



Supercontinuum generation using an ultrafast fibre laser

Chromacity Ltd report that the excellent coupling efficiency and high stability of its **Model 1040 ultrafast fibre laser** enables it to generate **exceptionally broad and flat supercontinua** in the near infrared region (750-1300 nm).



Image caption: A: Model 1040 ultrafast fibre laser

This compact and easy to use laser

provides an ideal source to generate a cost-effective near-infrared supercontinuum by focusing ultrashort pulses into non-linear materials, such as photonic crystal fibres. Unlike solid-state lasers, which tend to produce beams with an elliptical cross section, the output from a Chromacity 1040 laser originates from a single-mode fibre, so it is perfectly symmetric and can be coupled into photonic-crystal fibres with efficiencies of greater than 75%.

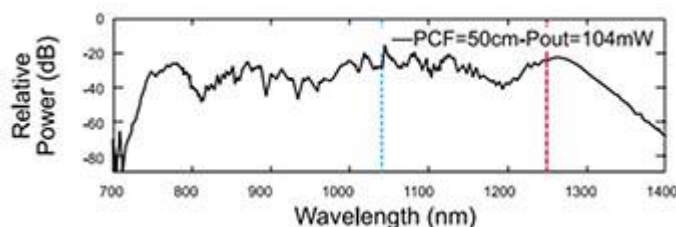


Image caption B: Near IR supercontinuum generated using a Model 1040 ultrafast fibre laser (courtesy: Chromacity Ltd).



In a technical note,

the authors discuss how to implement supercontinuum generation in non-linear fibres to provide a cost-effective means of producing broadband near-infrared light for spectroscopy, optical coherence tomography, CARS spectroscopy / microscopy and other applications.

For a copy

of the technical note please visit <https://shorturl.at/djXah>. The Model 1040 is a fixed wavelength femtosecond laser source that delivers ultrashort pulses with high average powers in the near infrared. For further information on the Chromacity 1040 laser please visit <https://chromacitylasers.com/ultrafast-lasers/chromacity-1040/> or contact Chromacity Ltd. on +44-131-449-4308 / sales@chromacitylasers.com.

Chromacity Ltd.

is a world leader in the design, development, and manufacturing of advanced ultrafast pulsed fibre lasers. Based in Edinburgh, UK, the company specialises in fixed wavelength femtosecond and picosecond optical parametric oscillator (OPO) based tuneable laser systems. Based on a novel patented laser architecture that delivers ultra stable long-term performance, the fixed wavelength femtosecond fibre lasers work at 1040nm and 920nm, and the tuneable picosecond OPO lasers work across the near infra-red and mid infra-red wavelengths from 1.4um to 12um. Lasers from Chromacity Ltd. are simple to use, with no specialist support required to operate them – you turn them on, configure and use. These compact, air-cooled devices offer unrivalled long term pulse stability without the need for on-going maintenance.

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