# V46 - Faraday-Effekt

undotiert (hochrein), d = 5,11 mm | eventuell 90° abziehen

| Wellenlänge | br (Polung) | rb falsch | |
|---|---|---|---|
| 1,06 µm | ~~143°~~ 25' | 153° 50' | 167° 00' |
| 1,29 µm | 148° 00' | 155° 05' | 164° 00' |
| 1,45 µm | ~~151°~~ 148° 20' | 154° 25' | 160° 15' |
| 1,72 µm | 151° 00' | 155° 05' | ~~160° 00'~~ kein Probe |
| 1,96 µm | 157° 30' | 160° 30' | 164° 40' |
| 2156 nm | 159° 1~~0~~5' | 162° 00' | 169° ~~5~~ 45' |
| 2,34 µm | 182° 50' | 185° 30' | 187° 00' / 229° 00' |
| 2510 nm | 193° 30' | 215° 05' | 218° 35' |
| 2,65 µm | 239° 30' | 242° ~~30~~ 00' | 248° 15' |

GaAs (n-dot.) $N = 1,2 \cdot 10^{18}/cm^3$, d = 1,36 mm

| | | | |
|---|---|---|---|
| 1,06 µm | | 148° 20' | 158° 00' |
| 1,29 µm | | 150° 00' | 157° 20' |
| 1,45 µm | | 146° 35' | 154° 50' |
| 1,72 µm | | 149° 40' | 156° 15' |
| 1,96 µm | | 250° 35' | 161° 50' |
| 2156 nm | ≃ 100° | 249° 10' | 164° 10' |
| 2,34 µm | | 223° 20' | 191° 10' |
| 2510 nm | | 213° 10' | 203° 15' |
| 2,65 µm | | 239° 45' | 249° 40' |

C. Lücker

| n-dot. $N = 2{,}8 \cdot 10^{15}/cm^3$ $d = 1{,}296\,mm$ | br | | rb |
|---|---|---|---|
| 1,06 µm | 150° 10' | | 159° 30' |
| 1,29 µm | 150° 35' | | 157° 20' |
| 1,45 µm | 150° 10' | | 159° 00' |
| 1,72 µm | 149° 20' | | 161° 10' |
| 1,96 µm | 154° 25' | | 164° 30' |
| 2156 nm | 156° 15' | | 168° 00' |
| 2,34 µm | 176° 00' | 179° 05' | 191° 35' |
| 2510 nm | 178° 00' | 196° 10' | 203° 30' |
| 2,65 µm | 151° 00' | 158° 40' | 174° 45' |

↑ 10-fach verstärkt

Hall-Sonde

| Abstand (mm) | Wert (mT) | |
|---|---|---|
| 114 | 396 | Maximum |
| 115 | 395 | |
| 116 | 393 | |
| 117 | 386 | |
| 118 | 376 | |
| 119 | 364 | |
| 120 | 345 | |
| 121 | 323 | |
| 122 | 293 | |
| 123 | 262 | |
| 124 | 227 | |
| 125 | 190 | |
| 126 | 153 | |
| 1257 | 125 | |

C. Lüdeke

| | |
|---|---|
| 113 | 396 |
| 112 | 394 |
| 111 | 390 |
| 110 | 382 |
| 109 | 372 |
| 108 | 357 |
| 107 | 339 |
| 106 | 314 |
| 105 | 289 |
| 104 | 252 |
| 103 | 215 |
| 102 | 184 |
| 101 | 150 |
| 100 | 116 |

Winkel in Radiant

Winkel pro Probenlänge → $\frac{rad}{m}$

Brechungsindex recherchieren

$m_{eff}$ mit Literaturwert vergleichen

E-Mail wenn hochgeladen

C. Lüders