

Compounds Amenable to Ionization Treatment

Category	Chemical	Formula
Nitrogen-containing compounds ¹	Nitric Acid	HNO ₃
	Nitric Oxide	NO
	Nitrogen Dioxide	NO ₂
Ammonia and Amines ¹	Ammonia	NH ₃
	n-Butylamine	CH ₃ (CH ₂)NH ₂
	Dibutylamine	(C ₄ H ₉) ₂ NH
	Diisopropylamine	(C ₃ H ₇) ₂ NH
	Dimethylamine	(CH ₃) ₂ NH
	Indole	C ₆ H ₄ (CH) ₂ NH
	Ethylamine	C ₂ H ₅ NH ₂
	Methylamine	CH ₃ NH ₂
	Pyridine	C ₅ H ₅ N
	Trimethylamine	(CH ₃) ₃ N
Sulfur-containing compounds ^{1,2}	Dimethyl Sulfide	(CH ₃) ₂ S
	Dimethyl Disulfide	(CH ₃) ₂ S ₂
	Diphenyl Sulfide	(C ₆ H ₅) ₂ S
	Hydrogen Sulfide	H ₂ S
	Sulfur Dioxide	SO ₂
Alcohols ^{1,3,5}	Sulfuric Acid	H ₂ SO ₄
	Ethyl Alcohol	C ₂ H ₅ OH
	Methyl Alcohol	CH ₃ OH
	Methyl Ethyl Ketone (MEK)	C ₃ H ₇ OH
	Acetaldehyde	CH ₃ CHO
Aldehydes ¹	Formaldehyde	CH ₂ O
	CFC-113	C ₂ Cl ₃ F ₃
	Chlorobenzene	C ₆ H ₅ Cl
	Dichloromethane	CH ₂ Cl ₂
	Halon FC 12-B	CClBrF ₂
	Hydrogen Chloride	HCl
	Tetrachloromethane	CCl ₄
	Trichloroethane, 1,1,1/2- (TCA)	C ₂ H ₃ Cl ₃
	Trichloroethylene (TCE)	C ₂ HCl ₃
	Carbonyls ¹	COS
Esters ¹	Phosgene	COCl ₂
	Butyl Acetate, n-	CH ₃ COOC ₄ H ₉
	Methyl Acetate	CH ₃ COOCH ₃
	Benzene	C ₆ H ₆
	Butane	C ₄ H ₁₀
Hydrocarbyls ^{1,3,5}	Cyclohexane	C ₆ H ₁₂
	Hexane, n-	C ₆ H ₁₄
	Hexene	C ₆ H ₁₂
	Methane	CH ₄
	Naphthalene	C ₁₀ H ₈
	Styrene	C ₈ H ₈
	Toluene	C ₇ H ₈
	Trimethylbenzene, 1,2,4-	C ₉ H ₁₂
	Amyl Mercaptan	CH ₃ (CH ₂) ₄ SH
	Benzyl Mercaptan	C ₆ H ₅ CH ₂ SH
Mercaptans ²	Ethyl Mercaptan	C ₂ H ₅ SH
	Methyl Mercaptan	CH ₃ SH
	Propyl Mercaptan	C ₃ H ₇ SH

1. Daniels, S. IEEE Transactions on Plasma Science, 2002, 30, 4, 1471-1481.

2. Case Study: Headworks Building at LPSCO Water Reclamation Facility (WRF), Goodyear, AZ

3. Chang, M.B., Chang, C-C. AIChE Journal, 1997, 43, 5, 1325-1330.

4. Jarosch, T.R. et. al, Final Report on Testing of Off-Gas Treatment Technologies for Abatement of Atmospheric Emissions of Chlorinated Volatile Organic Compounds, 1994, Prepared for US DOE.

5. Nunez, C.M. et. al, Air & Waste, 1993, 43, 2, 242-247