

SHIMADZU APPLICATION NEWS

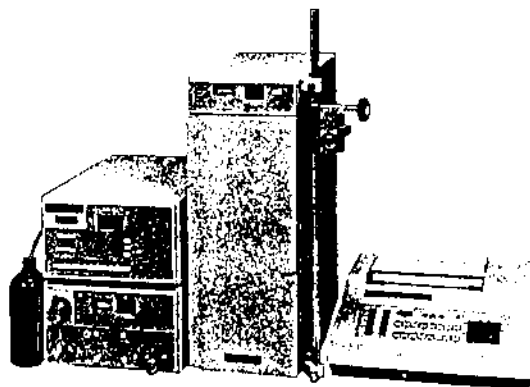
HIGH PERFORMANCE LIQUID CHROMATOGRAPHY 136

Analysis of Anion in Environmental Water

— Application of LC-6A Inorganic Ion Analysis System —

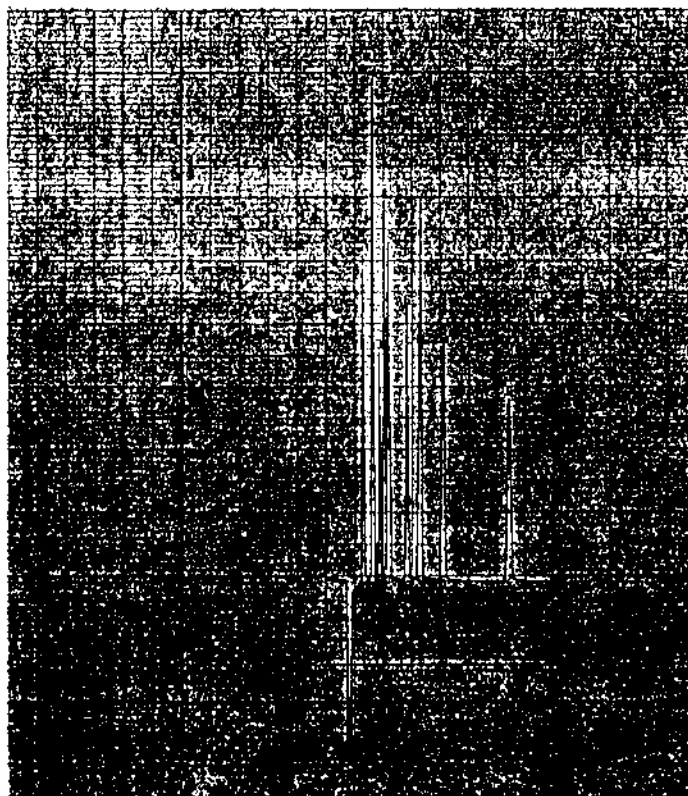
High performance liquid chromatographs have come to be applied more and more for the analysis of inorganic ions. With respect to the instruments, not only dedicated ones for the specific analysis but also ordinary liquid chromatographs are often used in recent years.

Shimadzu LC-6A High Performance Liquid Chromatograph for Inorganic Ion Analysis is a new system which consists of a reversed phase ion pair chromatograph and a UV spectro-photometric detector. When combined with a general-purpose liquid chromatograph which is being used in your laboratory, this system enables you to conduct inorganic ion analysis easily. Shown below are examples of analysis of environmental water by the LC-6A inorganic ion analysis system.



■ Analysis of 9-component Standard Anions

Fig. 1 shows an example of the separation of 9-component standard anions, showing high separability obtained in a short time.



■ Components of the Peaks

1. IO_3^-
2. Cl^-
3. BrO_3^-
4. NO_2^-
5. Br^-
6. NO_3^-
7. SO_4^{2-}
8. ClO_3^-
9. I^-

Fig. 1

■ Analysis of Three-component Standard

Fig. 2 shows an example of a standard sample used for quantitation of chlorine ion, nitric acid ion, and sulphuric acid ion (10 ppm each) contained in environmental water.

■ Analysis of City Water

Fig. 3 shows an analysis of tap water in a city area.

