

## PRESS RELEASE

Hamilton launches “ArcAir Data Modeling” software:

### Real Time Viable Cell Density Measurement for Bioprocess Monitoring

**(Bonaduz, December 7, 2021)** - Hamilton Company announced today the launch of its new software “ArcAir Data Modeling” – AADM – that precisely correlates in-line measurement data from Hamilton’s Incyte Arc sensor with off-line viable cell counts over the complete duration of the run.

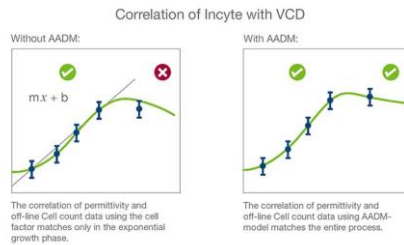


While the Incyte Arc sensor is a sensor to measure on-line viable cell volume (permittivity), many bioprocess operators would like an on-line measurement that is comparable with the historic off-line viable cell density measurement. The ArcAir Data Modeling now enables biomanufacturing companies to precisely steer their bioprocesses based on the viable cell density and reduce the need for frequent and tedious off-line sampling.

ArcAir Data Modeling is a multivariate data analysis (MVDA) software that combines multiple measurement parameters from Hamilton's Incyte Arc sensor into a soft sensor that provides a well-correlated cell density reading throughout the process. The software uses historical sets of frequency scan data from Incyte Arc along with off-line viable cell counts to closely correlate the in-line signal with off-line data points in bioprocesses in real time.

Historically, the correlation between in-line measurements and off-line cell counts was difficult as the measurements are based on different measurement principles. While the commonly used linear correlation method provides relatively precise data in the lag and

exponential growth phases, due to the differing measurement principles data in the stationary and death phases differ from each other.



“I like the idea of a continuous viable cell density measurement in process and the benefits it provides with reduced off-line sampling and reduction in effort of sample processing”, explains Katharina Dahlmann, product manager cell density at Hamilton Bonaduz AG. “ArcAir Data Modeling provides a soft sensor that will enable our customers to keep a full picture of their bioprocess, that is comparable with historical bioprocess data and enable new process control strategies in the future”.

More information about this new tool is available on Hamilton’s website <http://www.hamiltoncompany.com/aadm>. Interested persons will find a contact form as well to directly reach out to Hamilton’s network of application experts.

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## About Hamilton Process Analytics

A division of Hamilton Bonaduz AG, Hamilton Process Analytics’s mission is to pioneer open sensing and measurement solutions to enhance the understanding and control of critical process parameters such as pH, dissolved oxygen, dissolved carbon dioxide, conductivity, and cell density.

Hamilton Bonaduz AG (Bonaduz, Graubünden, Switzerland) and its sister company Hamilton Company (Reno, Nevada, USA) specialize in the development, manufacturing and customization of precision measurement devices, automated liquid handling workstations, and sample management systems.



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