \text{Cu}_7\text{Hg}_6 \).

Polymorphism & Series: Dimorphous with kolymite.

Occurrence: In a mercury deposit.

Association: Mercury.

Distribution: From Landsberg, near Obermoschel, Rhineland-Palatinate, Germany [TL].

Name: In honor of Klaus Belendorff (1956– ), mineral collector of Münster, Germany, who first noted the mineral.

Type Material: Institute for Mineralogy, Ruhr University, Bochum, Germany.