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Characterization of Solids in the Three Mile Island Unit 2 Reactor Defueling Water. Addendum

D. O. Campbell

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ORNL/TM-10362/A1

Chemical Technology Division

CHARACTERIZATION OF SOLIDS IN THE THREE MILE ISLAND UNIT 2 REACTOR DEFUELING WATER. ADDENDUM

D. O. Campbell

Date Published - March 1988

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FOREWORD

Shortly after ORNL/TM-10362 was issued, it was discovered that a series of 31 figures, originally intended for inclusion in Appendix F, "PARTICLE CHARACTERIZATION DATA FOR SAMPLE W3 (TURBIDITY = ~4 NTU): FILTRATION TEST 4," had been inadvertently omitted. These figures, which consist of scanning electron microscope (SEM) photographs and energy-dispersive X-ray fluorescence scans, provide significant information about the results obtained in the tests performed with water sample W3.

Therefore, an Addendum is being issued which includes these figures (Figs. F.17 through F.47). Details of and comments on the SEM photographs may be found on pp. 47 and 48 in ORNL/TM-10362. Results from tests using 0.8-, 0.6-, 0.4-, and 0.1-μm filters are summarized in Figs. F.17-F.25, F.26-F.31, F.32-F.43, and F.44-F.47, respectively. For the convenience of the reader, the page numbering and figure designations in this Addendum are continued in a sequential manner from that used in Appendix F of the base document, ORNL/TM-10362.

Appendix F. PARTICLE CHARACTERIZATION DATA FOR SAMPLE W3 (TURBIDITY = ~4 NTU): FILTRATION TEST 4

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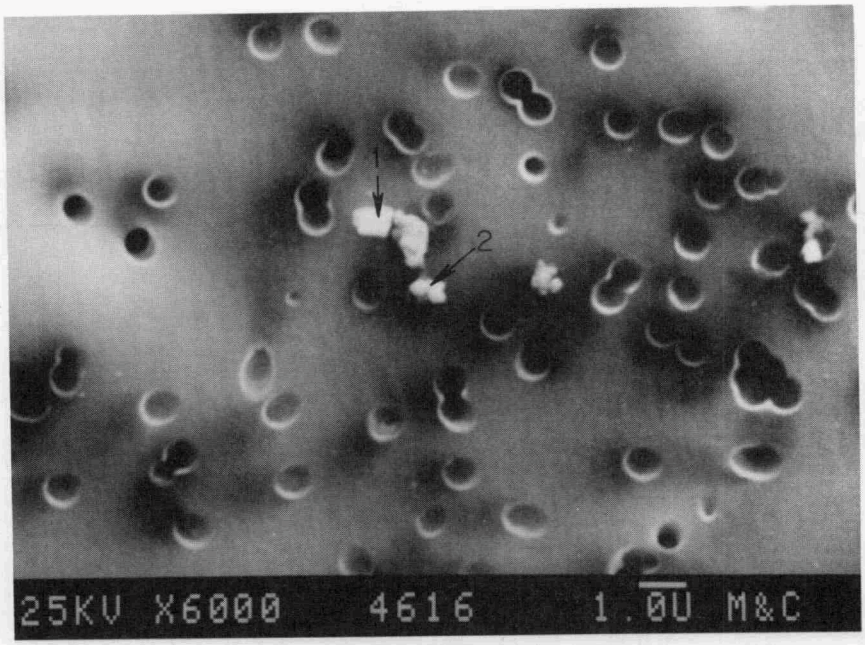

Fig. F.17. Nuclepore filter test 4 with 4-NTU water sample W3, 0.8-μm filter.

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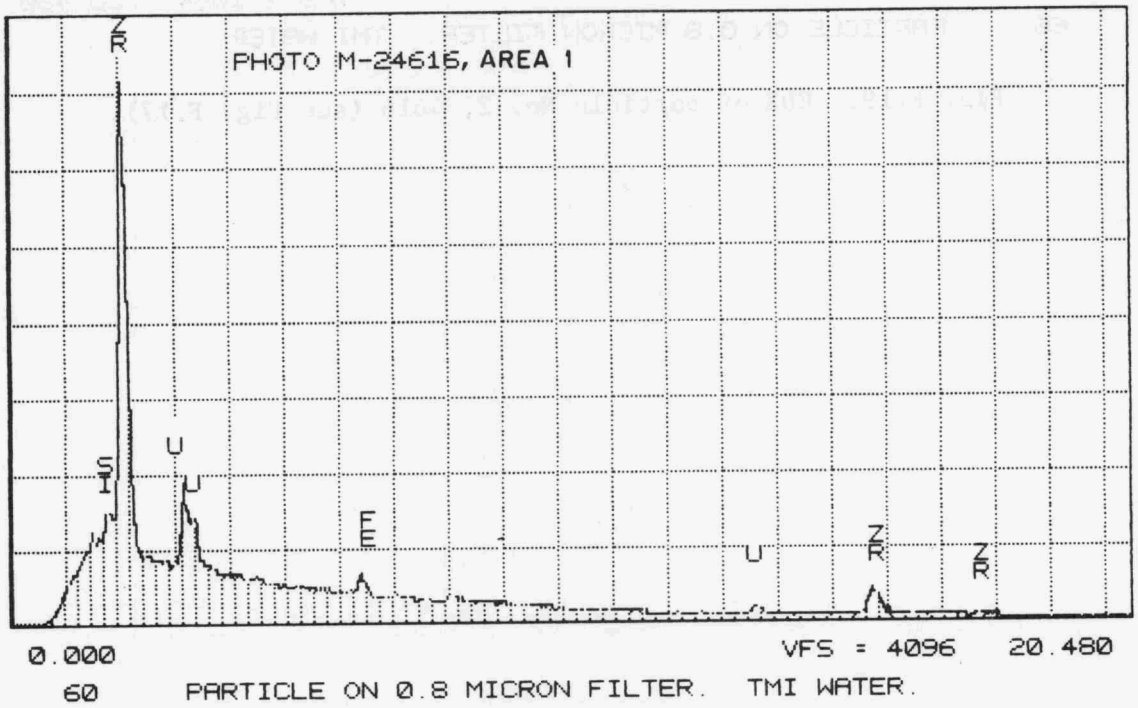

Fig. F.18. EDX of particle No. 1, 4616 (see Fig. F.17).

ORNL-DWG 88-6607

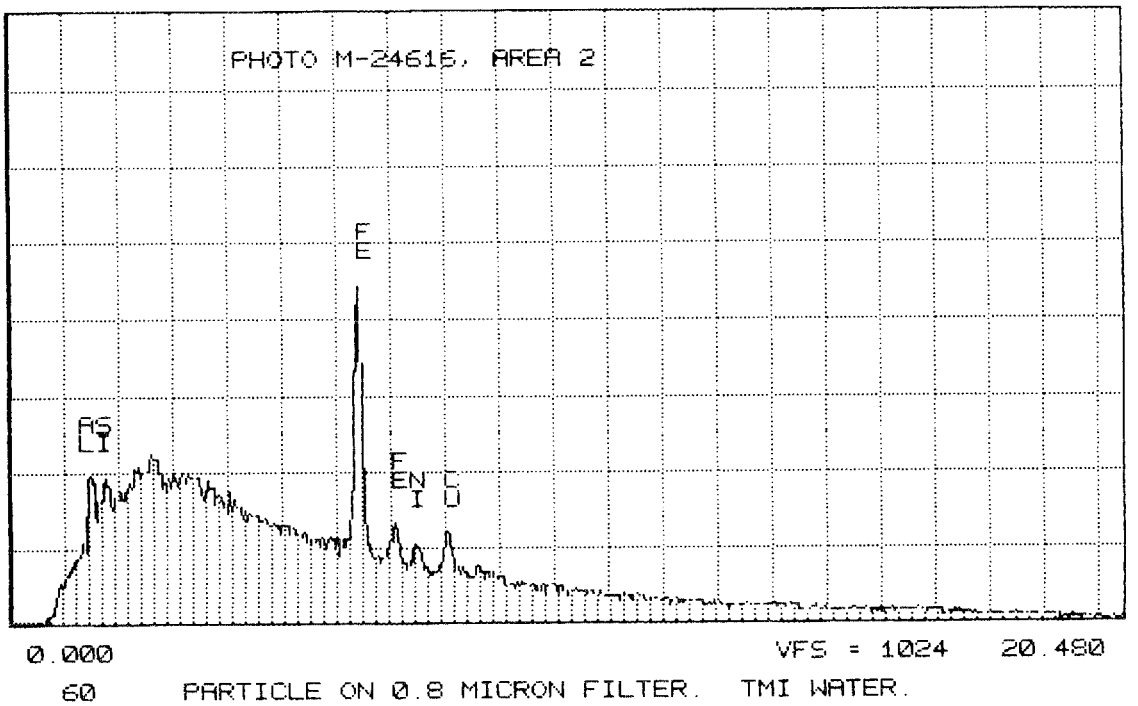

Fig. F.19. EDX of particle No. 2, 4616 (see Fig. F.17).

