Compact Tunable Ultraviolet Lasers

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Background

We have developed a compact relatively inexpensive tunable ultraviolet laser specifically for biophotonics applications. The laser is tunable in the 280 -338 nm spectral range, suitable for excitation of UV autofluorescence. The laser is an add-on to a compact fixed wavelength 266 nm microchip laser, allowing broad tunability in the UV.

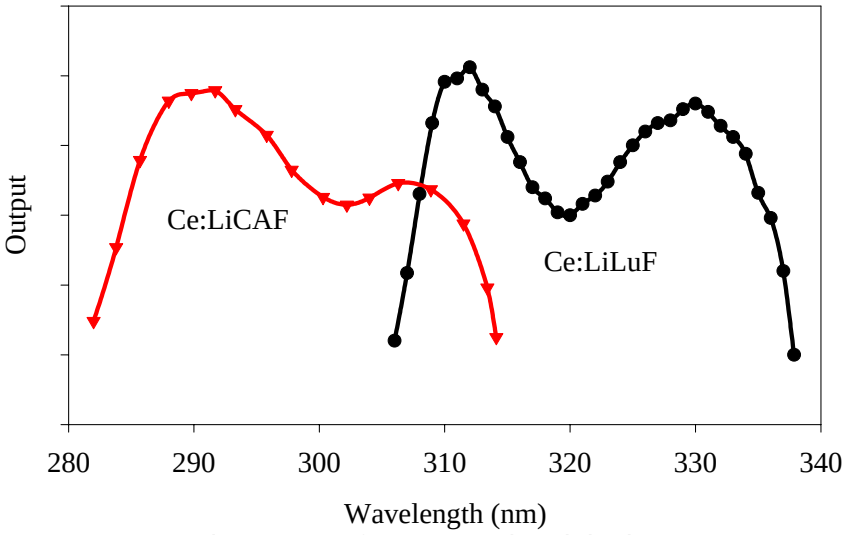
Outcomes:

- Compact tunable UV laser suitable for fluorescence excitation.
- Avoid labeling requirements by employing autofluorescence.
- Applications in photochemistry eg. DNA to protein cross linking.

Progress to date.

- The laser has been constructed as a bench top device.
- Average power typically 1 mW, 1-2 kHz pulse rate. Higher pulse rates possible.
- We are presently packaging the laser to allow it to be fixed to microscopes.

Compact laser



Tuning range of compact ultraviolet laser.

Funding is sought to

- Commercialise the laser technology –develop commercial prototype.
- Study UV autofluorescence detection, cross linking and other biophotonics applications.

Contact details

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