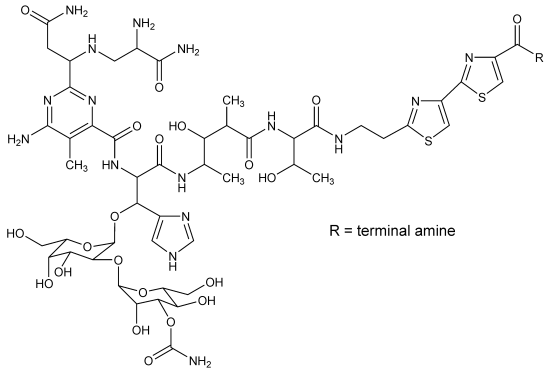
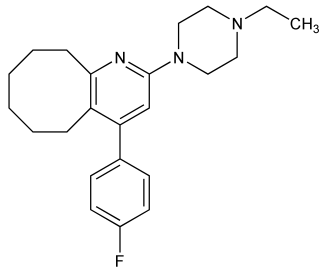
Sulfate. [9041-93-4] Blenoxane; Bleo. Cream-colored, amorphous powder. Very sol in water.



Bleomycin A_2. [11116-31-7] N^1-[3-(Dimethylsulfonio)propyl]-bleomycinamide. $C_{55}H_{84}N_{17}O_{21}S_3$; mol wt 1415.56.
THERAP CAT: Antineoplastic.

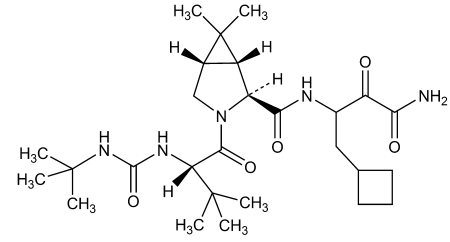
1320. Blonanserin. [132810-10-7] 2-(4-Ethyl-1-piperazinyl)-4-(4-fluorophenyl)-5,6,7,8,9,10-hexahydrocycloocta[*b*]pyridine; AD-5423; Lonasen. $C_{23}H_{30}FN_3$; mol wt 367.51. C 75.17%, H 8.23%, F 5.17%, N 11.43%. Dopamine D_2 and serotonin 5-HT_2 receptor antagonist. Prepn: K. Hino *et al*., **EP 385237**; *eidem*, **US 5021421** (1990, 1991 both to Dainippon). HPLC determn in plasma: M. Matsuda *et al*., *J. Pharm. Biomed. Anal.* **15**, 1449 (1997). X-ray crystal structure: K. Suzuki *et al*., *Anal. Sci.* **18**, 1289 (2002). *In vitro* receptor binding study and *in vivo* pharmacology in animals: M. Oka *et al*., *J. Pharmacol. Exp. Ther.* **264**, 158 (1993). Evaluation in mouse models of schizophrenia: T. Nagai *et al*., *NeuroReport* **14**, 269 (2003). Review of pharmacology and clinical experience in schizophrenia: E. D. Deeks, G. M. Keating, *CNS Drug Rev.* **24**, 65-84 (2010).



Crystals from acetonitrile, mp 123-124°.
THERAP CAT: Antipsychotic.

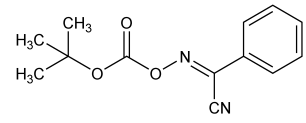
1321. Blue Cohosh. Caulophyllum; papoose root; squaw root. Perennial herb, *Caulophyllum thalictroides* Michx., *Berberidaceae*. Mature plant is a peculiar bluish green color and bears dark blue fruit. Traditionally used in Native American medicine as a uterine stimulant, emmenagogue, antispasmodic. Medicinal formulations are prepared from the dried rhizome and roots. *Habit.* Damp woods of eastern North America. *Constit.* Alkaloids, primarily baptifoline, methylcytisine, anagyrine, magnoflorine, *q.q.v.*; 2 glycosides, caulosaponin, cauloside D; citrullol, gum, resins, phosphoric acid, phytosterol. GC determn of alkaloids: J. M. Betz *et al*., *Phytochem. Anal.* **9**, 232 (1998). Tetratogenicity study of constituents: E. J. Kennelly *et al*., *J. Nat. Prod.* **62**, 1385 (1999). Brief review of clinical use in labor stimulation: B. L. McFarlin *et al*., *J. Nurse-Midwifery* **44**, 205-216 (1999). Reviews of medicinal uses: V. E. Tyler, *Herbs of Choice* (Pharmaceutical Products Press, New York, 1994) pp 47-48; J. Barnes *et al*., *Herbal Medicines* (Pharmaceutical Press, London, 2nd Ed., 2002) pp 147-148.
Note: Do not confuse with black cohosh, *q.v.*
THERAP CAT: Emmenogogue; oxytocic.

