

- 195 Effects of Acute Industrial Poisoning with Carbon Monoxide. M. Navrátil and J. Weigner. Pracovní Lékařství 7, 268-273 (1955). Bohemian.

Of 59 persons recovered from carbon monoxide poisoning 32 showed positive findings: extra-pyramidal symptomatology, vegetative stigmatization, lesions of the pyramidal system, and cerebellar symptoms. -- Chem. Absts.

- 196 A Roentgenologic Study of a Human Population Exposed to High-Fluoride Domestic Water: A 10-Year Study. N. C. Leons, C. A. Stevenson, T. F. Hildish, and M. C. Soeman. Am. J. Roentgenol. 74, 874-885 (Nov. 1955).

Roentgenograms were made and repeated with matching views ten years later in 237 persons, 116 of whom were residing in a high-fluoride area in Texas with 8 ppm of fluoride in drinking water, and the other 121 in a control area where the water contained 0.4 ppm of fluoride. Bone changes are described in detail. The data suggest that excessive fluorides may produce roentgenographic evidence of bone changes, but the observable changes occur in only 10 to 15% of those exposed. They are slight, often difficult to recognize, and in most cases equivocal in degree. The only other physical findings are dental mottling in persons who resided in the high-fluoride area during the tooth formative period. These bone changes cannot be definitely ascribed to excessive fluorides, even though the fluoride content of the bones may be six times that of normal bone. The increased fluoride may on occasion have a beneficial effect in the adult bone.

- 197 Nitrogen Oxide Impurities in Ozone. B. E. Saltzman, D. H. Byers, and Frances L. Hyslop. Ind. Eng. Chem. 48, 115-118 (Jan. 1956).

The extent of production of nitrogen oxides by an ozonizer with a phenol-formaldehyde resin dielectric was studied. Under normal operating conditions the nitrogen oxides produced were less than 5% of the ozone concentration; under the most adverse conditions of air flow and voltage the value was 8.5%. This result agrees with those of previous studies. A study of the kinetic and equilibrium data in the literature showed that of all the oxides of nitrogen and related compounds, only nitrogen dioxide, nitrogen pentoxide, and nitric acid vapor required consideration as impurities in ozone. The nitrogen dioxide was determined to be only a small portion of the total impurity. When ozone was present in large excess, the oxidation of nitrogen dioxide was nearly complete. Some data indicated that nitrogen pentoxide was hydrated with extreme rapidity to nitric acid vapor, which is thermodynamically stable. The chemical studies were valuable for interpreting the toxicologic results, which indicate that the nitrogen dioxide impurities in ozone as ordinarily produced are not an important factor in the toxicity of ozone. These results also have a bearing on the toxicity of ozone as an atmospheric pollutant. -- Cond. from authors' conclusions

- 198 Effect of Cadmium on Blood Pressure and Respiration and the Use of Dimercaptol (BAL) as Antidote. T. Dalhamn and L. Friberg. Acta Pharmacol. et Toxicol. 10, 199-203 (1954).

In cats and rabbits the intravenous injection of 0.3-0.5 mg. per kg. of cadmium (as sulfate) caused a rapid, moderate fall in blood pressure but had no consistent effect on respiration. Previous intramuscular injection of BAL or intravenous injection of BAL-glucoside prevented the effect. -- Chem. Absts.

- 199 Experiments Bearing upon the Idea that Gastric Ulcer is Frequent among Chromium Workers. M. Moesinger and H. Fiorentini. Arch. maladies profess. 16, 378-380 (1955). French.

A number of references have appeared in literature relating to the occurrence of gastric ulcer in persons working with chromium compounds. A series of experiments is described in which various animals were given neutral potassium chromate, orally, intravenously, subcutaneously, intraperitoneally, percutaneously, or by inhalation of an aerosol. Administration continued over varying periods up to one year. In the 66 animals no case of a true gastric ulcer was seen, although some cases of gastritis, esophagitis, and interstitial enteritis were found. Chronic ulcers did not occur, even by ingestion of neutral potassium chromate over long periods. The suggestion is therefore advanced that other factors must be present when gastro-duodenal ulcers have been observed among chromium workers. -- Cond. from Bull. Hyg.