

iNOPA™

Non-Collinear Optical Parametric Amplifier



- **Optimized to be pumped by the Clark-MXR Model IMPULSE™ Yb-doped Fiber Oscillator/Amplifier**
- **Pulses as short as 14 fs¹**
- **Near TEM₀₀ output mode**
- **Compact, user-friendly design**
- **White light continuum-seeded for high stability**

iNOPA™ is a white light continuum-seeded, non-collinear, optical parametric amplifier capable of generating extremely short pulses when pumped by the Clark-MXR, Inc. Model IMPULSE™ Yb-doped Fiber Oscillator/Amplifier. To generate short pulses the output beam of the Model IMPULSE laser is split into two beams inside the Model iNOPA enclosure. One beam is used to generate an extremely broad continuum seed beam which is then amplified by the second, higher intensity beam from IMPULSE™ in a BBO crystal operated in a non-collinear arrangement. Non-

collinear amplification preserves the very broad linewidth of the seed beam, which can then be compressed to a pulsewidth as short as 15 fs in a prism compressor. Non-collinear amplification is preferred since the resulting pulsewidth is dependent only on the bandwidth of the seed and not on the pulsewidth of the pump laser. In fact, conversion efficiency is improved by having a longer, rather than shorter, pump pulse because there is more overlap in time between the two beams.

Specifications when pumped with 10 uJ/pulse from a Model IMPULSE™

- Pulsewidth: < 40 fs (deconvolved)
- Repetition Rate: 1 MHz (other repetition rates available as options)
- Tuning range: 650 nm to 950 nm and 1100 nm to > 1300 nm (other tuning ranges available options)
- Pulse energy: > 250 nJ/pulse at peak of tuning range
- Noise: < 1 % rms for f > 2 Hz
- Polarization: Linear, horizontal

General

Size: 15"W x 32.5"L x 9"H
Electrical/Water: None

Please contact us for more information.

¹Christian Schriever, Stefan Lochbrunner, Patrizia Krok, and Eberhard Riedle; *Tunable pulses from below 300 to 970 nm with durations down to 14 fs based on a 2 MHz ytterbium-doped fiber system*, OPTICS LETTERS / Vol. 33, No. 2 / January 15, 2008



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For more details, please visit our web site at <http://www.cmxr.com>.



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