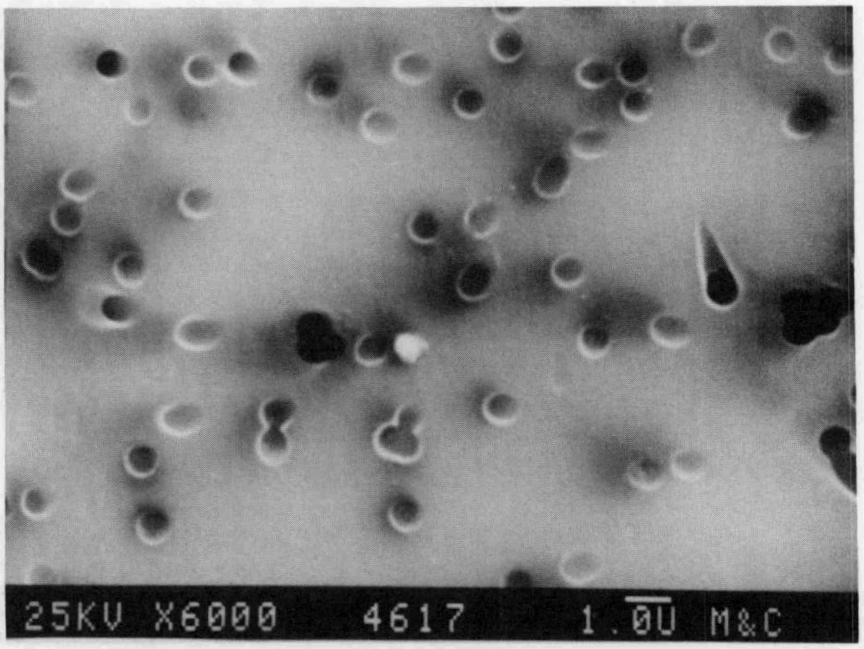

Fig. F.20. Nuclepore filter test 4 with 4-NTU water sample W3, 0.8-μm filter.

ORNL-DWG 88-6608

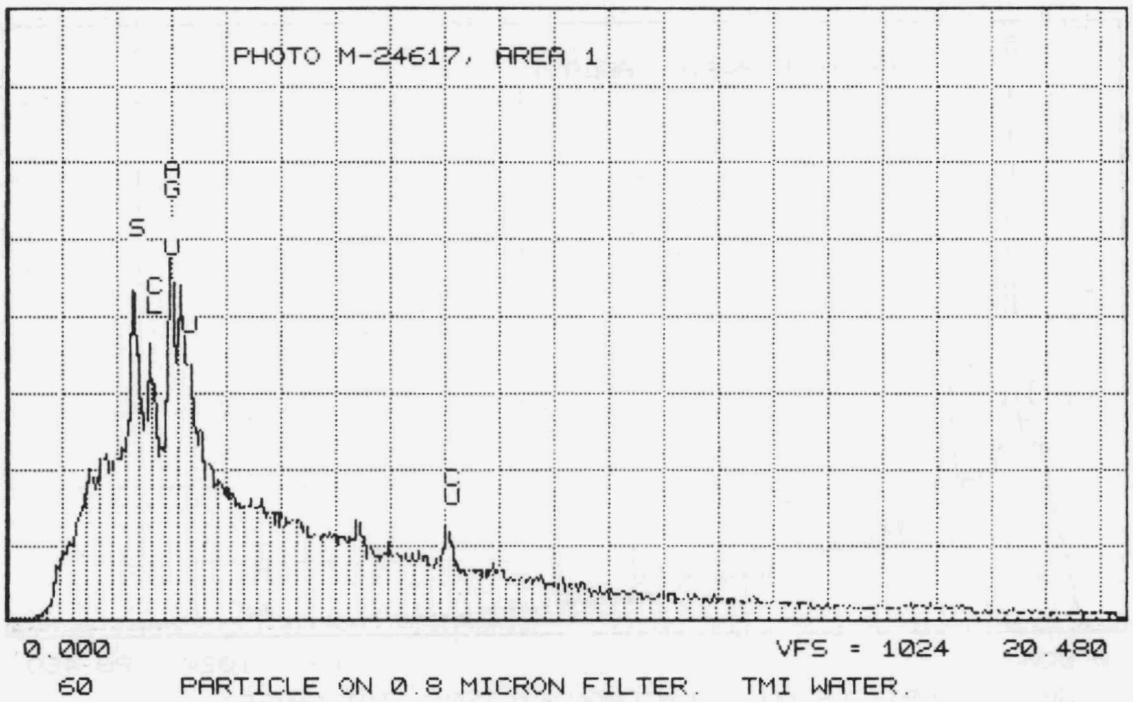

Fig. F.21. EDX of particle near center, 4617 (see Fig. F.20).

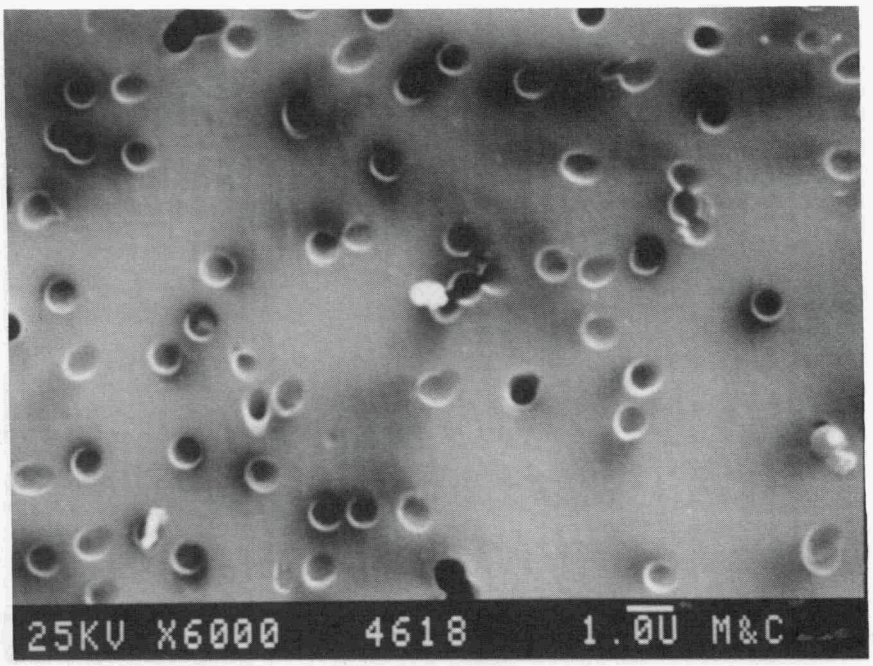

Fig. F.22. Nuclepore filter test 4 with 4-NTU water sample W3, 0.8-μm filter.

ORNL-DWG 88-6609

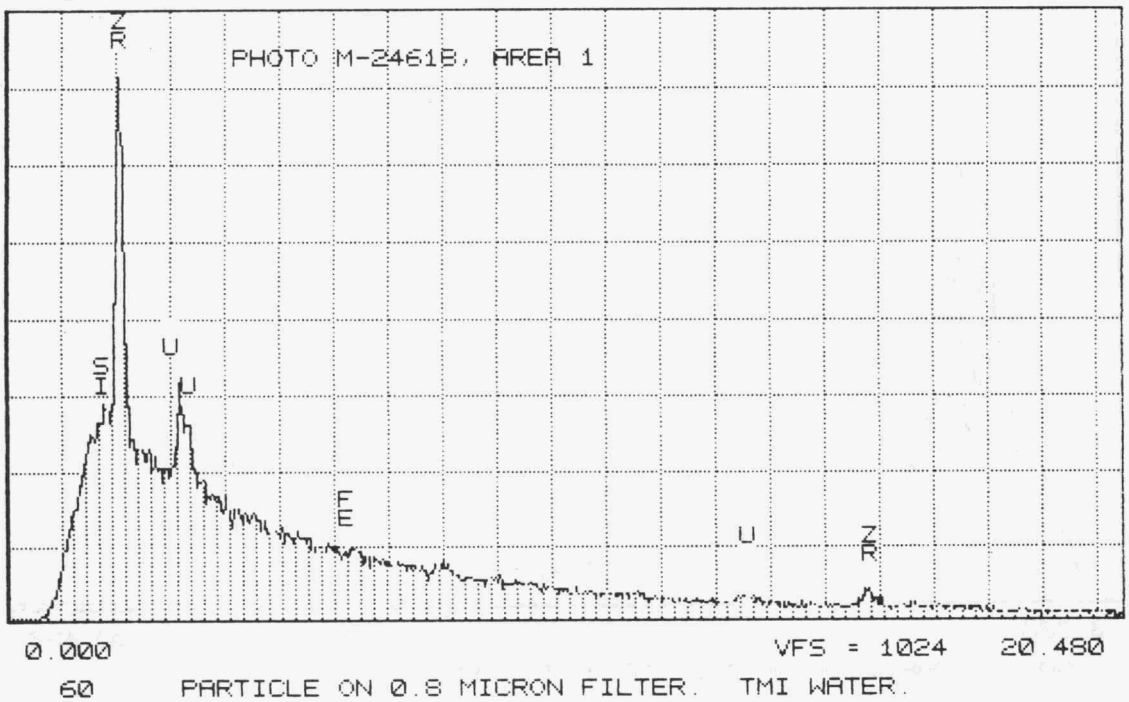

Fig. F.23. EDX of particle near center, 4618 (see Fig. F.22).

