

**Crystal Data:** Orthorhombic. *Point Group:*  $2/m\ 2/m\ 2/m$ . A crystalline incrustation.

**Physical Properties:** Hardness = n.d.  $D(\text{meas.}) = 1.08$   $D(\text{calc.}) = 1.10$

**Optical Properties:** Semitransparent. *Color:* White.

*Optical Class:* [Biaxial.]  $\alpha = \text{n.d.}$   $\beta = \text{n.d.}$   $\gamma = \text{n.d.}$   $2V(\text{meas.}) = \text{n.d.}$

**Cell Data:** *Space Group:*  $Pnna$  (studied on material recrystallized from benzene).

$a = 9.231(3)$   $b = 9.134(3)$   $c = 36.01(1)$   $Z = 8$

**X-ray Powder Pattern:** n.d.

**Chemistry:**

	(1)	(2)
C	89.84	90.42
H	10.15	9.58
Total	99.99	100.00

(1) Fognano, Italy. (2) C<sub>19</sub>H<sub>24</sub>; 1,1-dimethyl-7-isopropyl-1,2,3,4-tetrahydrophenanthrene, MP 59° C–60° C, BP 314° C–316° C.

**Occurrence:** In lignite, apparently derived from coniferous forests.

**Association:** n.d.

**Distribution:** From a coal mine at Fognano, near Montepulciano, Tuscany, Italy. A component of other brown coals and volcanic ashes, but noted in organic extractions.

**Name:** Honors Professor Vittorio Simonelli (1860–1929), Italian geologist, University of Bologna, Bologna, Italy, who discovered the mineral.

**Type Material:** n.d.

**References:** (1) Ciusa, R. and A. Galizzi (1921) Ricerche su alcuni costituenti delle lignite. *Gazzetta Chimica Italiana*, 51(1), 55–60 (in Italian). (2) (1922) *Amer. Mineral.*, 7, 178 (abs. ref. 1). (3) Foresti, E. and L. Riva di Sanseverino (1969) The X-ray crystal and molecular structure of an organic mineral: simonellite, C<sub>19</sub>H<sub>24</sub>. *Atti Rend. Accad. Lincei*, 47, 41–54.