

Introduction

Since its introduction, the CAD 4 Kappa Diffractometer has become the outstanding system available. The diffractometer design opened new possibilities of accuracy, reliability and simplicity of operation to the crystallographer, both in its hardware and software. The use of Kappa Geometry not only provides a completely open system, eliminating the hardware obscuration of a chi circle, but provides, in addition, the highest possible accuracy which is maintained over the long life of the instrument.

There is ample space to work with all necessary accessories like high and low temperature devices, low or high pressure cells and others. In most cases, obscurations from these devices are either avoided or greatly reduced using the Kappa Geometry. The system permits the crystallographer a choice of whether to work with an almost completely automatic system or to utilize its many facilities

for intensive crystal study and investigation.

The revolutionary goniometer is coupled with an outstandingly high-stability X-ray generator and computer control equipment ranging from the most basic to the most sophisticated system.

Complete software systems have been developed which are provided at no additional cost. All programs offer the user a wide choice in planning experiments.

The basic CAD 4 system includes a PDP-8 computer with 8K of core memory, 1.6 million words disk, read write magnetic tape and DECwriter terminal. With a slightly expanded PDP-8 computer control programs are available in FORTRAN IV language. For only a minor difference in price this CAD 4 F offers the most complete software system ever developed for

a commercial single crystal diffractometer and at the same time it supplies a possibility for the crystallographers to add their own ideas and programs. Optional systems include control by powerful computing systems, like the PDP-11/34 and the PDP-11/60. Structure factor calculation programs are available for larger DEC computers. Both the diffractometer control programs and calculation programs are written in FORTRAN IV to operate in dynamical priority time-sharing mode.

Crystallographers have looked towards Enraf Nonius with confidence based on our long experience in developing X-ray diffraction equipment, including single crystal diffractometers. The CAD 4 is the most efficient assistant of the modern crystallographer and serves to save his precious time which can be devoted to the real scientific problems now.