

V64: Interferometry

13.11.23

Measurement 1: Contrast

| $\theta / ^\circ$ | I_{\min} / V | I_{\max} / V | I_{\min} / V | I_{\max} / V | I_{\min} / V | I_{\max} / V |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 0 | 1,60 | 1,75 | 1,57 | 1,77 | 1,63 | 1,78 |
| 15 | 0,97 | 1,57 | 0,94 | 1,49 | 0,95 | 1,54 |
| 30 | 0,51 | 1,28 | 0,52 | 1,27 | 0,53 | 1,30 |
| 45 | 0,39 | 1,31 | 0,40 | 1,34 | 0,40 | 1,36 |
| 60 | 0,53 | 1,74 | 0,54 | 1,78 | 0,53 | 1,76 |
| 75 | 0,96 | 2,23 | 0,57 | 2,13 | 0,98 | 2,21 |
| 90 | 1,87 | 2,05 | 1,57 | 2,41 | 2,01 | 2,24 |
| 105 | 1,81 | 3,10 | 1,78 | 3,22 | 1,84 | 3,53 |
| 120 | 1,31 | 4,30 | 1,35 | 4,23 | 1,41 | 4,47 |
| 135 | 1,15 | 5,06 | 1,23 | 4,78 | 1,21 | 5,05 |
| 150 | 1,39 | 4,44 | 1,44 | 4,32 | 1,47 | 4,54 |
| 165 | 1,65 | 3,16 | 1,65 | 3,19 | 1,73 | 3,33 |
| 180 | 1,66 | 1,87 | 1,64 | 1,82 | 1,80 | 2,01 |

Measurement 2: Refractive Index of glass

| $\theta / ^\circ$ | M | M | M | M | M | M |
|-------------------|---------------|----|----|----|----|----|
| 2 | 6 | 6 | 6 | 6 | 6 | 5 |
| 4 | 11 | 12 | 13 | 12 | 13 | 12 |
| 6 | | 19 | 20 | 19 | 20 | 18 |
| 8 | | 25 | 26 | 25 | 26 | 24 |

~~Measurement 3: Refractive Index of air~~

| $\theta / ^\circ$ | M | M | M | M | M |
|-------------------|----|----|----|----|----|
| 2 | 6 | 6 | 6 | 7 | 6 |
| 4 | 12 | 12 | 12 | 13 | 12 |
| 6 | 19 | 18 | 20 | 20 | 19 |
| 8 | 25 | 25 | 26 | 26 | 25 |

Measurement 3: Refractive Index of air

| p/mbar | M | p/mbar | M | p/mbar | M |
|--------|----|--------|----|--------|----|
| 8 | 0 | 8 | 0 | 7 | 0 |
| 51 | 2 | 51 | 2 | 50 | 2 |
| 100 | 4 | 100 | 4 | 101 | 4 |
| 151 | 6 | 151 | 6 | 151 | 6 |
| 200 | 8 | 200 | 9 | 200 | 9 |
| 251 | 10 | 251 | 11 | 250 | 11 |
| 300 | 13 | 301 | 13 | 300 | 13 |
| 352 | 15 | 352 | 15 | 352 | 15 |
| 402 | 17 | 402 | 17 | 400 | 17 |
| 451 | 19 | 451 | 19 | 452 | 19 |
| 500 | 21 | 501 | 21 | 500 | 21 |
| 550 | 23 | 551 | 23 | 552 | 23 |
| 600 | 25 | 601 | 25 | 601 | 25 |
| 651 | 27 | 650 | 28 | 651 | 28 |
| 701 | 29 | 700 | 30 | 700 | 30 |
| 750 | 32 | 751 | 32 | 750 | 32 |
| 801 | 34 | 800 | 34 | 802 | 34 |
| 850 | 36 | 850 | 36 | 850 | 36 |
| 900 | 38 | 901 | 38 | 901 | 38 |
| 950 | 40 | 950 | 40 | 950 | 40 |
| 981 | 41 | 981 | 41 | 981 | 41 |

T = 22,2°C

| p/mbar | M | p/mbar | M |
|--------------|----|--------------|----|
| 8 | 0 | 7 | 0 |
| 51 | 2 | 50 | 2 |
| 101 | 4 | 101 | 4 |
| 151 | 7 | 152 | 6 |
| 201 | 9 | 202 | 9 |
| 251 | 11 | 252 | 11 |
| 303 | 13 | 300 | 13 |
| 351 | 15 | 352 | 15 |
| 400 | 17 | 400 | 17 |
| 450 | 19 | 451 | 19 |
| 502 | 21 | 501 | 21 |
| 552 | 23 | 551 | 23 |
| 602 | 25 | 600 | 25 |
| 651 | 27 | 650 | 27 |
| 701 | 30 | 700 | 30 |
| 751 | 32 | 750 | 32 |
| 801 | 34 | 801 | 34 |
| 850 | 36 | 851 | 36 |
| 900 | 38 | 900 | 38 |
| 950 | 40 | 950 | 40 |
| 981 | 41 | 981 | 41 |