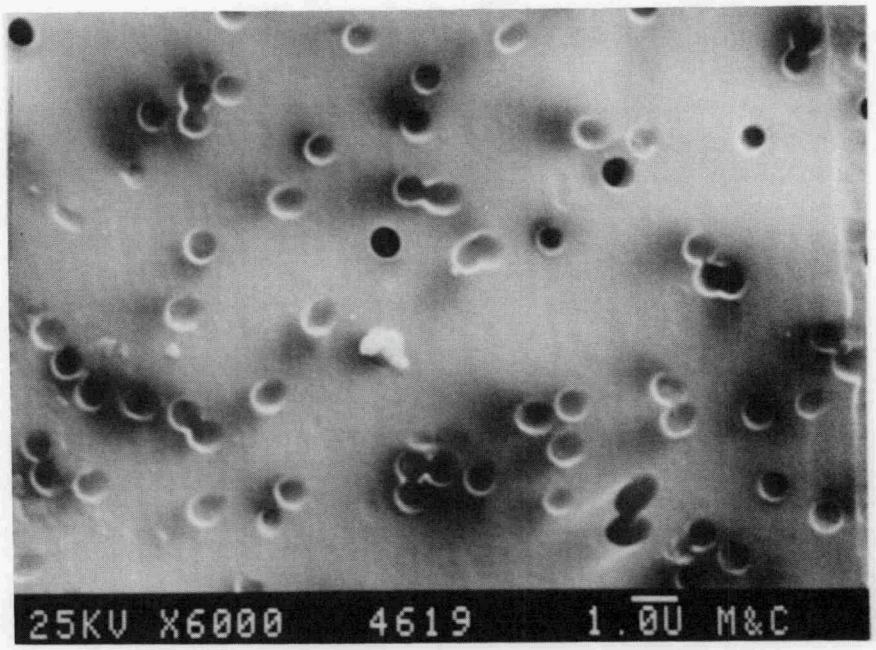

Fig. F.24. Nuclepore filter test 4 with 4-NTU water sample W3, 0.8-μm filter.

ORNL-DWG 88-6610

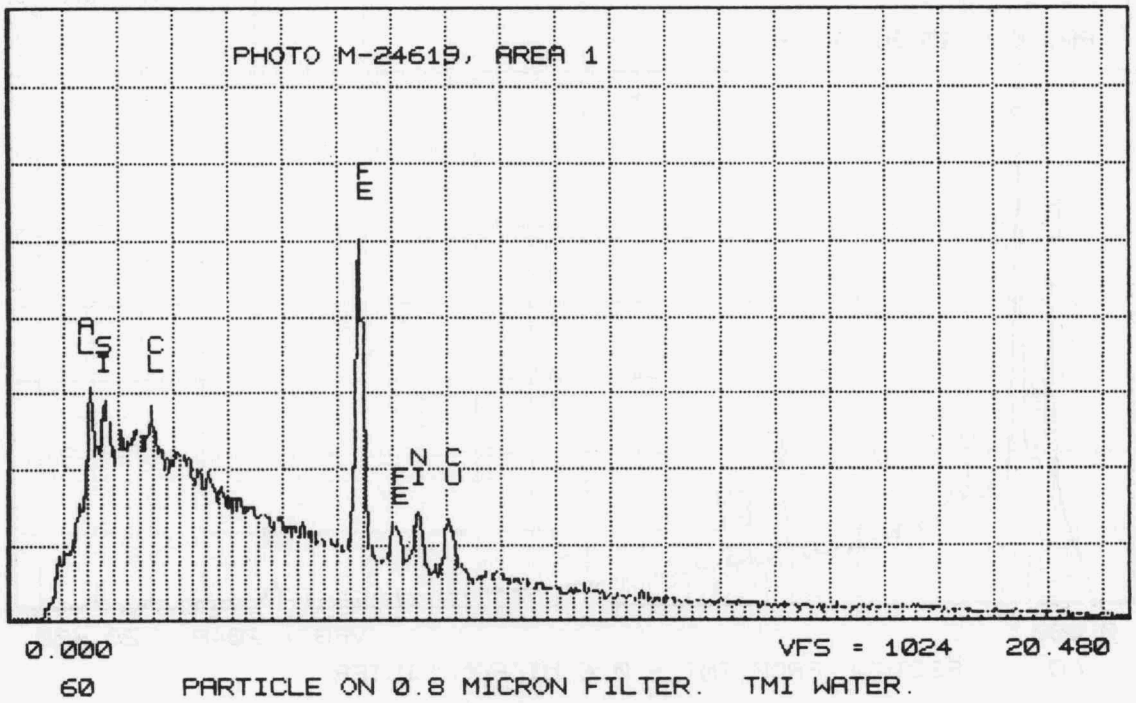

Fig. F.25. EDX of particle near center, 4619 (see Fig. F.24).

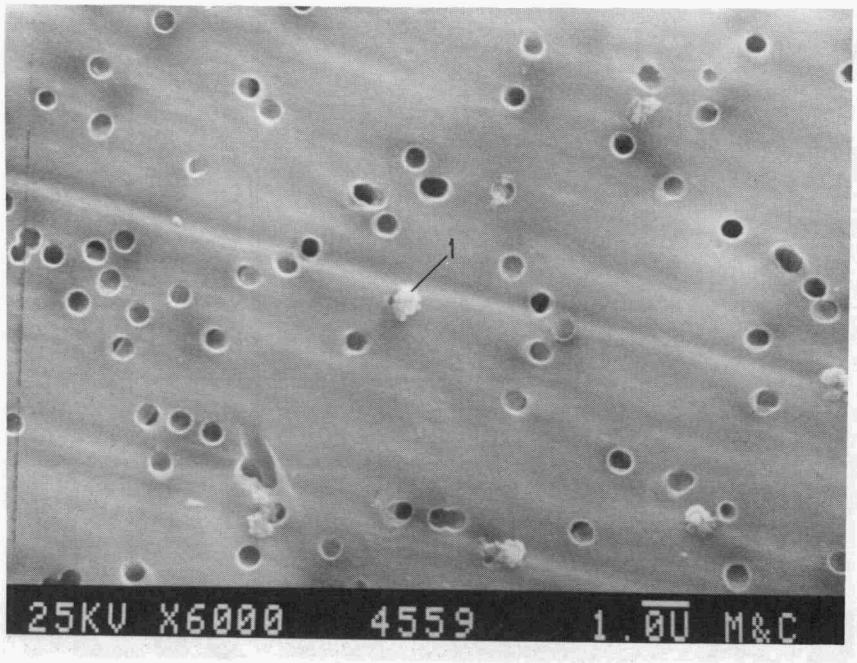

Fig. F.26. Nuclepore filter test 4 with 4-NTU water sample W3, 0.6-μm filter.

ORNL-DWG 88-6611

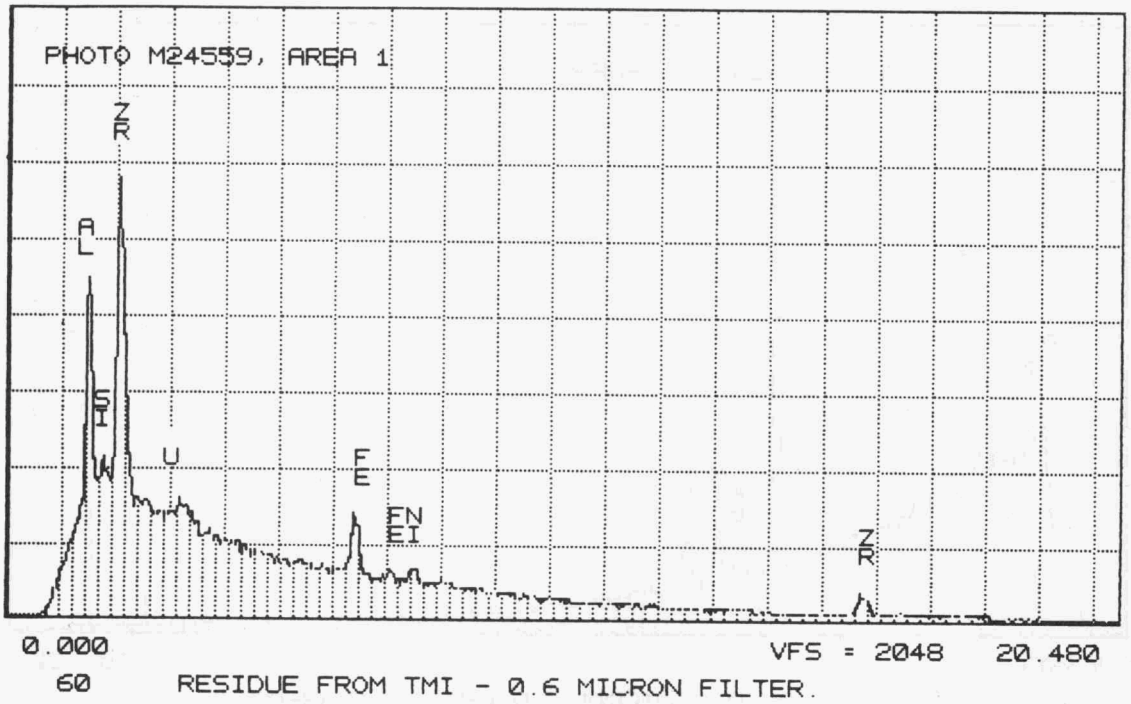

Fig. F.27. EDX of particle No. 1, 4559 (see Fig. F.26).

