# Miniature and bench-scale Multi-Bioreactor systems

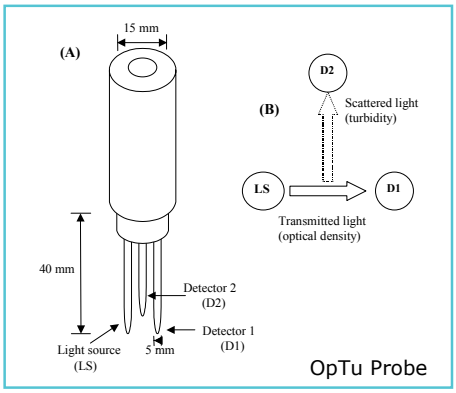

Left: **XPLORER** using ~ 100ml vessels for parallel operation
(~ W 40cm x H 80cm x D 60cm)

Below: **XPERT** bench-scale multi-bioreactor system
(~ W 96cm x H 60cm x D 50cm)


BIOXPLORE
*the benchmark for R&D bio-reactors*

# OpTu Probe

The off-line analysis of biomass clearly has disadvantages, and so BioXplore is proud to introduce its **OpTu Probe, an on-line Optical Measurement Probe that measures Optical Density and Turbidity in parallel, giving you twice as much optical data than you would get from a traditional probe**; the probe can be autoclaved.

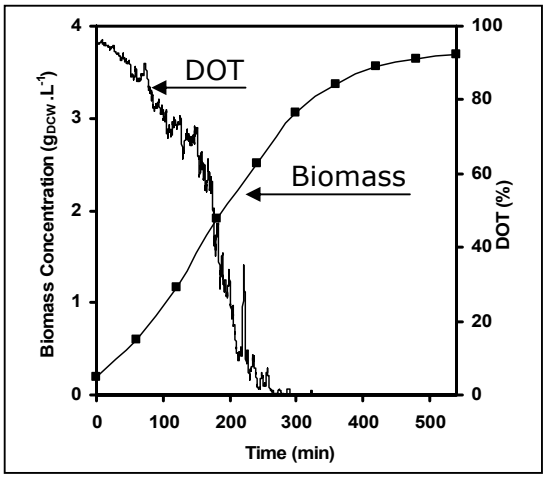


OpTu Probe

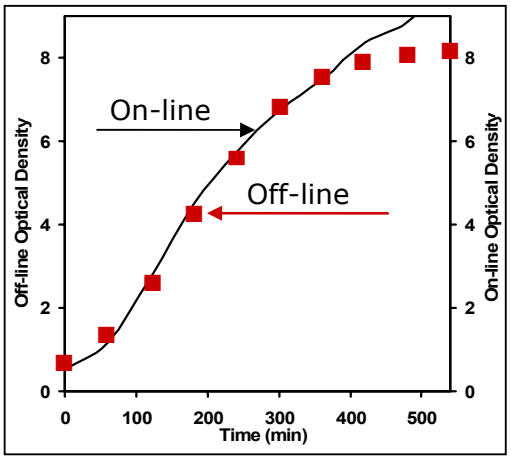

OpTu Probe

- A steam sterilisable on-line optical measuring probe, both: Optical Density (Transmittance) and Turbidity (Scatter and Transmittance) measured in parallel
- Compares extremely favourable with off-line analysis, and avoids all the disadvantages
- No need for sampling
- No reduction in medium volume due to sampling

BioXplore's biotechnologists have studied fermentations using OpTu probe and compared it to off-line analysis; it was evident that there was a good correlation between the OpTu Probe and the off-line analysis. The OpTu probe gathered both Optical Density and Turbidity data.



*E. Coli. Fermentation carried out in the Xplorer bioreactor and monitored on-line with OpTu probe*



*OpTu Probe's Turbidity measurement shows a good correlation with the off-line analysis, and has all the advantages of being an on-line*

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