

## UV-SPECTOR APPLICATION

### Inline Monitoring of Chromatographic Steps – Improved Quality and Yield in Biopharmaceutical Processing



Large-scale chromatographic steps are used to filter and purify biopharmaceuticals such as proteins, antibodies or hormones. Accurate and real-time data are essential for more aggressive pooling criteria, which maximize yield and improve product quality.

UV-SPECTOR, Solvias' fiberoptic inline spectrometer, provides the most accurate process analysis in the 200 nm to 750 nm range. A single spectrometric unit can accommodate up to six measuring points, and with the UV-SPECTOR's optical resolution of 1 nm, process data are directly comparable to laboratory analytics. The UV-SPECTOR can also be equipped with a pressure tight housing in accordance with EEx d IIc T6. Moreover, to meet the demands of the pharmaceutical industry, the UV-SPECTOR's operating software is compliant with 21 CFR Part 11. With the BIOPRO flow cells directly mounted in the column outlet, inline analysis saves time and money by drastically reducing human error and eliminating time-consuming laboratory analytics.

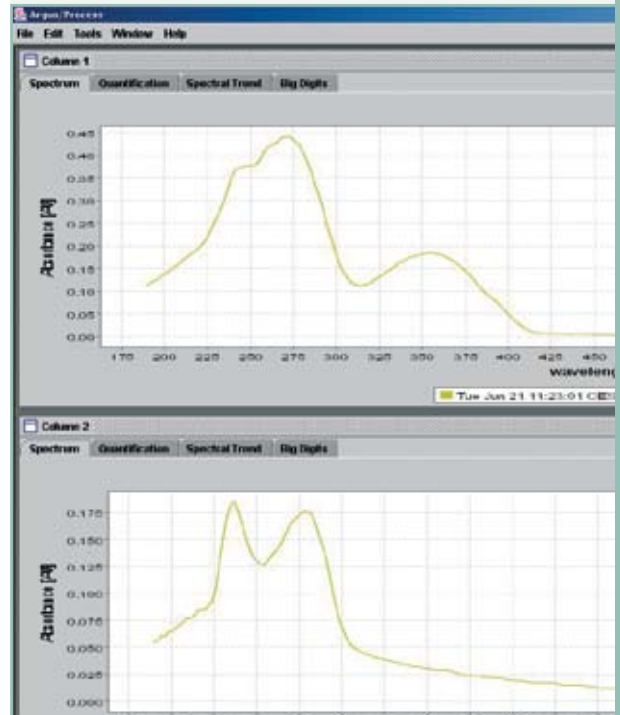
#### Clear Advantages at a Glance



- Inline spectrometric process control
- Real-time multicomponent analysis
- Up to 6 measuring points per spectrometer
- Verifiable process capability
- 21 CFR Part 11-compliant software
- ATEX-certified for use in Ex zones
- Easy to operate

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## BIOPRO Specifications

Each BIOPRO flow cell is constructed of stainless steel (SS 316L) with the wetted surfaces electropolished to a < 40 micron surface finish.

The optical windows are made from single crystals of either sapphire or quartz, depending on the spectral range of interest. FDA-approved sealing rings are available in EPDM, Viton®, silicone or Kalrez® to meet individual customer demands. BIOPRO's flexible path length construction ensures coverage of a broad concentration range.

The BIOPRO flow cell also meets the Cleaning in Place (CIP) or Sterilization in Place (SIP) specifications.



## Total Service – from Spectrometers to a Complete Range of Accessories

We offer much more than just process spectrometers. Our fiber-optic probes and comprehensive accessory program include everything you need to implement a measuring point directly into your biopharmaceutical production process.

Ask us about the optimal solution for you.



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