

Appendix A

Spectral range of the optics, sources and detectors used in the setup

This appendix presents the spectral ranges of the different optics, detectors and sources used in the setup. The combined spectral ranges of all the elements that compose the instrument determine its spectral range. Information concerning the beamsplitter and one of the dichroic mirrors are absent of the appendix because no reliable source was found. However, it is known that the beamsplitter is optimized to work in the visible range and that the dichroic mirror correctly fulfill its task.

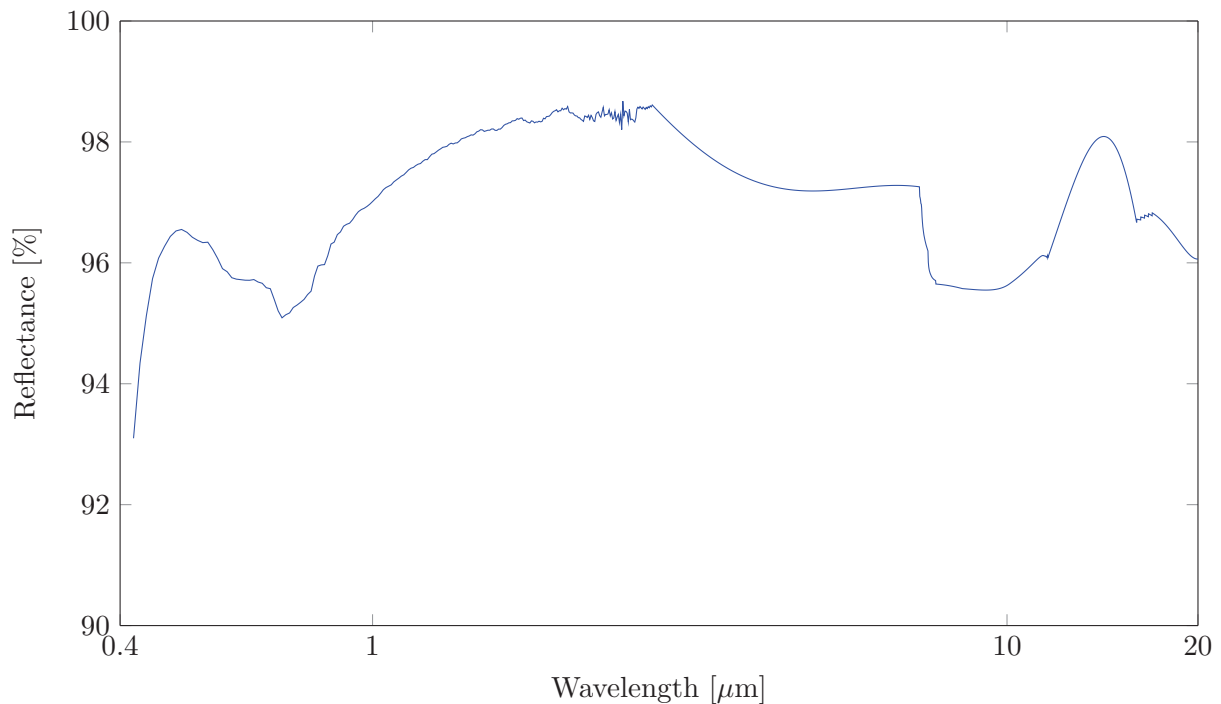


Figure A.1: Reflectance of P01 silver mirrors for unpolarized light at a 45-degree angle of incidence. Raw data are available on the THORLABS website.