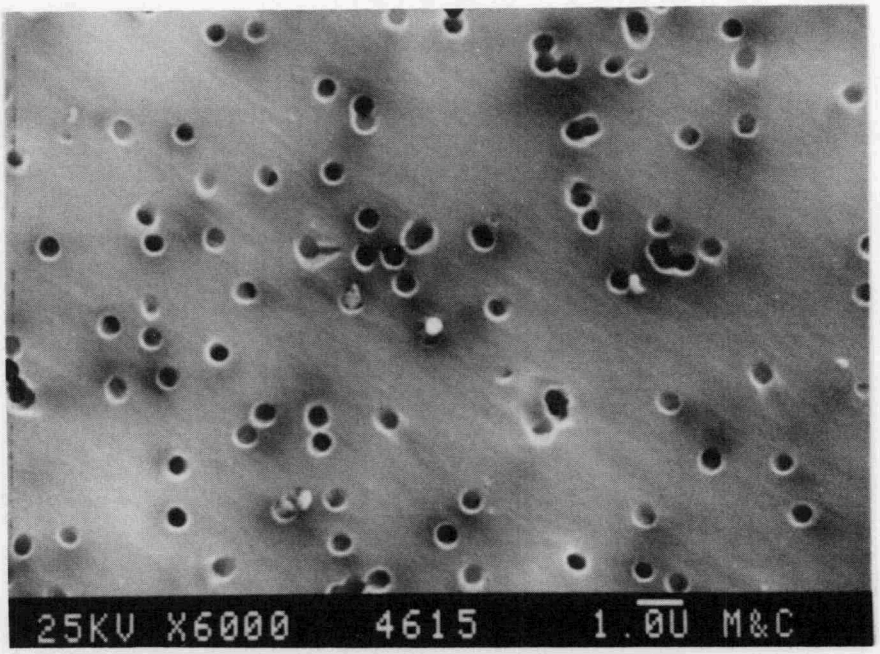

Fig. F.28. Nuclepore filter test 4 with 4-NTU water sample W3, 0.6-μm filter.

ORNL-DWG 88-6612

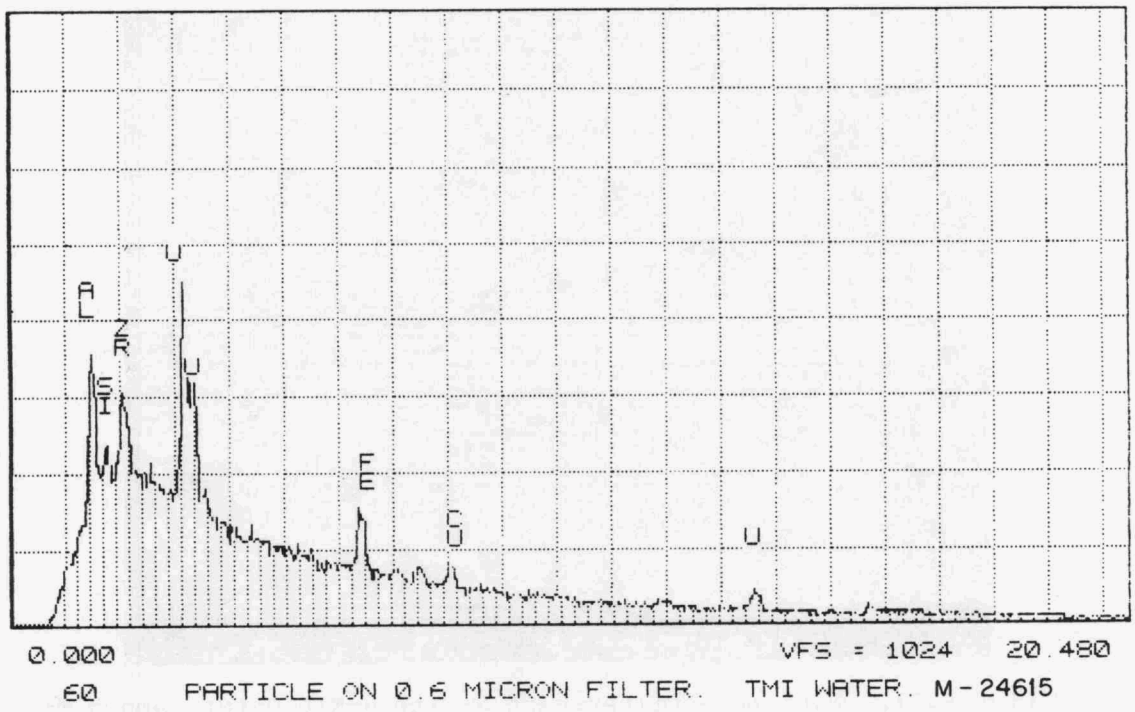

Fig. F.29. EDX of bright particle near center, 4615 (see Fig. F.28).

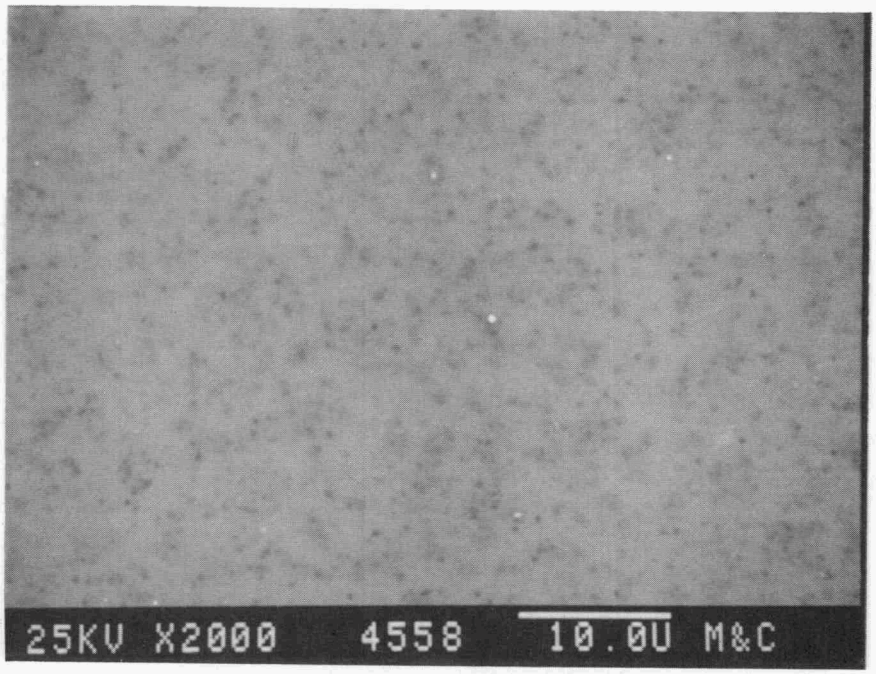

Fig. F.30. Nuclepore filter test 4 with 4-NTU water sample W3, 0.6-μm filter.

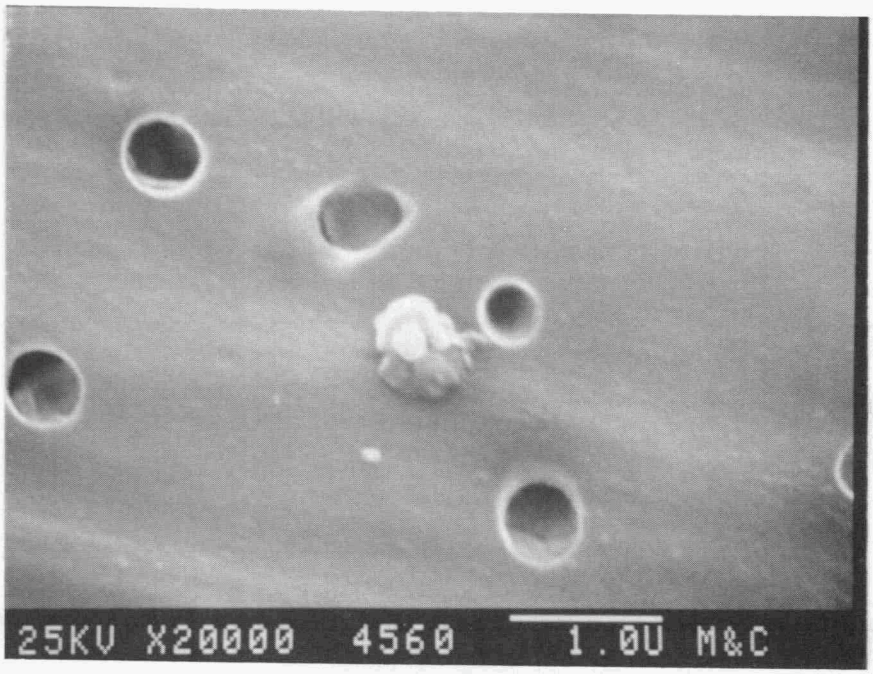

Fig. F.31. Nuclepore filter test 4 with 4-NTU water sample W3, 0.6-μm filter.

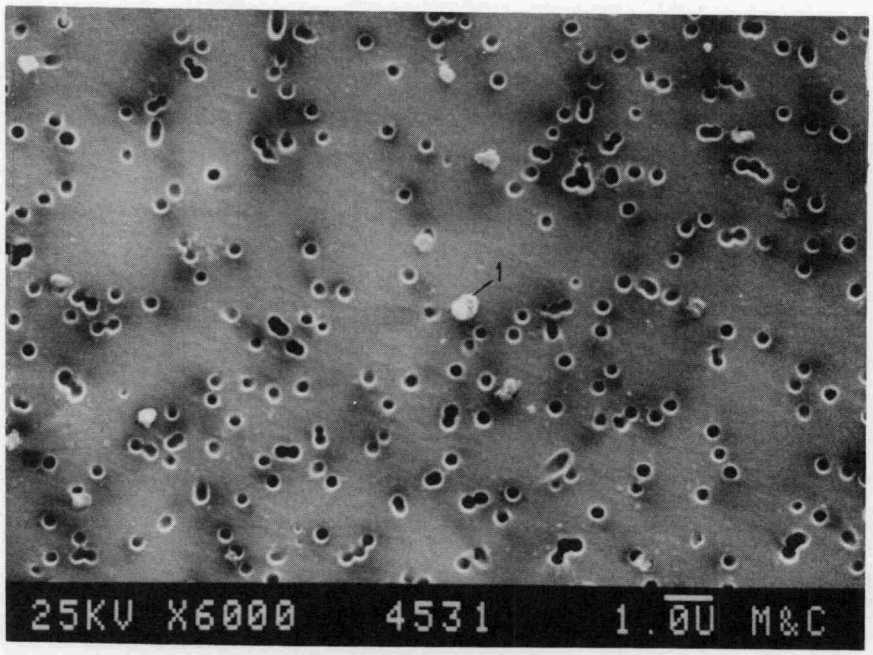

Fig. F.32. Nuclepore filter test 4 with 4-NTU water sample W3, 0.4-μm filter.

