

# Commercial Announcements

## Siemens Analytical X-ray Instruments, Inc. Created

Siemens Energy & Automation, Inc. of Atlanta, Georgia and Nicolet Instrument Corporation of Madison, Wisconsin have announced the creation of Siemens Analytical X-Ray Instruments, Inc., a joint venture that will involve a full range of activities in the analytical X-ray instrument business. The new company began operation on July 2.

The new company includes Nicolet's current analytical X-ray product line and will make products in that line available to Siemens for distribution to the worldwide market. In addition, the joint venture will, exclusively, market related Siemens products in the United States.

Siemens Analytical X-Ray Instruments, Inc. will offer the most comprehensive technologically advanced line of analytical X-ray products available worldwide, including X-ray powder diffraction and fluorescence instrumentation, as well as single-crystal structure applications and two dimensional X-ray imaging.

Siemens Analytical X-Ray Instruments, Inc. will be headquartered in Madison, Wisconsin with a major sales and service support activity in Cherry Hill, New Jersey.

Headquartered in Atlanta, Georgia, Siemens Energy & Automation, Inc. is a manufacturer of electrical and electronic equipment and systems for electric utilities, commercial and residential construction, and general industry. A member of the Siemens Group, the company's products are marketed worldwide.

Nicolet designs, manufactures and markets instrumentation for a broad range of analytical chemistry, neurodiagnostic, and electronic engineering problem solving applications in science and industry. The Company's headquarters are located in Madison, Wisconsin.

## Used Analytical X-ray Systems & Accessories Being Offered by ES Industries

You might be interested in learning about some used analytical X-ray systems and accessories that ES Industries currently has available for sale. These items include the following:

1. A Siemens Type "F" X-ray Diffraction System, including generator, horizontal diffractometer with flanged tube stand and measuring electronics (capable of being automated).
2. A Siemens SRS-1 X-ray Spectroscopy System, including generator, SRS-1 Spectrometer with 10-position sample holder and measuring electronics (capable of being automated).
3. A DEC PDP-1153 Computer System - complete.
4. A Paar Kratky Camera - complete.
5. Various X-ray components and accessories.

These systems offer you a way to get into specific analytical X-ray techniques at a substantial saving over the cost of a completely new system. Perhaps they present you

with a way to prove to management the feasibility of the technique at an affordable price.

If you are now a user of Siemens analytical X-ray equipment, then you might want to consider some of the items under Section #5. as spare parts for stock. Some of these items are becoming difficult, if not impossible, to obtain. By buying now, you are sure of having a part when you need it.

If you have any questions, please write to ES Industries, 8 S. Maple Avenue, Marlton, NJ 08053 or call their Toll free number - 1-800-356-6140.

## X-ray Fluorescence Software for Personal Computers

(Editor's note: Information on earlier versions of these programs appeared in the December 1987 issue of *Powder Diffraction*. The name and address of Rainier Software were inadvertently omitted.)

Rainier Software, 24714 S.E. Mud Mountain Road, Enumclaw, Washington 98022, announces the availability of the following software:

### NBSGSC

#### Version 4.0

NBSGSC, a personal computer version of the NBS main-frame program, provides fundamental parameters XRF analysis with the COLA algorithm. Parameters include mass absorption coefficients, fluorescence yields, jump ratios, and line and edge wavelengths. Both measured or calculated tube source spectral distributions are selectable. Monochromatic and secondary target sources are accepted. Mass absorption coefficients are calculated from either Heinrich or Thin and Leroux. Up to 25 analytes can be determined in up to 20 metal, oxide, or fused disk samples. Four different calibration curves are selectable. The program provides for known concentrations of unanalyzed elements. NBS updates and many other improvements are incorporated. Optional data entry, editing and disk storage by spreadsheet. Graphics display of calibration curves.

Utility programs and sample data files are included. Source code for user automation of data entry is included.

CALCO87 calculates theoretical alpha coefficients by means of fundamental parameters.

COMP87 applies the alpha coefficients from CALCO87 through the COLA algorithm to the calibration of standards and the determination of unknowns.

SDCC calculates infinite thickness or corrects thin-film intensities.

5¼" or 3½" disks with documentation.

### Available Format

MS-DOS 2.0 or higher for IBM PC, PS/2, or compatible with 256K RAM and floppy and/or hard disk drives. Requires math coprocessor. Printer is optional. Graphics drivers.

The price is \$750.00.

## **CORSET**

Version 2.0

CORSET, a personal computer version of Stephenson's mainframe program, provides quasi fundamental parameters X-ray fluorescence analysis by a most-efficient excitation energy algorithm which requires no source spectral distribution. The program applies necessary corrections for absorption and secondary fluorescence. The package contains programs to create, edit, and analyze data files. Sample data files are included. Up to 25 analytes under MS-DOS or 10 elements under Apple CP/M can be analyzed from a single composite standard, multiple composite standards, or multiple pure-element standards.

The data for standards and unknowns are contained in separate files. This enables the user to design the analytical task with great flexibility. MS-DOS version provides for optional data entry, editing and disk storage by spreadsheet.

Under MS-DOS the program accepts data and reports results in weight percent element, weight percent oxide, atomic percent element, and mole percent oxide formats. Under CP/M only weight percent element is reported.

5¼" or 3½" disk with documentation.

### **Available Formats**

1. MS-DOS 2.0 or higher for IBM PC, PS/2 or compatible with 256K RAM and floppy and/or hard disk drives. Printer is optional. Math coprocessor required.
2. Apple II CP/M for Apple II series with Z-80 card, 80-column with lower case, 64K RAM and floppy and/or hard disk drives. Printer is optional.  
The price for MS-DOS version is \$450.00  
The price for CP/M version is \$250.00.

## **XRF4**

Version 2.0

XRF4, a personal computer version of H.E. Marr's

BuMines IC 8712 program, reduces X-ray fluorescence data by means of popular empirical calibration models and flexible regression constraints in an off-line environment. The package contains programs to create, edit, and analyze data files. MS-DOS version provides for optional data entry, editing and disk storage by spreadsheet and graphics display of calibration curves. Sample data files are included. Up to 25 elements under MS-DOS or 6 elements under Apple DOS 3.3, ProDOS or Apple CP/M can be analyzed for up to 50 samples.

Calibration models in SRF4 include straight line, multiple linear regression, self-absorption, Lucas-Tooth, Lachance-Traill, Rasberry-Heinrich, and Claisse-Quintin.

XRF4 offers to the user the flexibility of selection of all regression constraints and selection of model.

XRF4 is cyclic. At the end of each calculation the user can choose to print results, print coefficients, eliminate bad standards, change the model, change the element being regressed, or change constraints. XRF4 automatically identifies bad standards and offers the user the chance to eliminate them.

5¼" or 3½" disk with documentation.

### **Available Formats**

1. MS-DOS 2.0 or higher for IBM PC, PS/2 or compatible with 256 K RAM and floppy and/or hard disk drives. Math coprocessor required. Printer is optional. Graphics drivers.
2. Apple II CP/M for Apple II, II + , IIe, or IIc with Z-80 card, 80-column with lower case, 64K RAM and floppy and/or hard disk drives. Printer is optional.
3. Apple DOS 3.3 or ProDOS for Apple II series 48K RAM and floppy and/or hard disk drives. Printer is optional.  
The price for MS-DOS version is \$350.00  
The price for Apple versions is \$150.00.