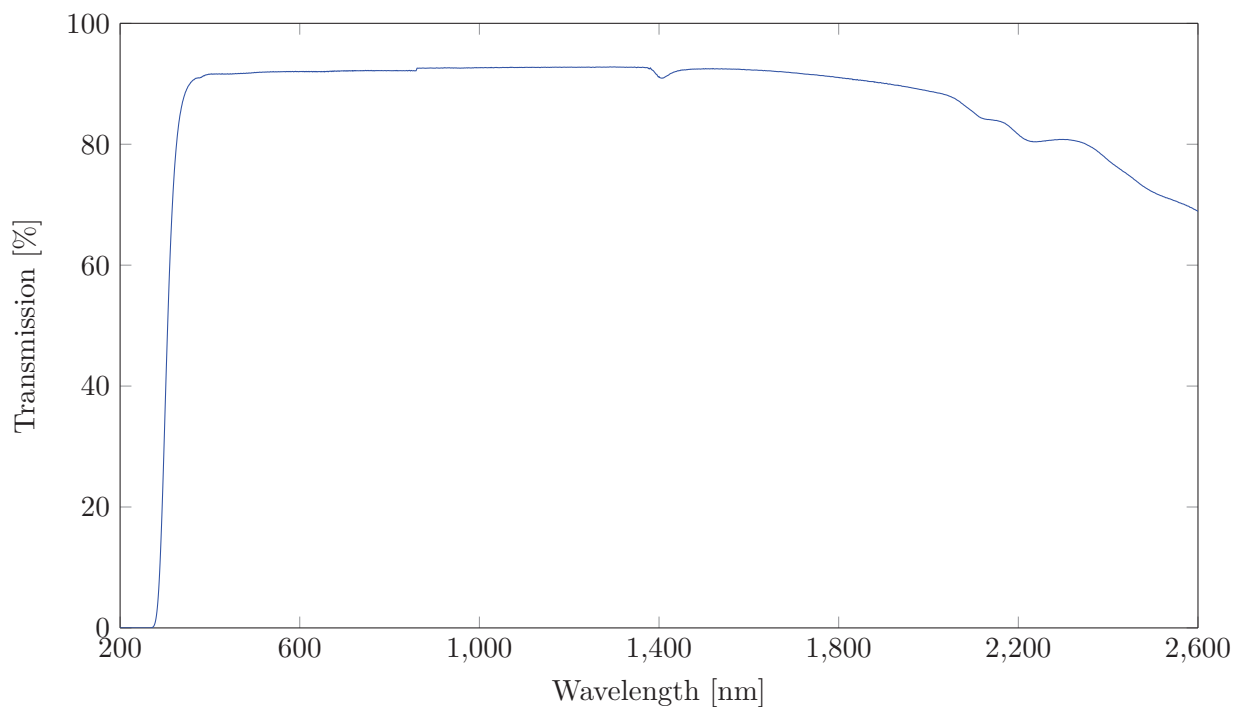


Figure A.2: Transmission coefficient of a 1 cm thick sample of uncoated N-BK7 glass. Raw data are available on the THORLABS website.