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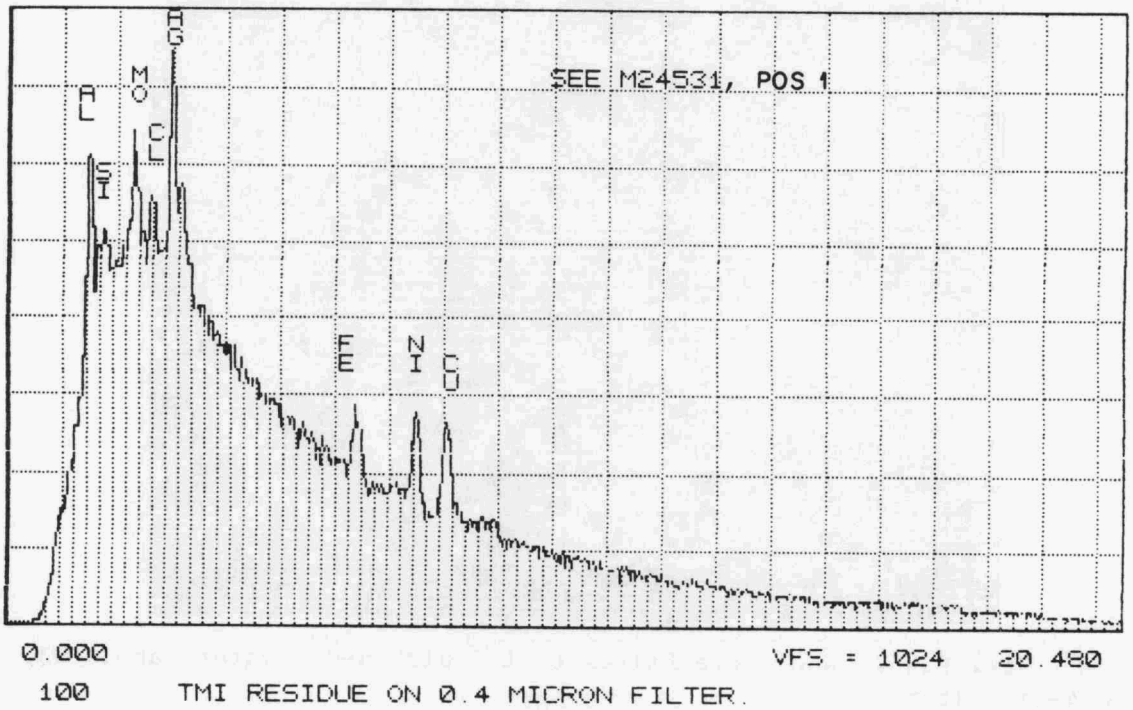

Fig. F.33. EDX of particle No. 1, 4531 (see Fig. F.32).

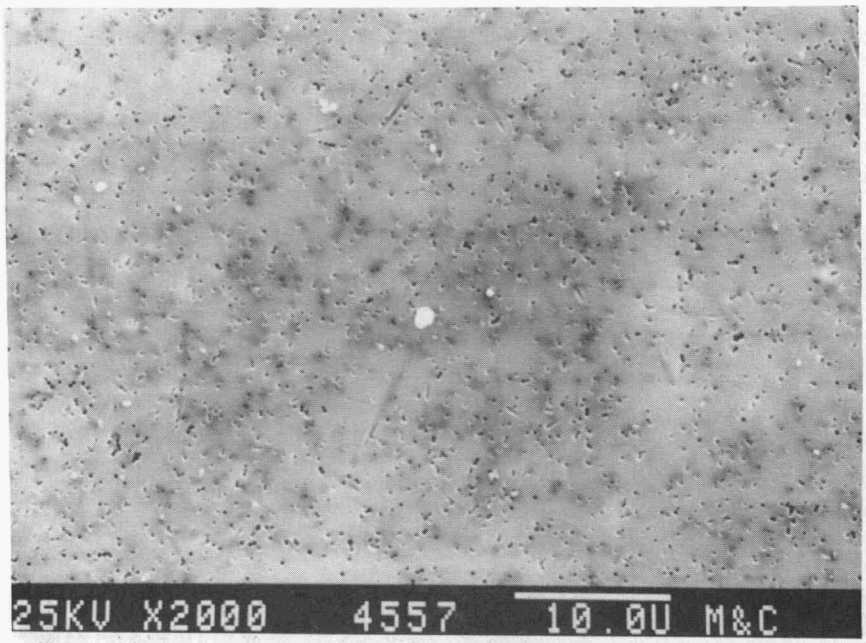

Fig. F.34. Nuclepore filter test 4 with 4-NTU water sample W3, 0.4-μm filter.

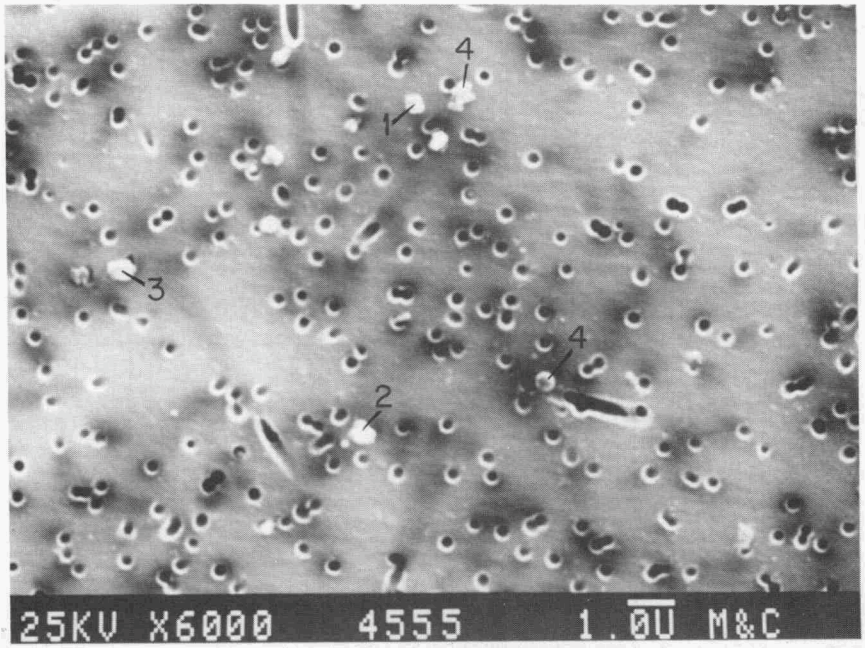

Fig. F.35. Nuclepore filter test 4 with 4-NTU water sample W3, 0.4-μm filter.

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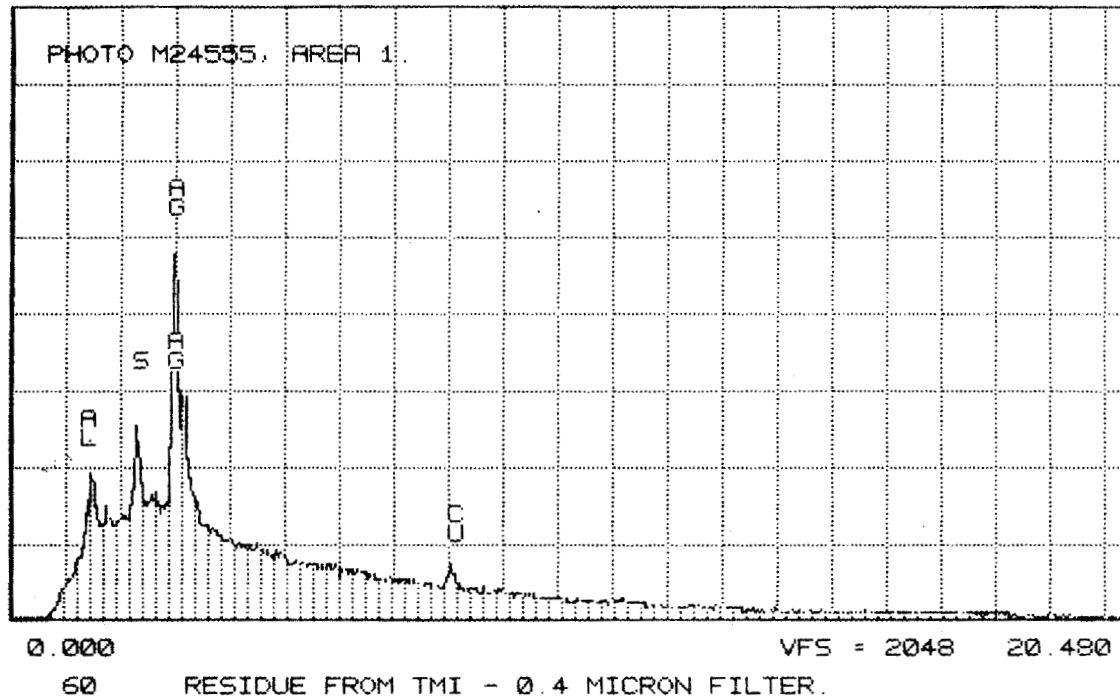

Fig. F.36. EDX of particle No. 1, 4555 (see Fig. F.35).

