

FEMTOKITS FOR THIRD HARMONIC GENERATION OF FEMTOSECOND Ti:Sapphire LASER

Kits consist of set of components required for efficient third harmonic generation of femtosecond Ti:Sapphire laser. The schemes of the third harmonic generation in basic and extended Femtokits are presented below.

BASIC FEMTOKIT FK SERIES

The thickness of SHG BBO crystal, THG BBO crystal and group delay compensation plate is different in each kit and is optimal for certain pulse duration of fundamental harmonic to avoid harmonic pulses broadening.

Basic Femtokit FK series includes:

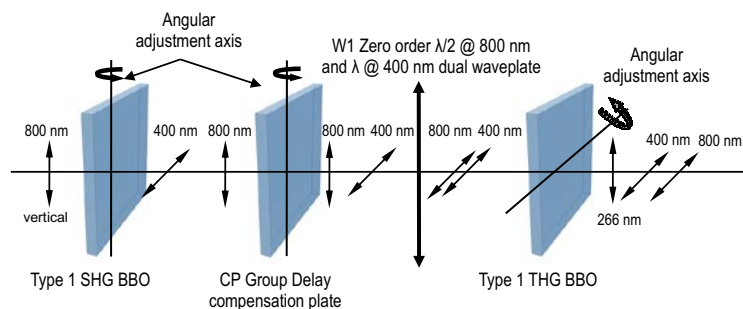
- Type 1 SHG BBO crystal with 6×6 mm aperture, P-coated @ 400-800 nm,
- Type 1 THG BBO crystal with 6×6 mm aperture, P-coated @ 400-800/266 nm,
- Calcite plate for group velocity delay compensation CP, AR coated @ 800+400 nm,
- Zero order dual waveplate W1, optically contacted, AR coated @ 800+400 nm,
- All above four components are mounted in to 1 inch ring holders for convenient handling.

Fundamental pulse duration	Basic FemtoKit FK Series		Basic Mounted FemtoKit FK Series	
	Catalogue number	Price, EUR	Catalogue number	Price, EUR
150 – 250 fsec	FK-800-200	1710	FK-800-200-M	2758
120 – 150 fsec	FK-800-130	1760	FK-800-130-M	2808
70 – 120 fsec	FK-800-100	1760	FK-800-100-M	2808
30 – 70 fsec	FK-800-050	2268	FK-800-050-M	3316
15 – 30 fsec	FK-800-020	2340	FK-800-020-M	3388

Non-standard kits with larger apertures of BBO crystals and thicknesses optimal for other pulse durations are available on request.



Mounted Femtokit FK Series



EXTENDED FEMTOKIT FKE SERIES

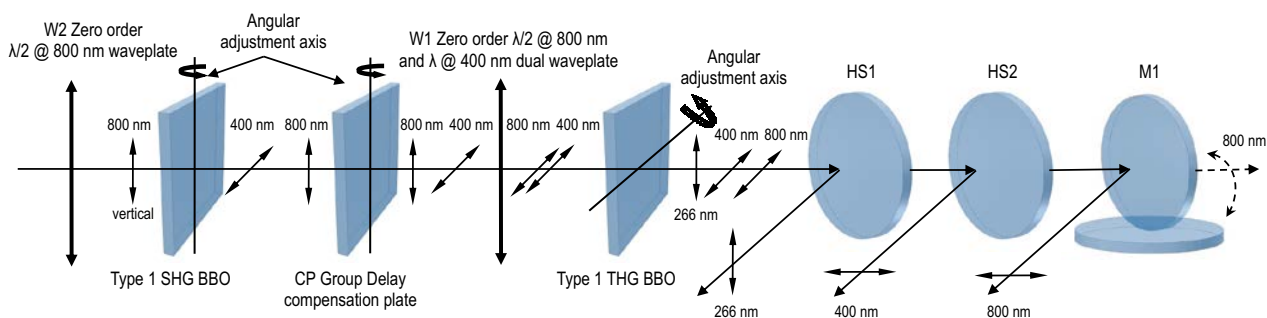
Up to 50% SHG conversion efficiency which was achieved in 0.5 mm SHG BBO crystal with Ti:Sapphire Super Spitfire laser operating at 1 kHz, 130 fs, 20-100 μ J @ 800 nm and effective beam diameter 0.9 mm. THG efficiency was reached up to 8% from fundamental using FKE-800-100 Femtokit.

Extended Femtokit FKE series includes:

- All components from basic kit,
- Additional zero order waveplate W2, optically contacted, AR coated @ 800 nm,
- Harmonic Separator HS1 HR @ 266 nm and HT @ 800+400 nm at AOI=45 deg,
- Harmonic Separator HS2 HR @ 400 nm and HT @ 800 nm at AOI=45 deg,
- Laser mirror M1, HR at 800 nm at AOI=45 deg.

Fundamental pulse duration	Extended FemtoKit FKE Series		Extended Mounted FemtoKit FKE Series	
	Catalogue number	Price, EUR	Catalogue number	Price, EUR
150 – 250 fsec	FKE-800-200	2402	FKE-800-200-M	4282
120 – 150 fsec	FKE-800-130	2452	FKE-800-130-M	4332
70 – 120 fsec	FKE-800-100	2452	FKE-800-100-M	4332
30 – 70 fsec	FKE-800-050	2960	FKE-800-050-M	4840
15 – 30 fsec	FKE-800-020	3032	FKE-800-020-M	4912

Non-standard kits with larger apertures of BBO crystals and thicknesses optimal for other pulse durations are available on request.



Extended Mounted Femtokit FKE Series