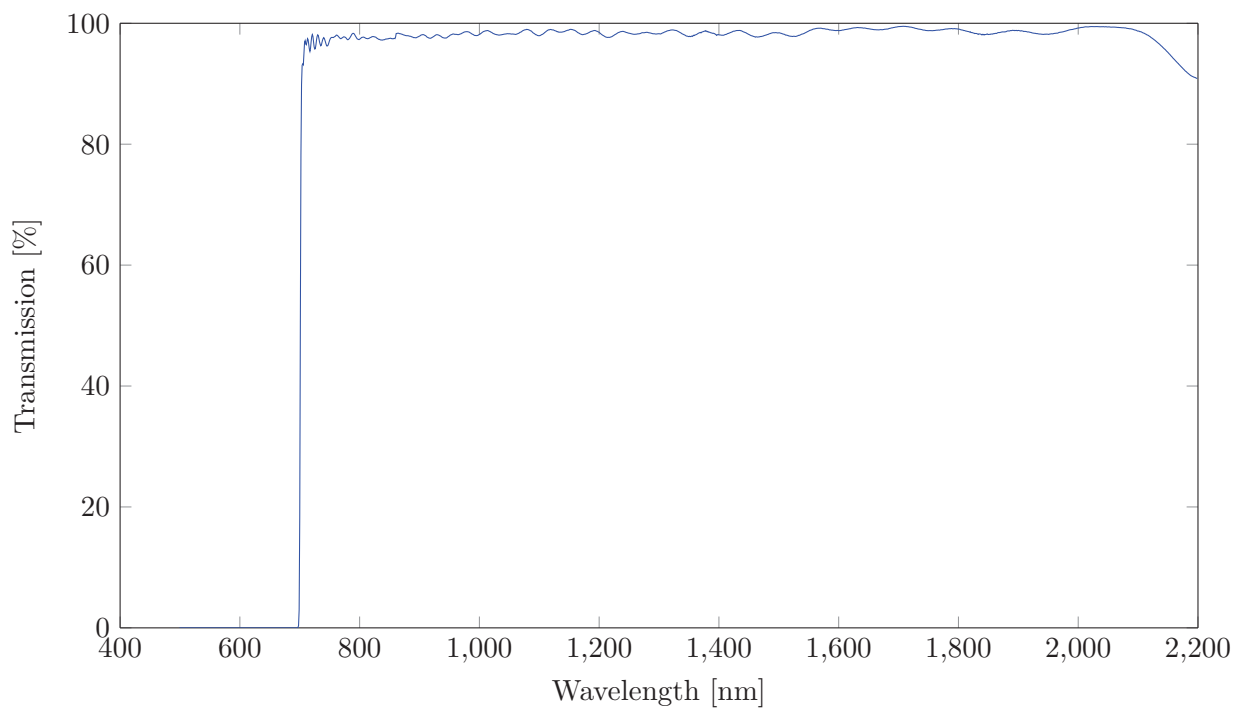


Figure A.3: Transmission of the high-performance edgepass filter with a cut-on wavelength of 700 nm. Model FELH0700 of THORLABS. Raw data are available on the THORLABS website.