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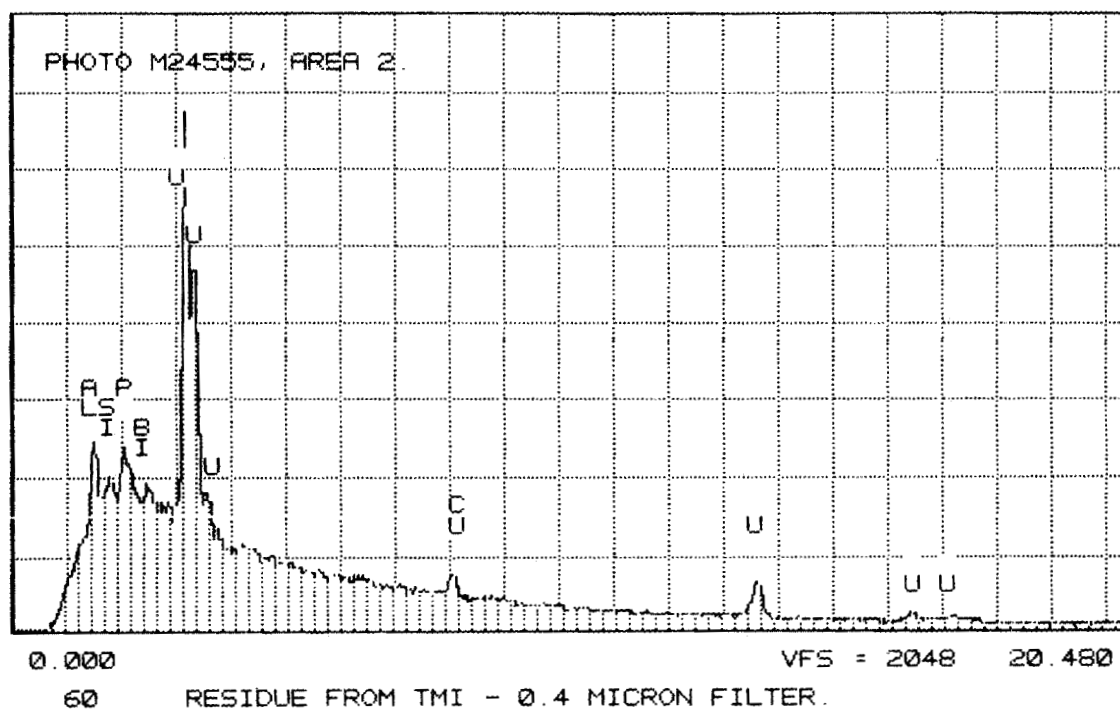

Fig. F.37. EDX of particle No. 2, 4555 (see Fig. F.35).

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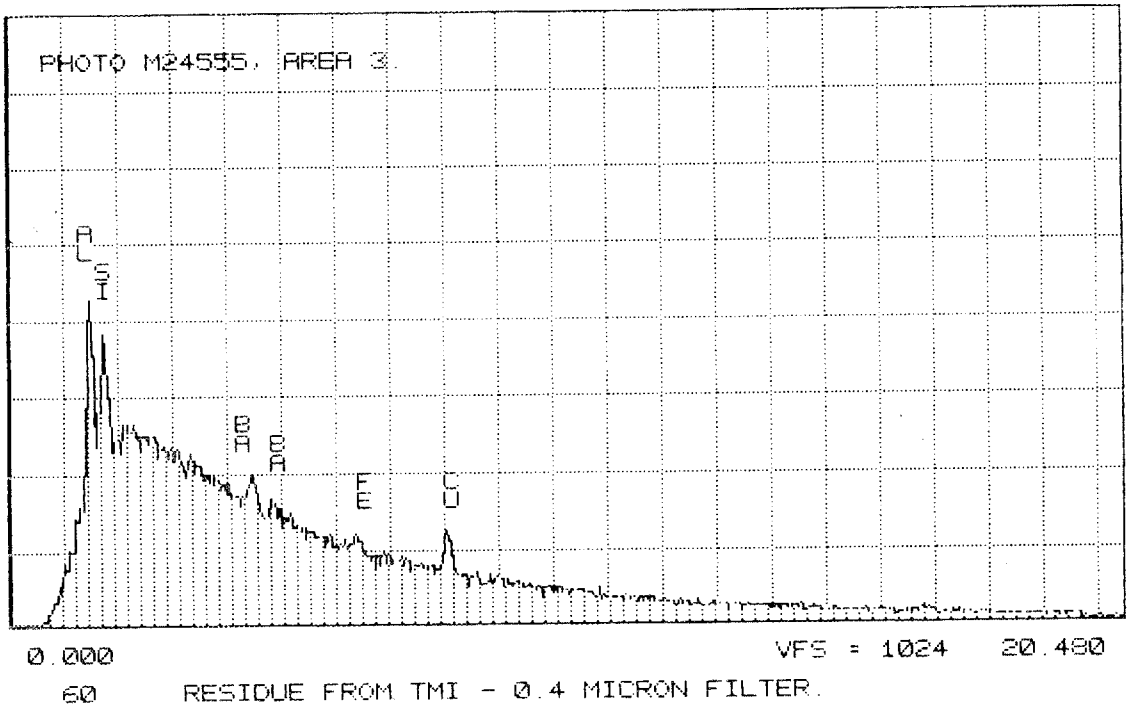

Fig. F.38. EDX of particle No. 3, 4555 (see Fig. F.35).

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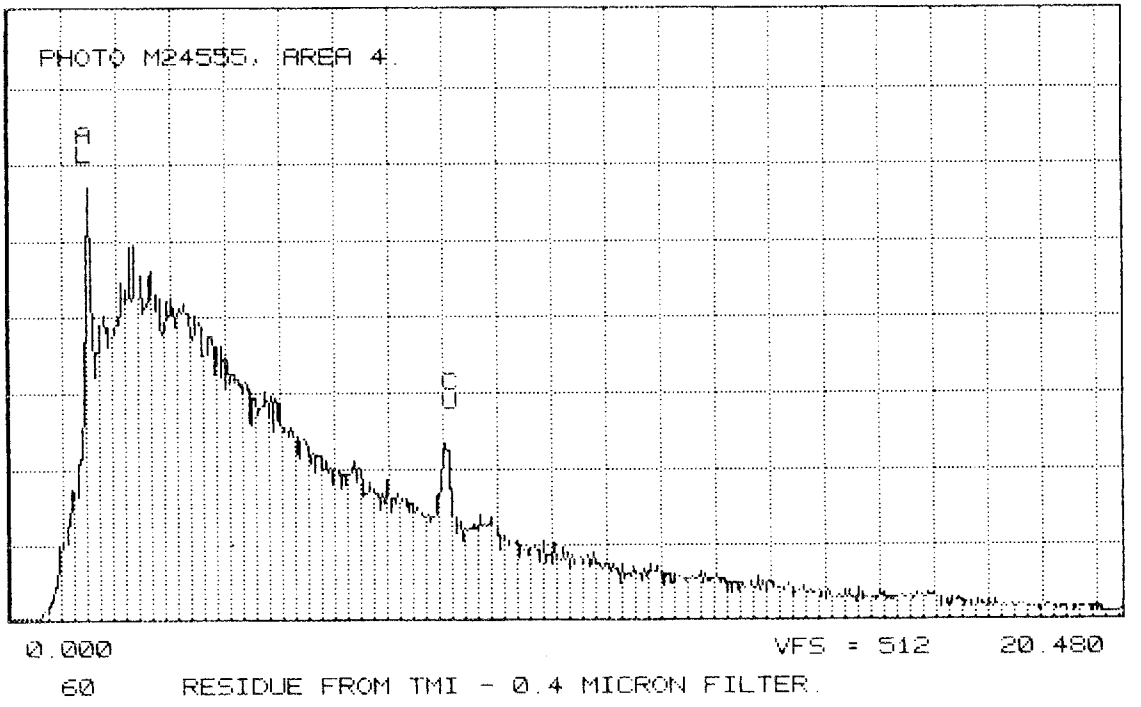

Fig. F.39. EDX of particle No. 4, 4555 (see Fig. F.35).

