Acetamide  ${
m CH_3CONH_2}$ 

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**Crystal Data:** Hexagonal. *Point Group:* 3m. Crystals are prismatic, to 5 mm, with prominent  $\{11\overline{2}0\}$ ; as small stalactites and in granular aggregates.

**Physical Properties:** Fracture: Fine conchoidal. Hardness = 1-1.5 D(meas.) = 1.17 D(calc.) = 1.15 Soluble in  $H_2O$ , taste very bitter; volatilizes on exposure to air and sunlight.

**Optical Properties:** Transparent. *Color:* Colorless, gray if included with carbonaceous material. *Luster:* Vitreous to greasy.

Optical Class: Uniaxial (-).  $\omega = 1.495(2)$   $\epsilon = 1.460(2)$ 

Cell Data: Space Group: R3c (synthetic). a = 11.44(3) c = 13.50(3) Z = 18

**X-ray Powder Pattern:** Chervonograd, Ukraine. 5.7 (100), 3.54 (91), 2.86 (78), 3.32 (30), 2.17 (14), 3.98 (9), 3.83 (9)

**Chemistry:** (1) Chervonograd, Ukraine; yields a positive qualitative test for NH<sub>3</sub>; identification depends on close agreement of its X-ray powder pattern with that of synthetic acetamide.

Occurrence: In burning waste coal heaps, formed between 50 °C and 150 °C.

**Association:** Sal ammoniac (Chervonograd, Ukraine).

**Distribution:** From near Chervonograd, L'vov-Volyn' coal basin, Ukraine. At Shamokin, near Burnside, Northumberland Co., Pennsylvania, USA.

Name: For ACETic acid and AMIDE, for ammonia in its composition.

**Type Material:** Mining Museum, St. Petersburg Mining Institute, St. Petersburg, 1086/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 77109.

References: (1) Srebrodol'skii, B.I. (1975) Acetamide CH<sub>3</sub>CONH<sub>2</sub> – a new mineral. Zap. Vses. Mineral. Obshch., 104, 326–328 (in Russian). (2) (1976) Amer. Mineral., 61, 338 (abs. ref. 1). (3) (1976) Mineral. Abs., 27, 80 (abs. ref. 1). (4) Srebrodol'skii, B.I. (1986) Phases of mineral formation on spoil heaps of coal mines. Doklady Acad. Nauk SSSR, 290, 173–174 (in Russian). (5) Jeffrey, G.A., J.R. Ruble, R.K. McMullan, D.J. DeFrees, J.S. Binkley, and J.A. Pople (1980) Neutron diffraction at 23 K and ab initio molecular-orbital studies of the molecular structure of acetamide. Acta Cryst., 36, 2292–2299. (6) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union. Ocean Pictures, Moscow, 19.