

Software for Chemists

ChemLit and ChemFile are programs designed to organize data on an IBM PC. The ChemLit program handles descriptive information in text form and ChemFile manages integer and decimal data types and a small amount of text. Designed as "Personal Electronic Notebooks" for chemists, the programs provide an easily searchable record of work and a powerful way to correlate, manage and analyze data. With ChemLit, a chemist may create a database of chemical structures with or without an abstract. If used, the abstract may include any information such as reaction conditions, literature references, and other information pertinent to the structure. Drawing routines feature four menu items: DRAW, RING, GROUP and BOND. DRAW is used for freehand sketching or connecting disparate atoms. RING is for creating rings, and GROUP opens up the keyboard for input of substituents and hetero atoms. BOND is used to modify types. ChemFile creates a database of structures and data using as many as 20 data fields designed by the user. The data fields may contain text or data in either integer or decimal form. Both programs are menu-driven with structure entry by cursor keys or mouse. Content-specific help screens are instantly available at any point in the program. Information retrieval capabilities include string, data and substructure searching. COMPRESS Division of Wadsworth. Circle 596.

Superminicomputers

The C1260 and C1230 superminicomputers are designed for computer-aided engineering and scientific research. They fill the void between mainframes and engineering workstations. System features include a proprietary 32-bit ACCEL processor and floating point coprocessor, reduced instruction set (RISC)-based architecture, the Berkeley 4.2 UNIX standard operating system, advanced applications software support, and open communications and graphics. A dual-processor option available on the

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C1260 significantly increases program execution speeds. The systems offer main frame-class disk storage and input/output capacity and multiuser support for up to 128 users. Systems are based on industry-standard hardware and software platforms that allow flexible system expansion. Using the Whetstone benchmark, the dual-processing C1260 has a throughput of 6.15 million Whetstone instructions per second, single precision. The C1230 performs single-precision operations at 3.25 million Whetstone instructions per second. Celerity Computing. Circle 599.

Isolated Physiological Stimulator

This instrument is applicable to in vivo or in vitro stimulation protocols. It features an integral isolator. Constant current is regulated to within 2 percent over a range of tissue resistance of 900K ohms. The output is adjustable from 0 to over 50 mA. It is



precisely settable with an onboard peak current meter. A Sync/Sequence input-output configuration allows the user to use multiple stimulators for multisite, synchronized, isolated, propagation, refractory, and priming designs. The stimulator is capable of single or dual pulse monophasic stimulation of either polarity; biphasic leading positive or negative; and single pulse, timed, or counted stimulus trains. Coulbourn Instruments. Circle 600.

Vibration Isolation for NMR Spectrometers

Model VIS-2000 is a nonmagnetic vibration isolation system. Due to the nature of their operation, NMR spectrometer magnets are sensitive to vibration. They cannot tolerate proximity to ferromagnetic materials. Model VIS-2000 uses sensitive isolators and all-aluminum construction to solve these problems. The magnet is nestled in a cradle with the isolators forming the pivot point at a distance high above the center of mass of the whole system; this produces a

mechanically passive system with a natural frequency of a couple of cycles if disturbed. The modular construction of the system makes it suitable for all NMR spectrometer magnets. Magnets weighing up to 2 tons may be accommodated. Optikon. Circle 601.

Ultraviolet-Visible Spectrophotometer

The DW-2000 combines four distinct modes (double beam, dual wavelength, dual wavelength scanning, and millisecond kinetics) with a wide range of accessories and the option for external microcomputer control and post-acquisition processing. It features automatic lamp changeover and user-defined changeover wavelength to allow scanning across various wavelengths. Computer control automates slit width selection. An automatic zoom lens assures photometric accuracy and the optical beam scrambler minimizes magnetic interference and improves baseline flatness. The optical chopper is microprocessor controlled; normal chopping speed is 250 Hz, millisecond kinetics speed is 1000 Hz. The DW-2000 offers good signal-to-noise ratio and reduction of stray light. Slits are continuously variable and may be set to any value up to 15 nm. Holographic gratings with 1200 grooves per millimeter reduce stray light to a minimum. SLM Instruments. Circle 602.

Parallel Multicomputers

The Series 600 and Series 1200 FLEX/32 feature all of the functionality and performance of the massively parallel FLEX/32 MultiComputer in 21-inch-high standard 19-inch rack-mountable card cages for embedding in desk-high consoles and systems. Every series of the FLEX/32 features the same parallel and multiple bus structure and each series is completely software compatible with the others. Software developed on one FLEX/32 series may be run without change on any other FLEX/32 series. The systems integrator can develop parallel systems for applications which require embedded or desk-high cabinetry. If necessary, processing power, memory and input/output bandwidth may be added. Because of the parallel nature of its multiple computer architecture and its multiple intercomputer communications buses, the FLEX/32 can provide performance beyond that of computers based on only one processor or multiprocessors with only one internal communications bus. Flexible Computer. Circle 603.

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