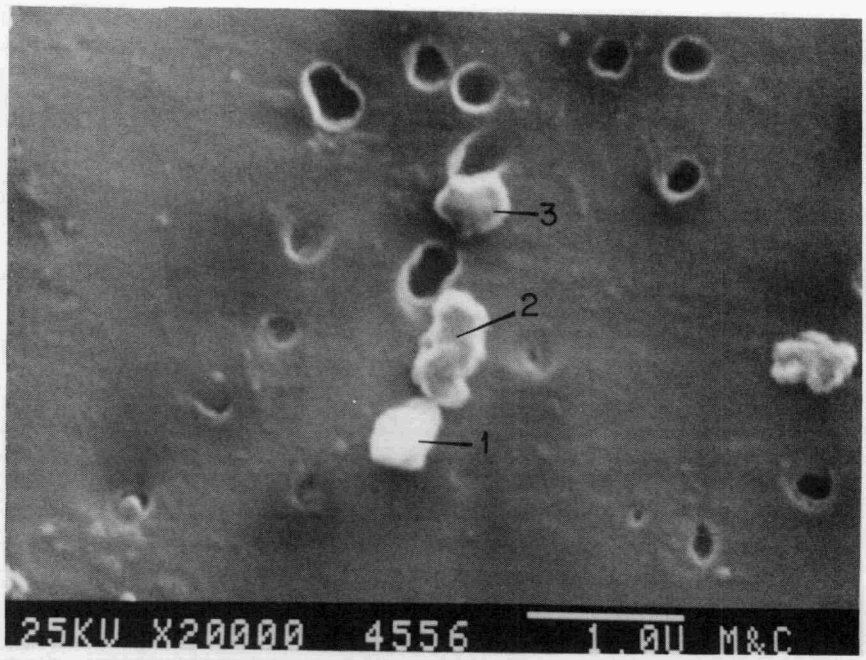

Fig. F.40. Nuclepore filter test 4 with 4-NTU water sample W3, 0.4-μm filter.

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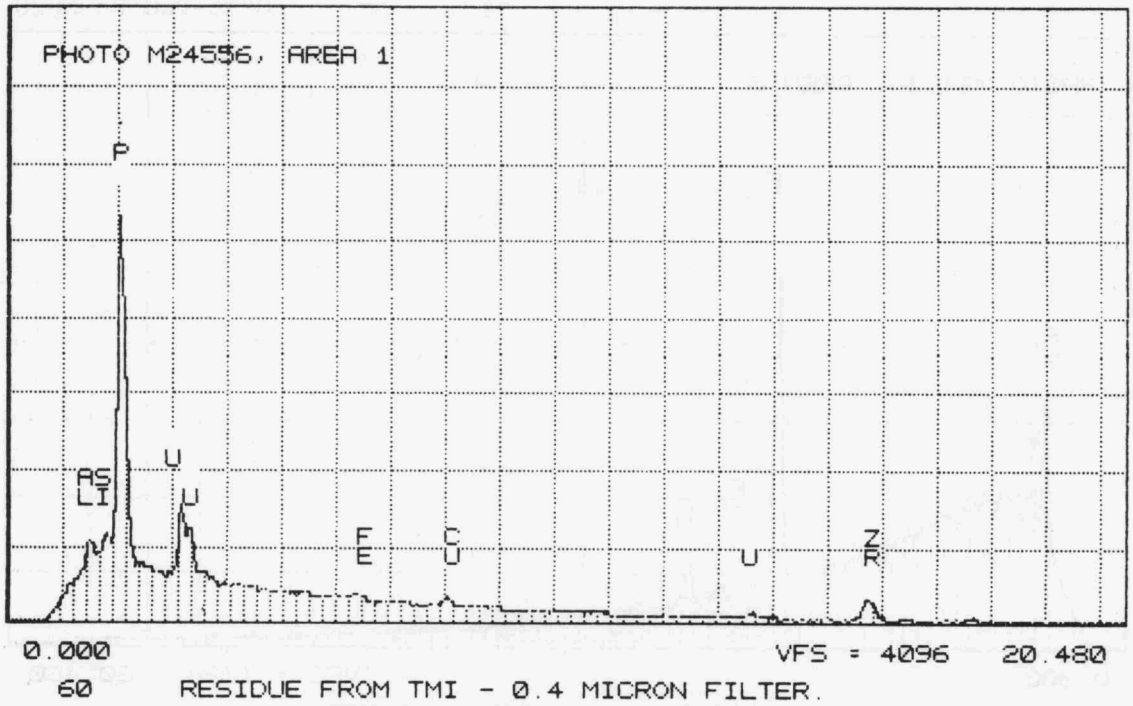

Fig. F.41. EDX of particle No. 1, 4556 (see Fig. F.40).

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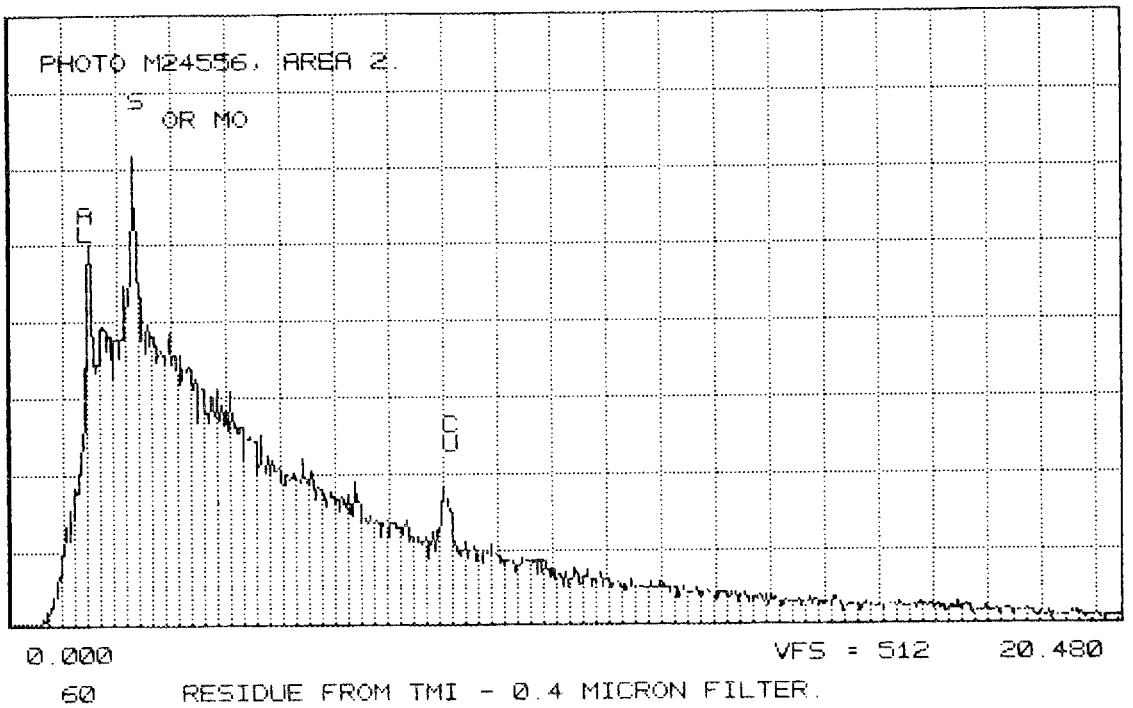

Fig. F.42. EDX of particle No. 2, 4556 (see Fig. F.40).

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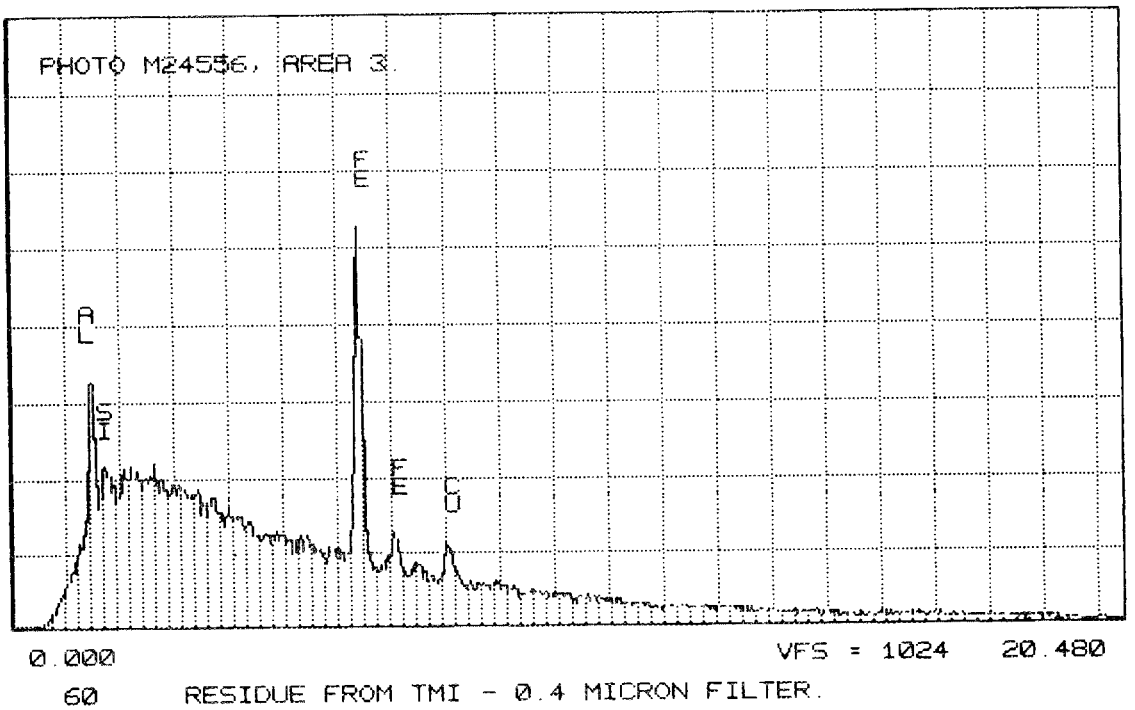

Fig. F.43. EDX of particle No. 3, 4556 (see Fig. F.40).