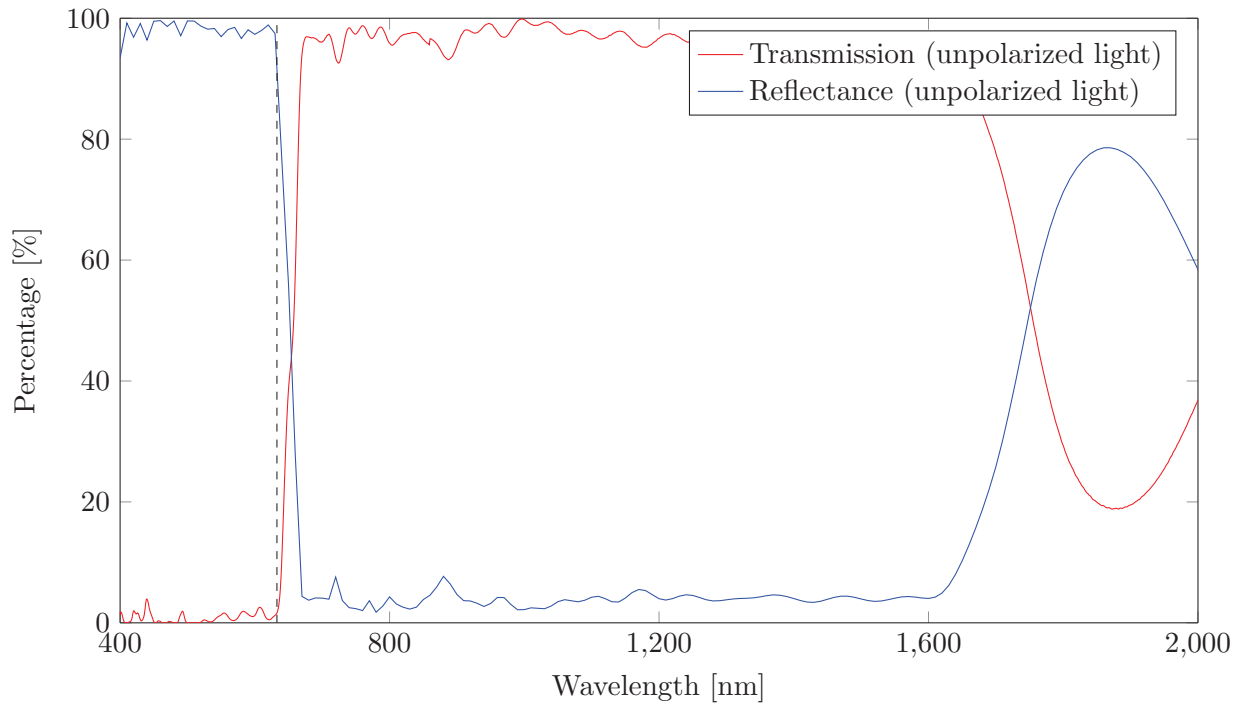


Figure A.4: Longpass dichroic mirror with a cutoff wavelength of 650 nm for unpolarized light at a 45-degree angle of incidence. Model DMLP650 of THORLABS. The vertical dashed line indicates the emission wavelength of the He:Ne laser. Raw data are available on the THORLABS website.

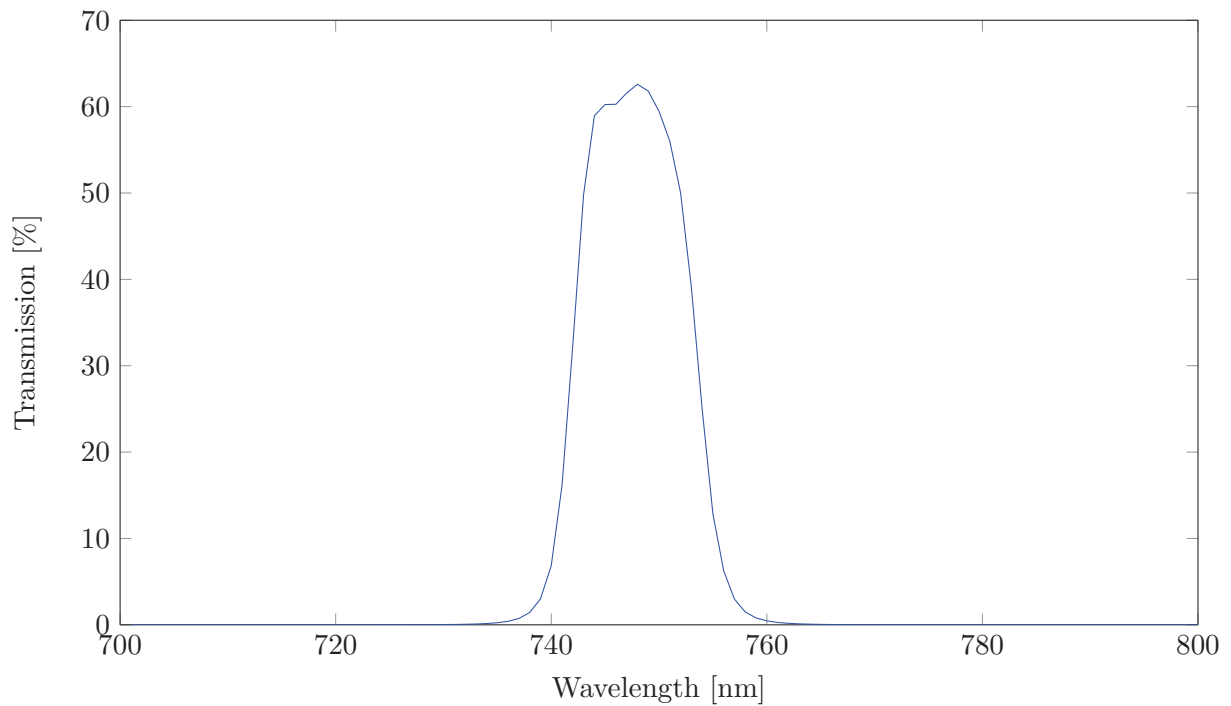


Figure A.5: Bandpass filter with a center wavelength equal to 750 nm \pm 2 nm and a full width at half maximum of 10 nm \pm 2 nm. Model FB750-10 of THORLABS. Raw data are available on the THORLABS website.