1322. Boceprevir. [394730-60-0] (1*R*,2*S*,5*S*)-*N*-[3-Amino-1-(cyclobutylmethyl)-2,3-dioxopropyl]-3-[(2*S*)-2-[[[(1,1-dimethylethyl)amino]carbonyl]amino]-3,3-dimethyl-1-oxobutyl]-6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2-carboxamide; SCH-503034; Victrelis. $C_{27}H_{45}N_5O_5$; mol wt 519.69. C 62.40%, H 8.73%, N 13.48%, O 15.39%. Inhibitor of hepatitis C virus serine protease NS3. Prepn: A. K. Saksena *et al*., **WO 0208244** (2002 to Schering; Corvas); *eidem*, **US 7012066** (2006 to Schering; Dendreon); S. Venkatraman *et al*., *J. Med. Chem.* **49**, 6074 (2006). Structure-based optimization: A. J. Prongay *et al*., *ibid.* **50**, 2310 (2007). *In vitro* antiviral activity: B. A. Malcolm *et al*., *Antimicrob. Agents Chemother.* **50**, 1013 (2006). LC/MS/MS determn in plasma: H. Farnik *et al*., *J. Chromatogr. B* **877**, 4001 (2009). Clinical evaluation in combination with PEG interferon α-2b vs hepatitis C virus: C. Sarrazin *et al*., *Gastroenterology* **132**, 1270 (2007). Review of development: F. G. Njoroge *et al*., *Acc. Chem. Res.* **41**, 50-59 (2008); and antiviral efficacy: K. Berman, P. Y. Kwo, *Clin. Liver Dis.* **13**, 429-439 (2009).



White to off-white powder. Freely sol in methanol, ethanol, isopropanol; slightly sol in water.
THERAP CAT: Antiviral.

1323. 2-(Boc-oxyimino)-2-phenylacetonitrile. [58632-95-4] Carbonic acid (cyanophenylmethylene)azanyl 1,1-dimethylethyl ester; 2-(*tert*-butoxycarbonyloxyimino)-2-phenylacetonitrile; α-[[[(1,1-dimethylethoxy)carbonyl]oxy]imino]benzeneacetonitrile; Boc-ON. $C_{13}H_{14}N_2O_3$; mol wt 246.27. C 63.40%, H 5.73%, N 11.38%, O 19.49%. Reagent used to introduce the *tert*-butoxycarbonyl (Boc) group to protect amines; also used to protect alcohols. Prepn and use in protection of amines: M. Itoh *et al*., *Tetrahedron Lett.* **16**, 4393 (1975); *eidem*, *Bull. Chem. Soc. Jpn.* **50**, 718 (1977). Additional protection application: X. Ariza *et al*., *Tetrahedron Lett.* **39**, 9101 (1998). *Review*: M. S. Wolfe, J. Aubé in *Encyclopedia of Reagents for Organic Synthesis* **2**, L. A. Paquette, Ed. (Wiley, New York, 1995) 838-839.



White needles or plates from methanol, mp 84-86°. *Irritant. Protect from light.* Very sol in ethyl acetate, diethyl ether, benzene, chloroform, dioxane, acetone; sol in methanol, 2-propanol, *tert*-butanol. Insol in water, petr ether. Store at −20°C. Slowly dec with evolution of CO_2
USE: Reagent in synthetic organic chemistry.

1324. Bohrium. [54037-14-8] Element 107; nielsbohrium; unnilseptium. Bh, Ns, Uns; at. no. 107. Group VIIB(7). No stable nuclides. Known isotopes: 261, 262, 262m, 266, 267. Prepn of α-emitting isotope $^{261}107$ by ^{209}Bi (^{54}Cr,2n); decay by spontaneous fission, $T_{½}$ 1-2 msec: Y. T. Organessian *et al*., *Nucl. Phys. A* **273**, 505 (1976); G. N. Flerov, *C.A.* **87**, 173830v (1977); A. S. Iljinov *et al*., *Report* **JINR-E-7-9686** (1976), *C.A.* **90**, 62354k (1979). Prepn of isotopes including $^{262}107$ ($T_{½}$ 102 ±26 msec, α-emitter) by ^{209}Bi (^{54}Cr,1n): G. Münzenberg, *et al*., *Z. Phys.* **A300**, 107 (1981); and revised $T_{½}$ 11.8 msec for $^{261}107$: *eidem*, *ibid.* **A333**, 163 (1989). Chemical characterization of 6 isotopes as bohrium oxychloride: R. Eichler *et al*., *Nature* **407**, 63 (2000). Review of history, prepn and properties: R. J. Silva in *The Chemistry of the Actinide Elements* **vol. 2**, J. J. Katz *et al*., Eds. (Chapman and Hall, New York, 1986)