285 nm-Laser (S-MOT)

FLPM RMU CCT 1.1.0.0

- Laser Enable: push “on”
- Output Power: change “Power Setpoint”
  - 0.500 W for Iode spectroscopy fiber coupling
  - 2 - 2.500 W for 285 nm-SHG-Lock
- Seedpower: ~ 20 mW

Edit any other values!

DigiLock-Module Server

1. S-MOT-Laser connected
2. start “DigiLock - SN 01265 - S-MOT-Laser”: double click of S-MOT-Laser
   1. push “Scan on”
   2. push “AutoLock”
   3. change the “Offset Value” to 0 V
   4. change the “Setpoint” (under “AutoLock”) of max slop of the middle peak
   5. Push “PID: Lock to Slop”

Lasersystem - Typical power values

The system was build by Jan Friebe and is described in his diplomathesis.

570 nm-Laser

- Outputpower after cube to 285 nm-SHG: ~ 1.2 W @ 2.5 W
- Operationpower: < @ 3 W
- Max outpupower: ??? W @ ??? W

Iodine spectroscopy

- Infront fiber: ~ 38 mW @ 0.500 W
- After fiber: ~ 29 mW @ 0.500 W (= 400 mV @ 0.500 W) [efficiency ~ 70 %]

- Infront fiber: ~ 220 mW @ 2.500 W
- After fiber: ~ 160 mW @ 2.500 W (= 2 V @ 2.500 W) [efficiency ~ 70 %]

285 nm-SHG

- Outputpower: ~ ... mW @ 2.000 W
- Outputpower: ~ 100 mW @ 2.500 W
- Power for photodiode: ~ ... müW
- Stabilized power (infront AOM): **80 mW**
- Power infront the AOM in ... order: 80 mW
- Power behind the AOM: 43 mW @ 2.500 W (efficiency ~ 50 %)
- Power for the Zeaman-slower: ... mW
- Power behind the mystical mirrow: ... mW