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(54) Title: A DUAL WAVELENGTH OPTICAL ANALYSER

(57) Abstract: An optical device for directing optical signals in a fluorescence-based analyser having first and second laser light sources for providing illuminating laser light at different wavelengths. The device comprises a band pass laser filter associated with each laser and arranged to allow laser light of the relevant wavelength of its associated laser to pass therethrough but to reflect light of other wavelengths, each band pass filter being arranged to direct laser light from both of the lasers into a single path directed at a sample to be illuminated in use. At least two fluorescence band pass filters are provided, each of which is arranged to allow light of a selected fluorescent wavelenght therethrough. The laser band pass filters are arranged to reflect fluorescent light received from the sample towards the fluorescence filters such that, in use, light received from the sample is allowed to pass through a first of the fluorescence filters if it is at a first wavelength, and through the second of the fluorescence filters if it is at a second wavelength to provide an output signals for analysis at the output of each of the fluorescence.