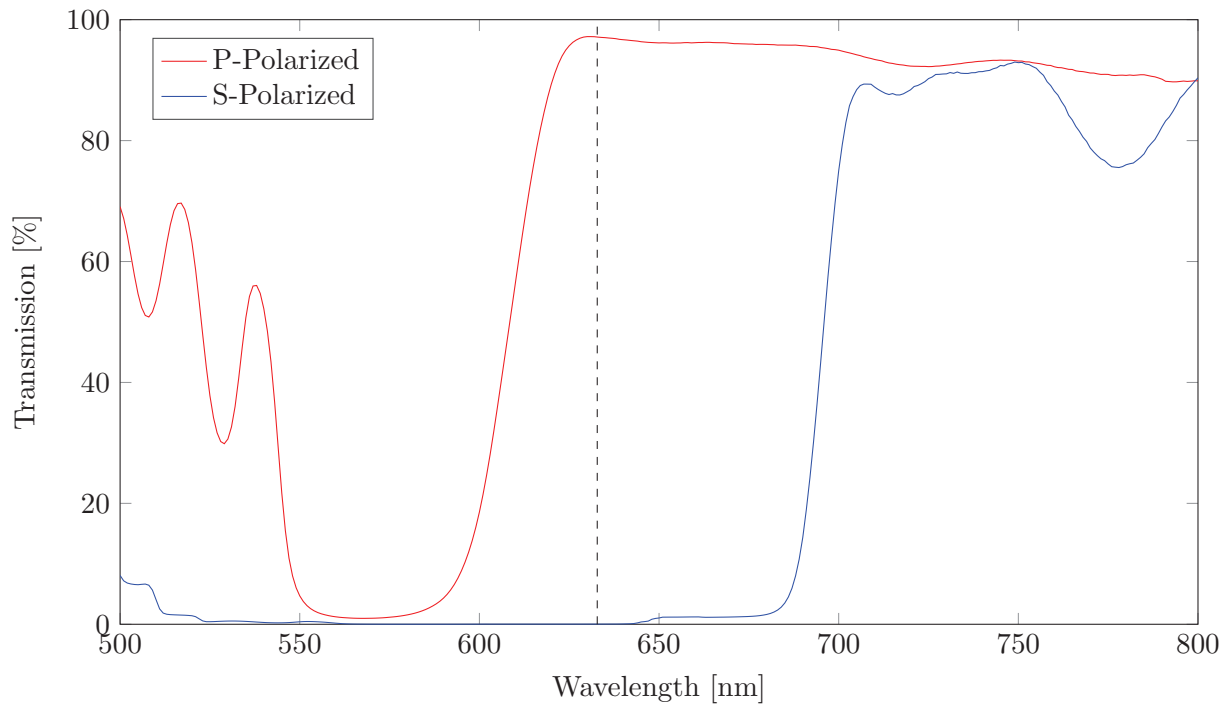


Figure A.6: He:Ne laser line polarizing beamsplitter cube. The S-polarization is reflected by 90 degrees. Model CCM1-PBS25-633/M of THORLABS. The vertical dashed line indicates the emission wavelength of the He:Ne laser. Raw data are available on the THORLABS website.

