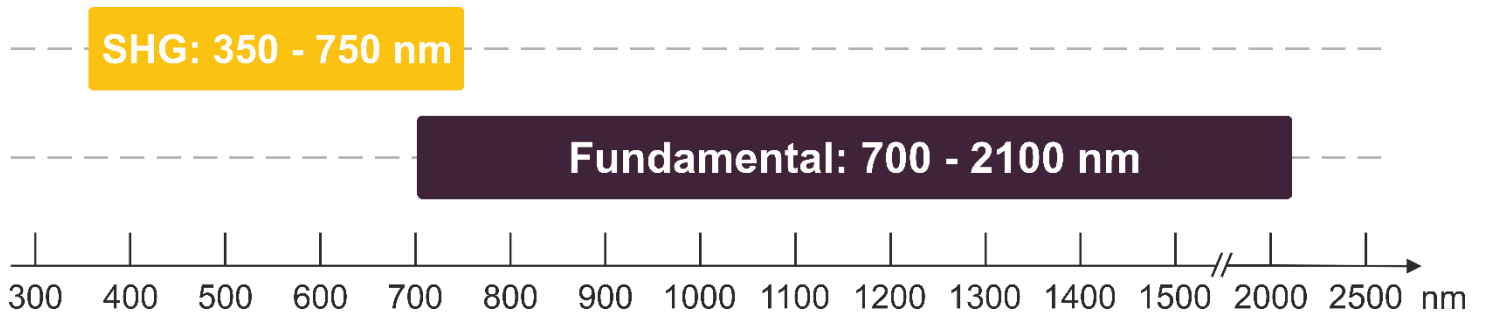


VALO SHG SF SINGLE-FREQUENCY VISIBLE VECSEL



- ▶ Turn-key VECSEL system for research (Vertical-External-Cavity Surface-Emitting Laser)
- ▶ Efficient intracavity doubling from NIR to VIS
- ▶ Broad wavelength coverage
- ▶ Single-frequency
- ▶ Tunable
- ▶ Excellent beam quality

Center wavelength	350 – 750 nm
CW power	0.5 - 2 W with the integrated pump laser
Tuning (typical)	Coarse: ± 1 nm around the center wavelength Fine: >2 GHz mode-hop free
Locked linewidth	<100 kHz (10 ms)
Beam quality	$M^2 < 1.2$
Frequency locking	Readiness with cavity piezo
VECSEL head size	320 mm x 190 mm x 100 mm (L x W x H)
System includes	VECSEL head with integrated pump laser VALO Control Unit for CW operation, 19"-rack installable Low vibration chiller (water-to-air or water-to-water), 19"-rack installable

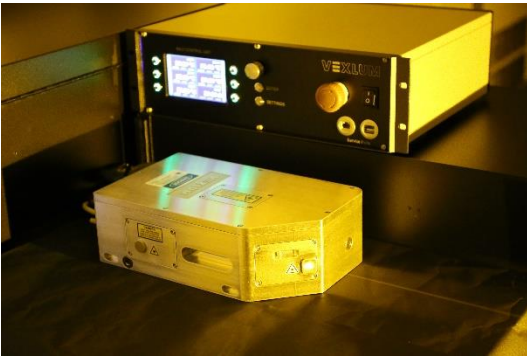


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VALO SHG SF SINGLE-FREQUENCY VISIBLE VECSEL



- ▶ Example data for yellow 583 nm system
- ▶ For laser cooling of erbium (Er)
- ▶ More than 2 W output power with diffraction limited beam
- ▶ Secondary NIR beam for frequency locking

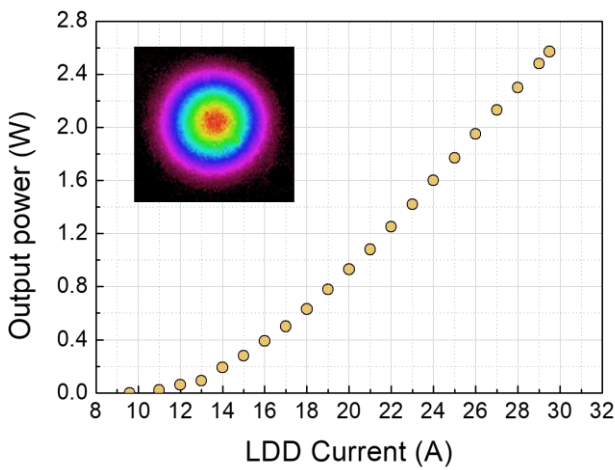


Figure 1. 583 nm output power vs pump current

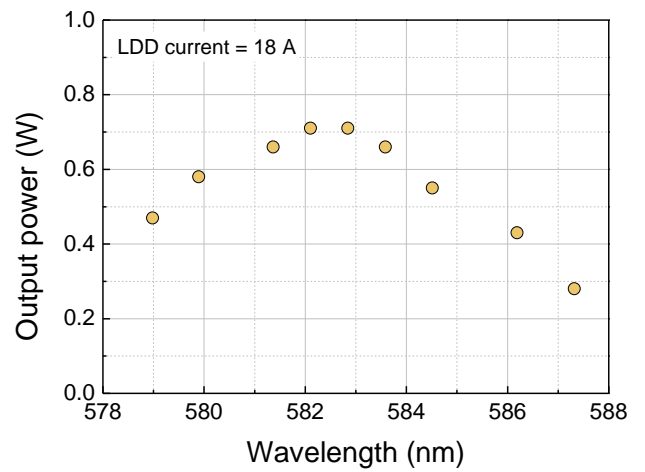


Figure 2. Tuning with birefringent filter rotation