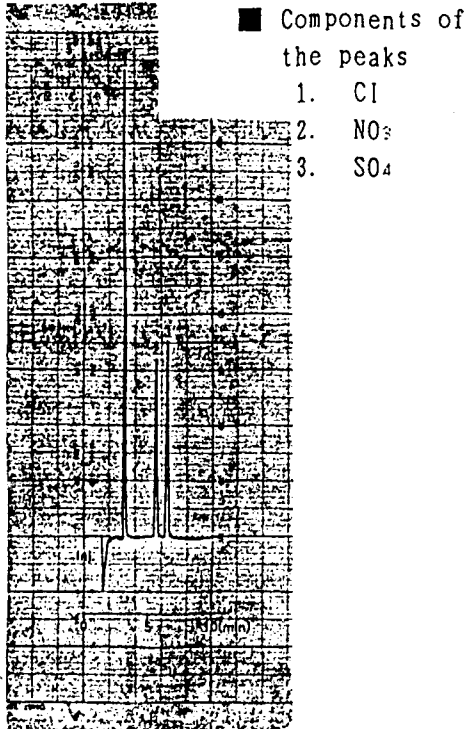


Fig. 2

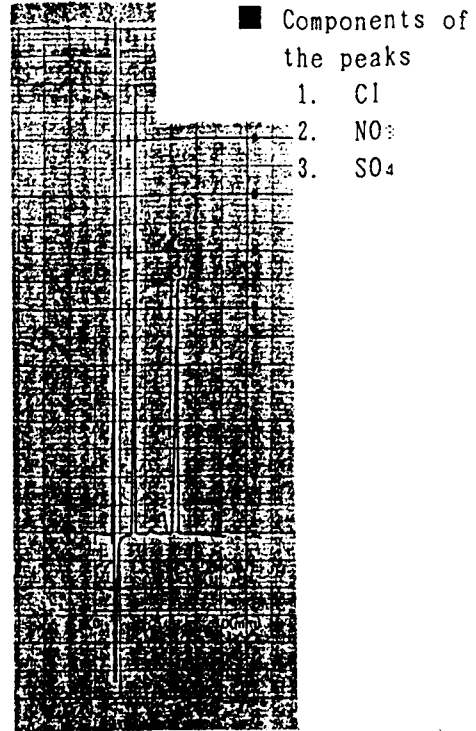


Fig. 3

■ Analysis of Rain Water

Fig. 4 shows an example of analysis of rain water in a city area.

Fig. 5 shows an analysis of rain water in an area of factories.

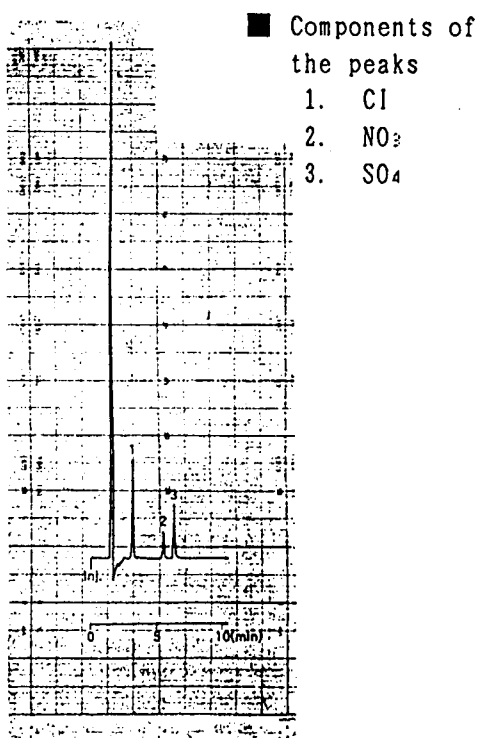


Fig. 4

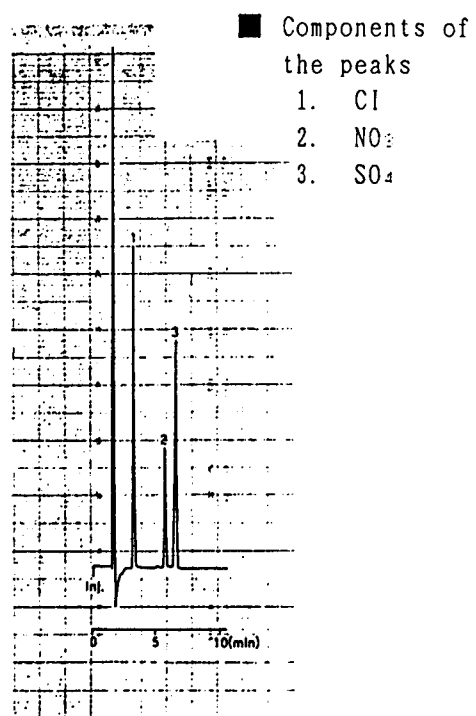


Fig. 5



SHIMADZU CORPORATION

INTERNATIONAL MARKETING DIVISION

3, Kanda-Nishikicho 1-chome, Chiyoda-ku, Tokyo 101, Japan

Phone: (03)3219-5641

FAX : (03)3219-5710

Cable Add.: SHIMADZU TOKYO

Overseas Telex No.: 0232-3291 (SHMDT J)

3294-03200-400TD