

Process Control by in-situ Glucose sensor at low and high Glucose levels

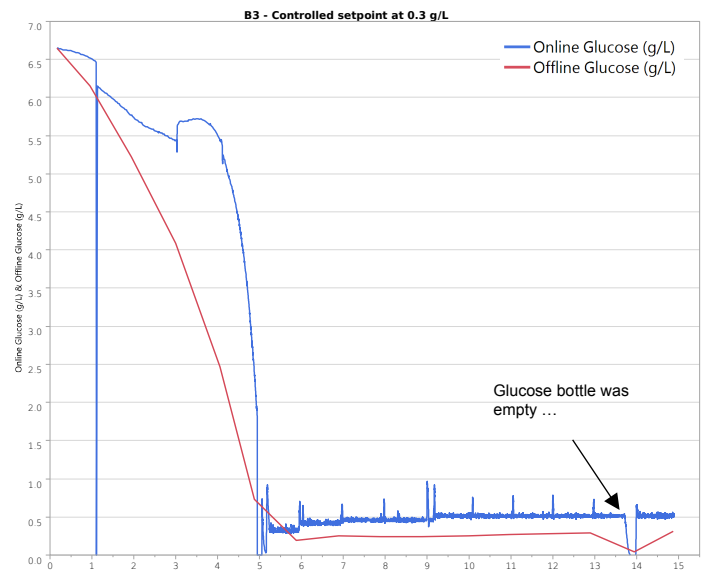


For the first time an in-situ glucose sensor was used to control processes by direct parameter measured in-situ and in real time. build in to a PG 13.5 Plug and was inserted in a SUB of 5 liter. The cultivation time was 14 days.

A feed pump was directly connected to the PC of C-CIT Sensors AG and was controlled by the own software. There was no extra process control unit necessary. As shown in the graph the glucose concentration was kept at 0.5 g/l over 14 days. The in-situ glucose sensor only shows a small offset compared to the off-line analysis. On day 13 the bottle with feed media was empty which was detected by the glucose sensor immediatly because of missing glucose feed.

After connecting a new feed bottle the sensor signal went up to the original signal quickly. During this 14 days the sensor was not recalibrated.

It is shown that the in-situ glucose sensor of C-CIT Sensor Ag is perfectly designed to control processes based on glucose level in small vessels as well as in SUB's (scale up) and at low as well as at high glucose levels.



Our sensors let you focus on what really matters.

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