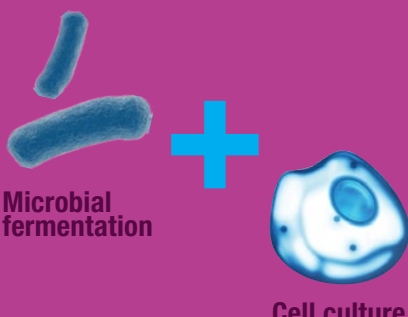


5 Reasons to use Process Mass Spectrometry in Biotechnology

1 Monitor
microbial fermentation and cell culture with the same analyzer



Microbial fermentation + Cell culture

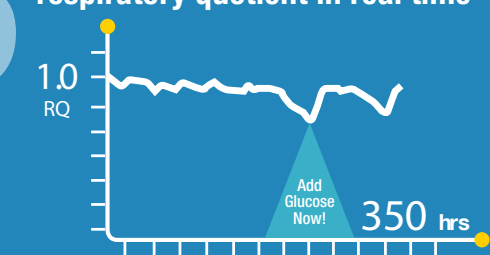
2 Identify
process deviations and batch to batch variation

Increase profits



Decrease contamination

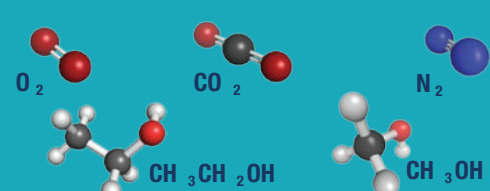
3 Maximize
viable cell mass by tracking respiratory quotient in real time



1.0 RQ

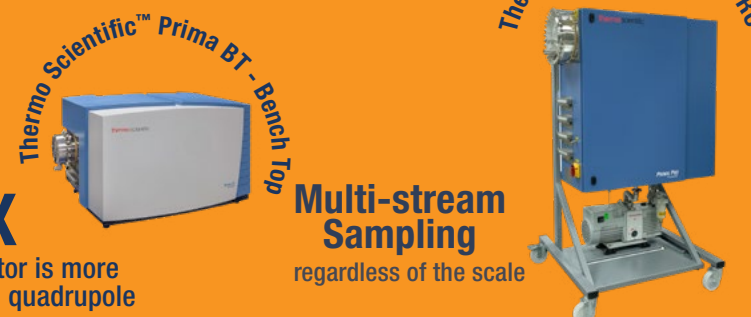
Add Glucose Now! 350 hrs

4 Precise
configurable analysis of respiratory gases and volatile organics with GasWorks® Software



O₂ CO₂ N₂ CH₃CH₂OH CH₃OH

5 Scalable
scanning magnetic sector technology for lab scale or large scale production.

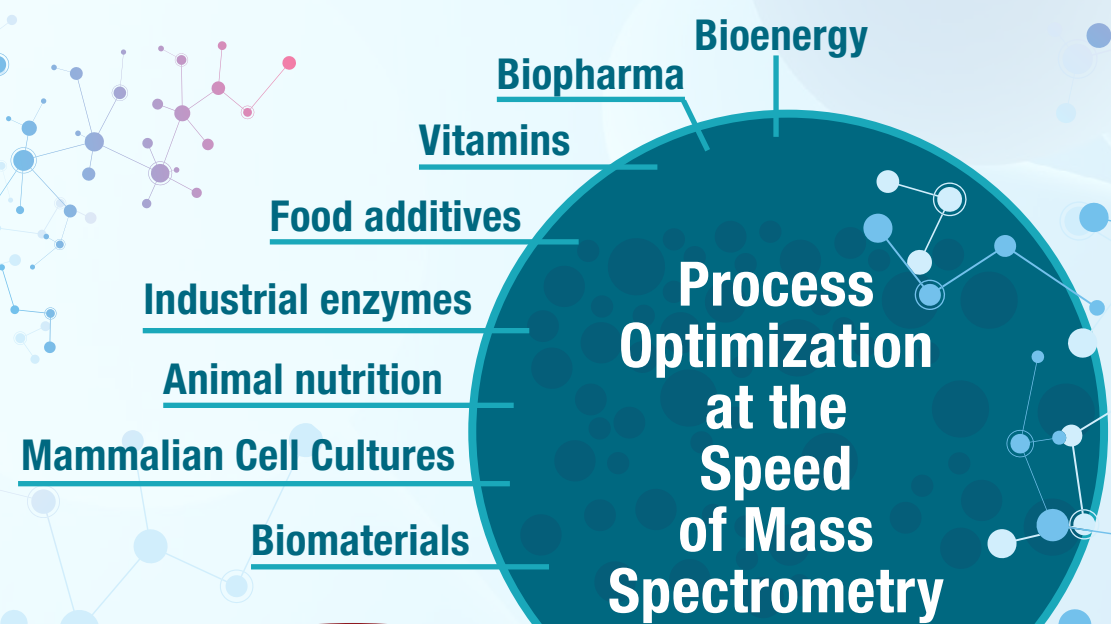


Thermo Scientific™ Prima BT - Bench Top

Thermo Scientific™ Prima PRO

2-10X
Magnetic sector is more accurate than quadrupole technology

Multi-stream Sampling
regardless of the scale



Process Analytical Technology (PAT) Program

A Process Analysis Tool backed by the FDA's PAT Guidelines

"PAT is a system for designing, analyzing, and controlling manufacturing through timely measurements...with the goal of ensuring final product quality."