

Fig. 1: Schematic view of the monolithic wavelength converter.

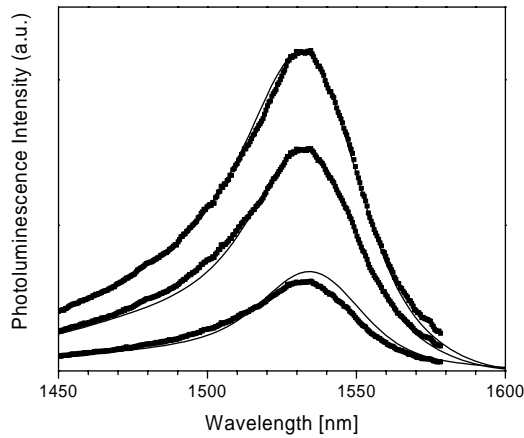


Fig. 2: PL spectra of our MQW active region (dots – measured at 1×, 2×, and 3× pump intensity; solid lines - many-body calculations at carrier densities of 3.8 , 6.2 , and $7.7 \times 10^{17} \text{ cm}^{-3}$).

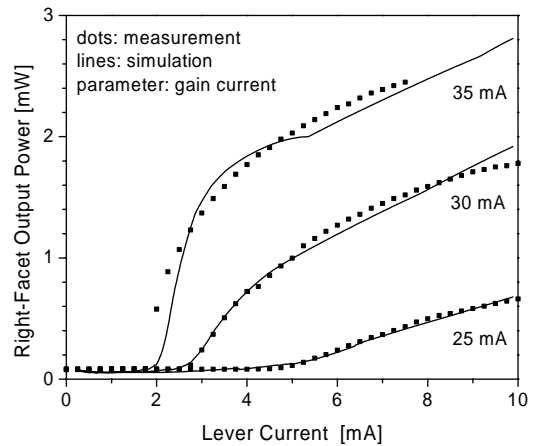


Fig. 3: Sampled-grating DBR laser characteristics with post-amplifier current of 30 mA. The gain section is divided into a constant pump region (parameter) and a lever region that is connected to the photodetector (cf. Fig. 1).