

[72] Inventors **Howard H. Anderson,**
Covina;
Rudolph H. Moyer, West Covina;
Donald J. Sibbett, Cucamonga;
David C. Sutherland, El Monte, all of Calif.

[21] Appl. No. **32,918**

[22] Filed **Apr. 29, 1970**

[45] Patented **July 20, 1971**

[73] Assignee **Geomet, Incorporated**
Rockville, Md.

3,068,402 12/1962 Redhead 73/23 X
 3,507,622 4/1970 Tammelin et al. 73/23 X

OTHER REFERENCES

Publication: **ANALYTICAL CHEMISTRY**, Abstract QD1A51 Co. #65 2 pg. 1373 1966. "Argon Detector for Determination of Mercury Gases," (Copy in 73/421 5) by Krestornikov et al.

Primary Examiner - Louis R. Prince
Assistant Examiner - Daniel M. Yasich
Attorney - David H. Semmes

[54] **MERCURY AIR SAMPLER FOR GEOLOGICAL STUDIES**
 7 Claims, 6 Drawing Figs.

[52] U.S. Cl. 73/421.5 R
 [51] Int. Cl. G01n 1/22
 [50] Field of Search 73/421.5,
 422, 23; 55/387

[56] **References Cited**
UNITED STATES PATENTS
 2,263,335 11/1941 Hemz 73/23

ABSTRACT: Apparatus and system for detecting and sampling mercury vapor in the atmosphere especially adapted for geological surveying or studies utilizing sensitized absorption of the vapor on surfaces of noble metal wire grids. The wire grids operate to concentrate encountered low levels of vapors. Release of mercury from the grid into a photometer for quantitation is achieved by direct passage of electrical current through the grid wire. The grids are designed to allow for ohmic heating of the absorbent wire to render possible a portable monitoring device. The apparatus is operable from vehicle batteries or the like or from alternator power