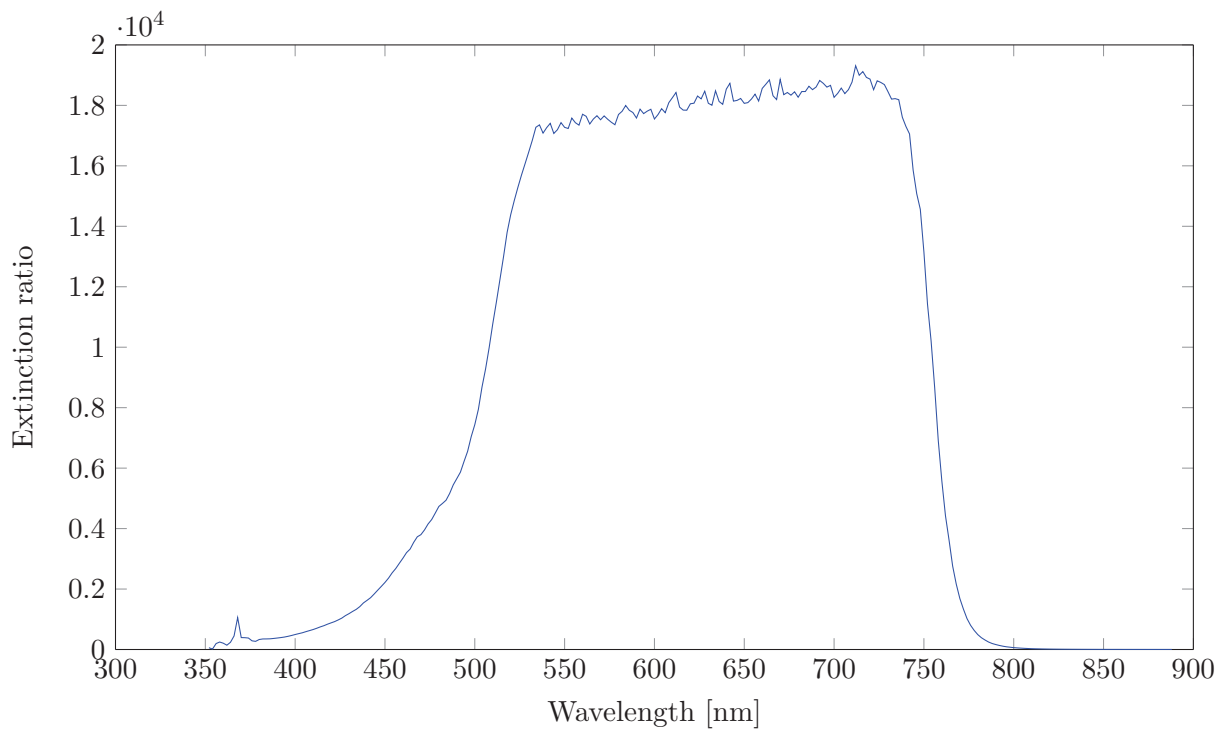


Figure A.7: Extinction ratio of the 400-700 nm economy film linear polarizer. Model LPVISE100-A of THORLABS. Raw data are available on the THORLABS website.

