Kratochvílite $C_{13}H_{10}$

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. [Crystalline massive.]

Physical Properties: Hardness = n.d. D(meas.) = 1.206 D(calc.) = 1.197 Fluoresces bright blue-violet under SW UV.

Optical Properties: Semitransparent. *Color:* [Colorless.]
Optical Class: Biaxial. $\alpha = 1.557$ $\beta = 1.725$ γ = n.d. 2V(meas.) = n.d.

Cell Data: *Space Group: Pnam.* $a = 8.50$ $b = 5.71$ $c = 19.00$ $Z = 4$

X-ray Powder Pattern: Synthetic $C_{13}H_{10}$. (ICDD 28-2011).
4.68 (100b), 3.38 (90), 9.39 (70), 4.21 (70b), 2.54 (60), 3.79 (50), 2.45 (50)

Chemistry: (1) Identification depends on the identity of X-ray powder pattern and physical properties with synthetic material (fluorene).

Occurrence: Formed as a result of burning pyritic shale (Kladno, Czech Republic).

Association: n.d.

Distribution: In the Czech Republic, in the Kladno district, at the Nejedlý I coal mine, Libušín. Material from other localities may be the natural analog of fluorene; but the original material perhaps was not.

Name: To honor Professor Josef Kratochvíl (1878–1958), Czech petrographer, Charles University, Prague, Czech Republic.

Type Material: Lost.

References: (1) Rost, R. (1937) The minerals of the burning coal heaps in the vicinity of Kladno. Rozpravy Ceská Ákademie, Kl II, 47(11), 6 pp. (2) (1938) Amer. Mineral., 23, 667 (abs. ref. 1). (3) Witzke, T. (1995) Kratochvilit, $C_{13}H_{10}$ oder $C_{14}H_{10}$? Mineralien-Welt, 6(4), 25 (in German). (4) Brown, G.M. and M.H. Bortner (1954) On the crystal and molecular structure of fluorene. Acta Cryst., 7, 139.