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NO. 215 A COMPARISON OF STATE-OF-THE-ART PHOTODIODE ARRAY AND MULTITASKING UV/VIS DETECTORS FOR HPLC ANALYSIS

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With the rapidly increasing number of UV/Visible type detectors available it becomes difficult to determine what type of unit best meets your laboratory requirements. This tremendous amount of state-of-the-art technology makes it difficult if not confusing when trying to justify what equipment will be purchased. This justification can become even more difficult when one has to also include in this evaluation the computer software necessary to interpret and present the data. One example of this is the photodiode array type detectors.

In this paper an evaluation of a photodiode array detector and a multitasking UV/Visible detector will be performed to explore their strengths and weaknesses in normal laboratory operation. The areas to be investigated will include optical performance (signal-to-noise, drift, linearity, etc.) and software performance (ease of use, ease of data interpretation, real time data output, etc.). The emphasis on software will be focused on speed of operation, user friendly design, quality of graphics, and flexibility of software routines.

Operational advantages and disadvantages of total system performance will be investigated to aid the analyst in decisions regarding instrumentation best meeting his analytical needs.