

Abbreviations

ALA, 5-aminolevulinic acid
APD, avalanche photodiode
BBO, β -barium borate
CCD, charge coupled device
CFD, constant-fraction discriminators
COIL, chemical oxygen iodine laser
COT, cyclooctatetraene
CW (or cw), continuous wave
DBR, distributed Bragg reflector
DFB, distributed feedback
FAD, flavin adenine dinucleotide
FCS, fluorescence correlation spectroscopy
FD, frequency domain
FD-ODL, frequency-domain optical delay line
FISH, fluorescence in situ hybridization
FLIM, fluorescence lifetime imaging
FRAP, fluorescence recovery after photobleaching
FRET, fluorescence resonance energy transfer
FWHM, full-width at half-maximum
GDD, group delay dispersion
GFP, green fluorescent protein
GRINSCH, graded-index separate confinement heterostructure
GVD, group velocity dispersion
HB LED, high-brightness light-emitting diode
Hb, deoxy-hemoglobin
HbO₂, oxy-hemoglobin
HWHM, half-width at half-maximum
LED, light-emitting diode
MBE, molecular beam epitaxy

MOVPE, metal-organic, vapour phase epitaxy
NAD, nicotinamide adenine dinucleotide
NIR, near-infrared
NSOM, near-field scanning fluorescence microscopy
OCM, optical coherence microscopy
OCT, optical coherence tomography
OLED, organic light-emitting diode
OMA, optical multichannel analyzer
OPO, optical parametric oscillators
PCR, polymerase chain reaction
PDT photodynamic therapy
PMT, photomultiplier tube
QCL, quantum cascade laser
S/N, signal-to-noise (ratio)
SAD, seasonal affective disorder
SAM, self-amplitude modulation
SCH, separate confinement heterostructure
SNR, signal-to-noise ratio
SPM, self-phase modulation
TAC, time-to-amplitude converter
TCSPC, time-correlated single-photon counting
TD, time domain
TEA, transversely excited atmosphere
TIRFM, total internal reflectance fluorescence microscopy
TOD, third-order dispersion
VCSEL, vertical cavity surface emitting laser
YAG, yttrium aluminium garnet
ZAP, zero adjustment procedure