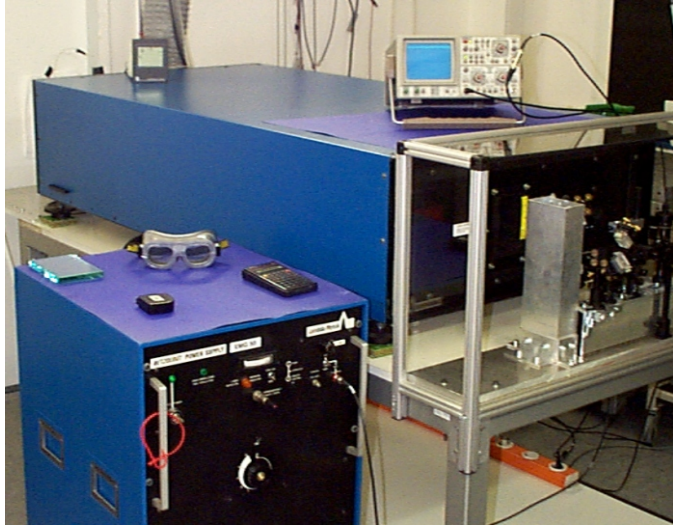
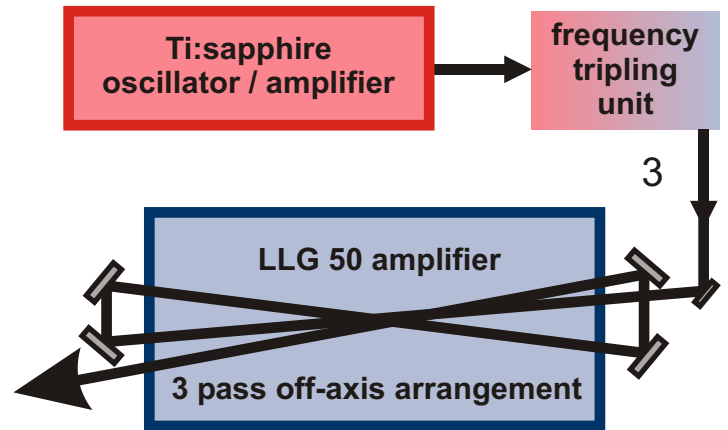


LLG 50 - UV Ultrafast Amplifier



Possible system configuration



The laser system

A UV ultrafast laser system comprises a front-end (e.g. Ti:sapphire laser) system whose pulses are shifted into the UV spectral range by frequency upconversion, and a special excimer gain module (LLG 50) for amplification in the UV. In this way high energy sub-picosecond pulses are obtained at 248 nm.

Specifications

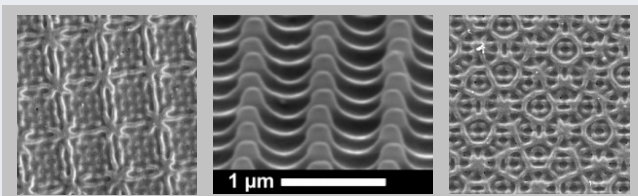
Wavelength	248 nm
Pulse length	~ 500 fs
Rep-rate	0 - 10 Hz
Pulse energy	~ 50 mJ

Applications

Materials processing

- Ultrashort pulse duration
- Short (UV) wavelength

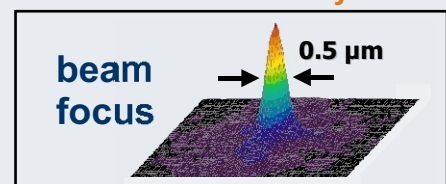
unprecedented
materials processing quality



Plasma / X-ray generation

- High pulse contrast (10^{10})
- High Strehl-ratio

$>10^{19}$ W/cm²
focused intensity



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