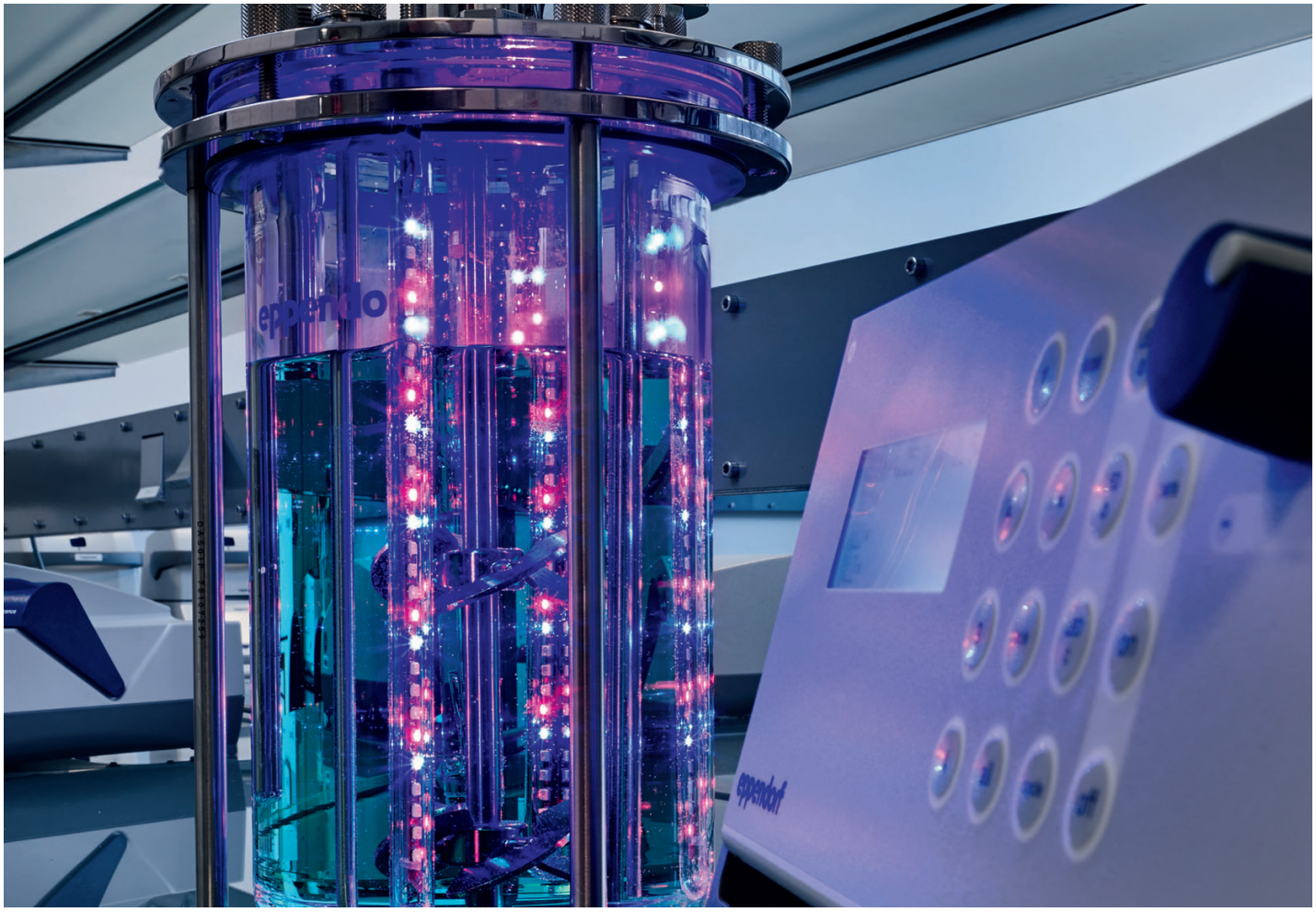
eppendorf

Spot On

DASGIP® PhotoBioreactor – For light-dependent cultivation applications

»Grow your cells and microorganisms under customized and variable lighting conditions.«



Light your way–with DASGIP® PhotoBioreactors.

Light can influence the growth and behaviour of cells and organisms in different ways. Phototrophic organisms use light as energy source. Photoreceptors mediate light-dependent regulation of enzymatic activity and gene expression. To address individual requirements, the DASGIP Parallel Bioreactor System for light-dependent applications enables illumination with selected wavelengths.

Individual illumination

With the DASGIP PBR4 Module, DASGIP PhotoBioreactors can be individually illuminated.

> Three channels reflect relevant chlorophyll absorption wavelenghts:
  > Channel A: 660 nm, 780 nm
  > Channel B: 572 nm, 625 nm, 640 nm
  > Channel C: 453 nm
> By selectively varying the light intensities of the different wavelength channels, both the spectral composition and the overall intensity of the resulting light can be adjusted according to individual requirements.
> Continuous or flash mode with adjustable period and pulse width
> Simulation of day/night cycles

Components of a DASGIP Parallel Bioreactor System for light-dependent applications

DASGIP Parallel Bioreactor System

> Parallel operation of up to 16 bioreactors
> Modular design of control units allows for flexible system configurations
> DASware® control software for advanced process control

DASGIP PhotoBioreactor

> Working volumes of 350 mL – 1.0 L and 750 mL – 2.6 L
> Up to four DASGIP LED Illumination Devices integrated
> Direct overhead drives with 30 – 1,250 rpm (100 – 1,600 rpm optional), pitched-blade impellers
> Sensors for pH, temperature, DO, redox potential, OD, level available

DASGIP PBR4 Photo-Bioreactor Illumination Module

> Parallel illumination of up to four photobioreactors with four DASGIP LED Illumination Devices per bioreactor
> Three different wavelenghts channels

DASGIP LED Illumination Device

> For illumination of DASGIP PhotoBioreactors within the bioreactor

Ordering information

Description	Order no.
DASGIP® PhotoBioreactor	
Vessel DR03P, pitched blade impeller, dip tube, 750 mL – 2.6 L, overhead drive, photobioreactor	76DR03P
Vessel DS1000ODSP, 2x pitched blade impeller, 350 mL – 1.0 L, 2x GL45 side arms, overhead drive, photobioreactor	76DS1000ODSP
DASGIP® PBR4 PhotoBioreactor Illumination Module	
PhotoBioreactors Illumination Module, for 4 vessels, without LED Illumination Devices	76DGPBR4
Stand-Alone PhotoBioreactor Illumination Module, for 4 vessels, without LED Illumination Devices, incl. Easy-Access Software	76DMPBR4
DASGIP® Illumination Device	
LED Stick, L 235 mm, O.D. 12 mm, universal wavelength 453/572/625/640/660/780 nm	78525301
LED Stick, L 235 mm, O.D. 12 mm, type B, WL 365/453/660/735 nm	78525311

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