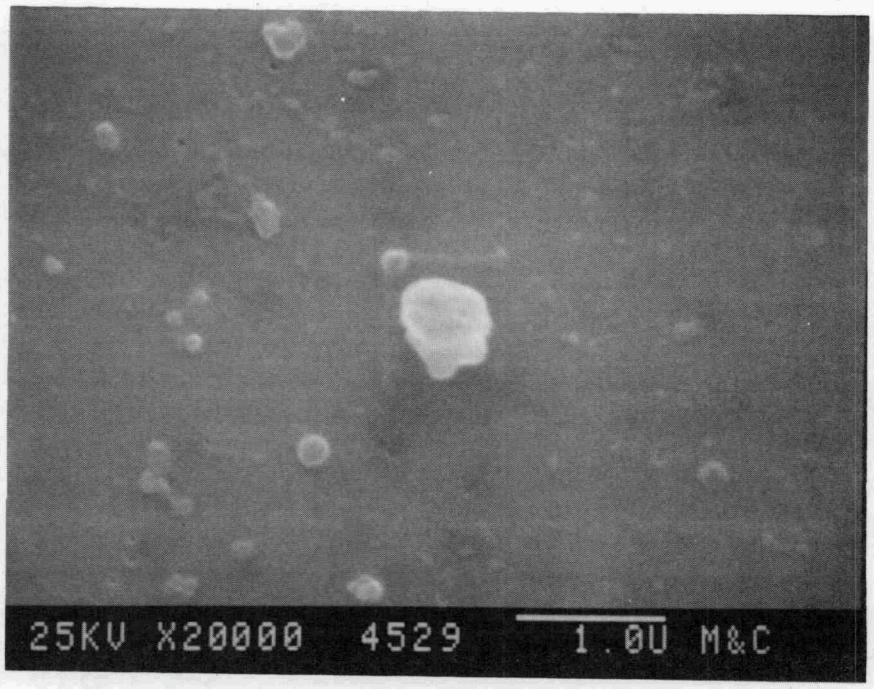

Fig. F.44. Nuclepore filter test 4 with 4-NTU water sample W3, 0.1-μm filter.

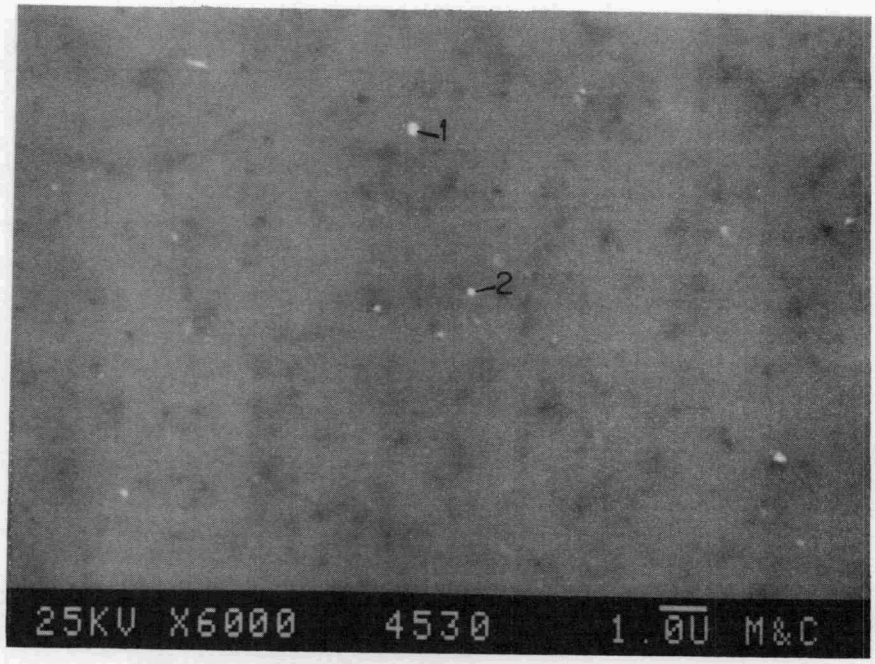

Fig. F.45. Nuclepore filter test 4 with 4-NTU water sample W3, 0.1-μm filter.

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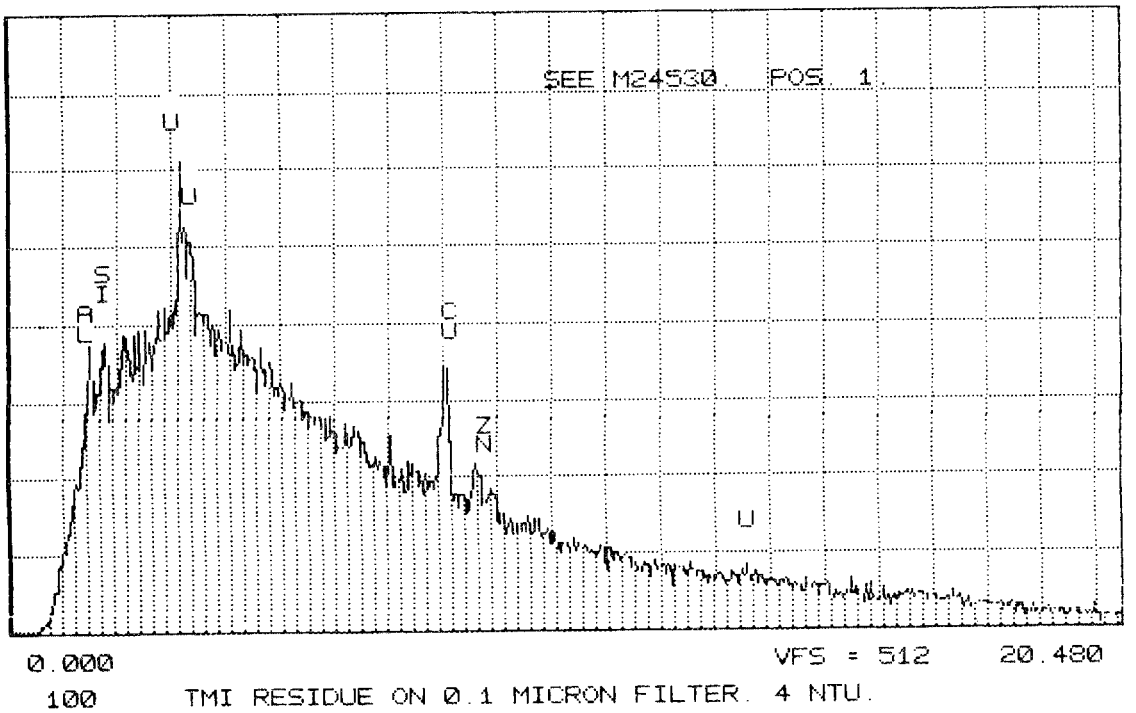

Fig. F.46. EDX of particle No. 1, 4530 (see Fig. F.45).

ORNL-DWG 88-6622

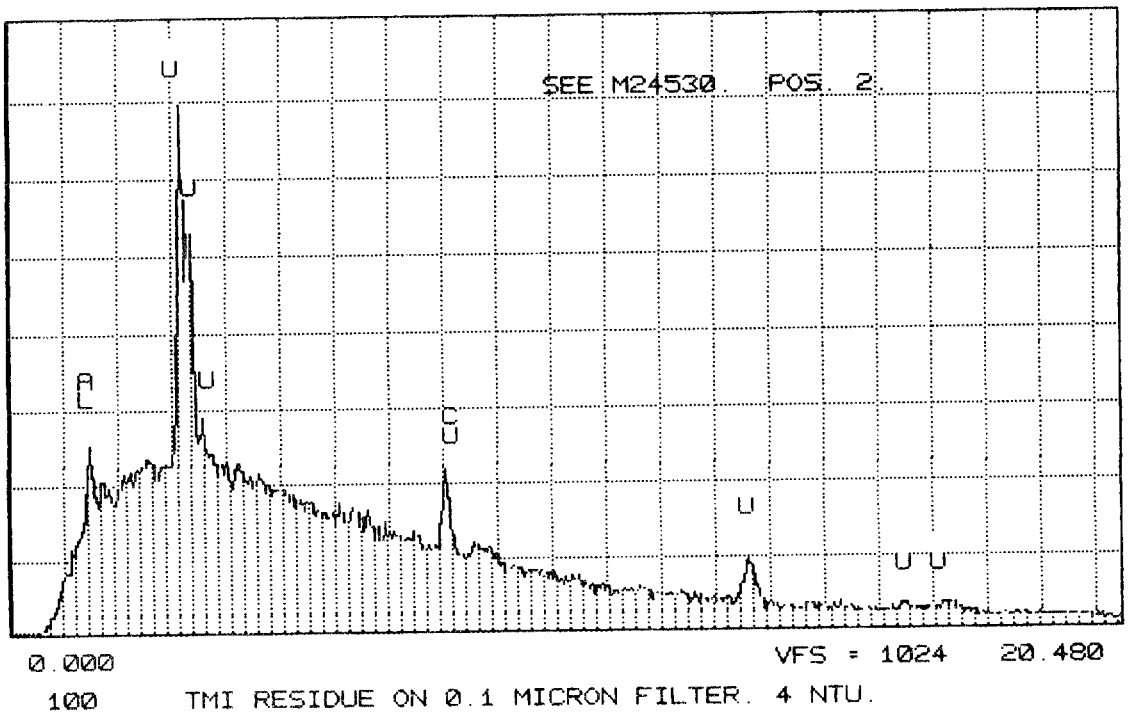

Fig. F.47. EDX of particle No. 2, 4530 (see Fig. F.45).

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