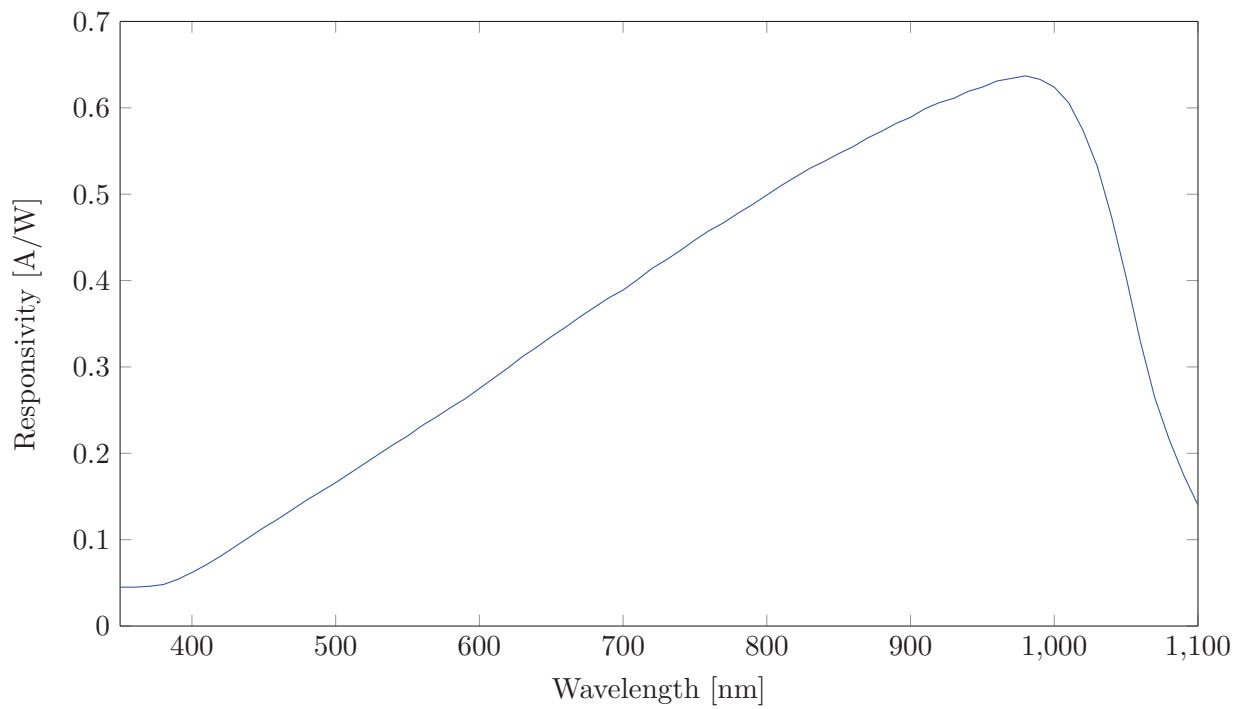


Figure A.8: Responsivity of the Si transimpedance amplified photodetector with respect to the wavelength. Model PDA36A-EC of THORLABS. Raw data are available on the THORLABS website.

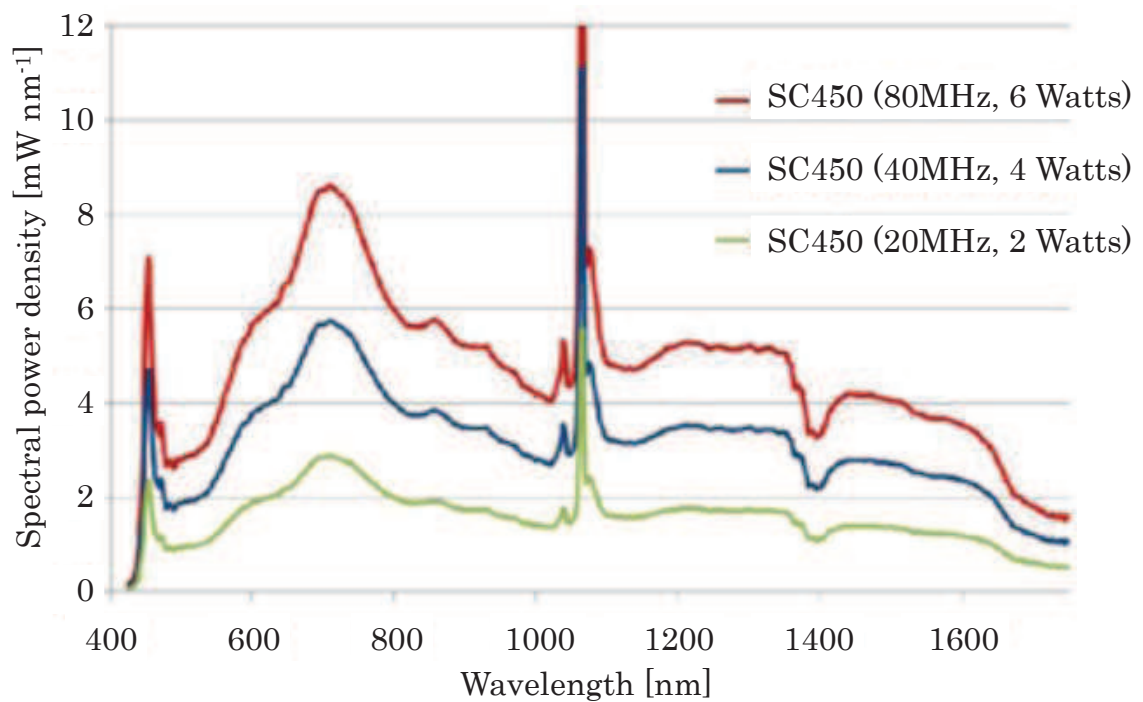


Figure A.9: Spectral power density of the FIANIUM SC450-4 supercontinuum source (blue curve). From Ref. [18].