

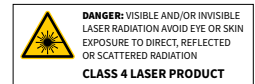
ORPHEUS | OPCPA

Compact Few-cycle CEP-stable OPCPA Systems Pumped by PHAROS or CARBIDE Lasers

Benefiting from the industrial-grade stability and reliability of the PHAROS and CARBIDE lasers, ORPHEUS-OPCPA delivers few-cycle, CEP-stable pulses in a package as compact as our standard parametric amplifiers. The different ORPHEUS-OPCPA models all use the same base architecture to produce CEP-stable, few-cycle pulses in one of the four wavelength ranges. ORPHEUS-OPCPA is available in versions with pulse compressors for direct use in applications or in versions intended as seed sources, delivering background-free pulses with near-single-cycle bandwidths, excellent spectral phase coherence, and CEP stability.



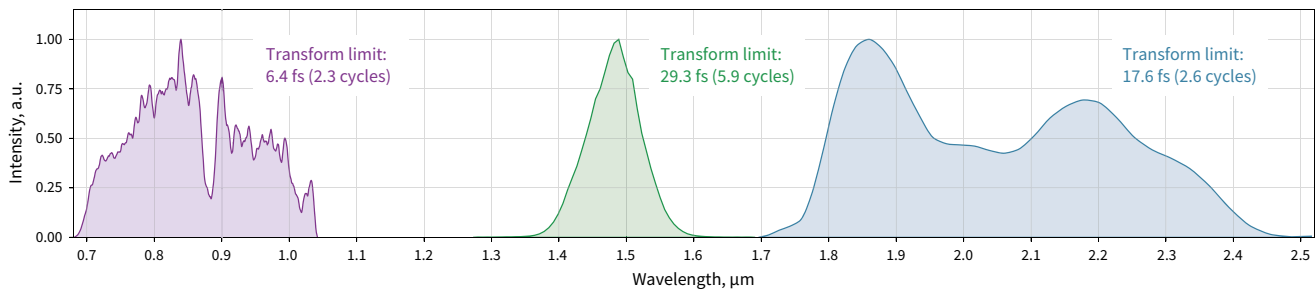
ORPHEUS-OPCPA-HR



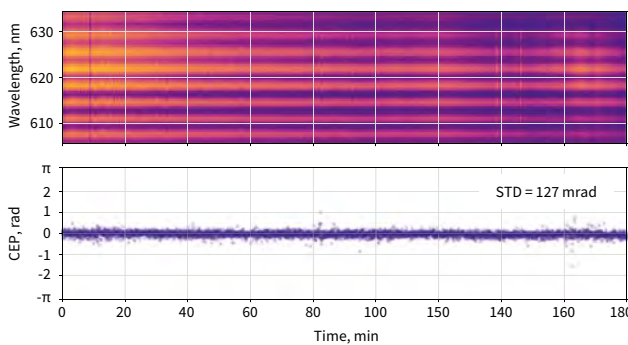
CONFIGURATIONS

Wavelength	800 nm	1.6 μm	2 μm	3 μm
Pulse duration (compressed)	< 10 fs	< 40 fs	< 25 fs	< 45 fs
Transform-limited pulse duration (uncompressed, for seeding larger amplifiers)	< 6 fs	< 30 fs	< 15 fs	< 35 fs

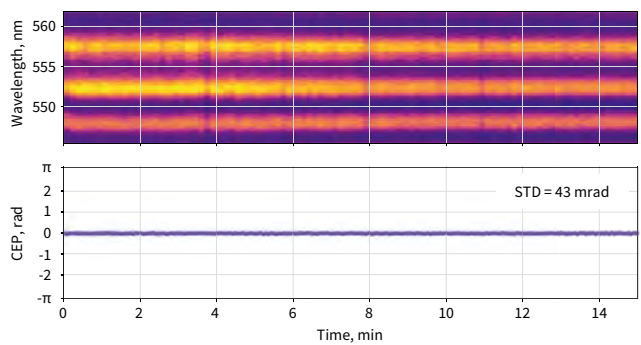
	Repetition rate	Pulse energy / Output power			
ORPHEUS-OPCPA	10 kHz	120 μJ / 1.2 W	240 μJ / 2.4 W	180 μJ / 1.8 W	120 μJ / 1.2 W
ORPHEUS-OPCPA-HE		0.55 mJ / 5.5 W	1.1 mJ / 11 W	0.8 mJ / 8 W	0.5 mJ / 5 W
ORPHEUS-OPCPA-HR	100 kHz	25 μJ / 2.5 W	55 μJ / 5.5 W	40 μJ / 4 W	30 μJ / 3 W
ORPHEUS-OPCPA-HP		100 μJ / 10 W	220 μJ / 22 W	150 μJ / 15 W	120 μJ / 12 W



Example spectra of three models of ORPHEUS-OPCPA



CEP stability of ORPHEUS-OPCPA (800 nm, 100 kHz)
All CEP values calculated from unaveraged, single-shot measurements!



CEP stability of ORPHEUS-OPCPA (3 μm , 1 kHz)
All CEP values calculated from unaveraged, single-shot measurements!