

Application Note

Fluorescence based Multicolor Analysis using one Excitation Wavelength

Lasers from LASOS Lasertechnik and the dyes of DYOMICS are an ideal combination when it comes to multicolor fluorescence excitation. With the variety of excitation wavelengths provided by LASOS and the broad range of dyes manufactured by DYOMICS the customer has the choice from a huge portfolio of options which can be tailored to his particular application whether it is in bioimaging, analysis or material research.

New possibilities are opened by using lasers in the violet or UV range. Excitation at shorter wavelengths allows the collection of a higher number of emission signals generated by fluorescent agents using only one laser source.



Excitation of multiple fluorophores by using a single 405 nm diode laser module of the LASOS[®] LDM laser series

LASOS provides high performance laser diode modules at 405 nm which are suitable for multicolor excitation. Even higher flexibility and efficiency is possible by using a laser emitting in the UV range. The choice of suitable laser sources available on the market is very small. Especially, there is no compact and easy to use laser module available with a wavelength less than 355 nm. LASOS currently develops a compact diode-pumped solid-state laser emitting several milliwatt of output power at 320 nm. This laser has been proven to be very well suited for multiplex excitation providing the possibility of highly efficient, cost effective and time saving solutions for a variety of applications.



Compact diode-pumped solid-state laser emitting at 320 nm