|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | a (m) | 0.04 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| q | f (Hz) | f-exp | σf (Hz) | Rmax (A) | c (m/s) | c-exp | σc (m/s) | t-test |
| 1 | 4218.1 | 4294.875 | 4 | 4.0928E-12 | 337.448 | 343.59 | 0.32 | 19.19375 |
| 2 | 8582.1 | 8589.75 | 4 | 1.8304E-11 | 343.284 | 343.59 | 0.16 | 1.9125 |
| 3 | 12852 | 12884.625 | 4 | 3.0809E-11 | 342.72 | 343.59 | 0.106667 | 8.15625 |
| 4 | 17164 | 17179.5 | 4 | 7.3670E-11 | 343.28 | 343.59 | 0.08 | 3.875 |
|  |  |  |  | Avg | 341.683 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | a (m) | 0.04 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| q | f (Hz) | f-exp | σf (Hz) | Rmax (A) | c (m/s) | c-exp | σc (m/s) | t-test |
| 1 | 4301 | 4294.875 | 4 | 1.8190E-12 | 344.08 | 343.59 | 0.32 | 1.53125 |
| 2 | 8562 | 8589.75 | 4 | 1.6144E-11 | 342.48 | 343.59 | 0.16 | 6.9375 |
| 3 | 12836 | 12884.625 | 4 | 2.5921E-11 | 342.29333 | 343.59 | 0.106667 | 12.15625 |
| 4 | 17137 | 17179.5 | 4 | 6.5143E-11 | 342.74 | 343.59 | 0.08 | 10.625 |
|  |  |  |  | Avg | 342.89833 |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | a(m) | 0.04 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| q | f(Hz) | f-exp | σf (Hz) | Rmax (A) | c (m/s) | c-exp | σc (m/s) | t-test |
| 1 | 4405.6 | 4362.5 | 4 | 2.53E-12 | 352.448 | 349 | 0.32 | 10.775 |
| 2 | 8706.1 | 8725 | 4 | 1.58E-11 | 348.244 | 349 | 0.16 | 4.725 |
| 3 | 13002 | 13087.5 | 4 | 1.22E-11 | 346.72 | 349 | 0.106667 | 21.375 |
| 4 | 17424 | 17450 | 4 | 5.46E-11 | 348.48 | 349 | 0.08 | 6.5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | a(m) | 0.04 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| q | f(Hz) | f-exp | σf (Hz) | Rmax (A) | c (m/s) | c-exp | σc (m/s) | t-test |
| 1 | 12444 | 12587.5 | 8 | 9.37E-12 | 995.52 | 1007 | 0.64 | 17.9375 |
| 2 | 25232 | 25175 | 8 | 5.46E-11 | 1009.28 | 1007 | 0.32 | 7.125 |
| 3 | 48981 | 37762.5 | 8 | 5.41E-11 | 1306.16 | 1007 | 0.213333 | 1402.313 |

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| --- | --- | --- | --- | --- | --- |
|  |  | a(m) | 0.04 |  |  |
|  |  |  |  |  |  |
| q | f(Hz) | σf (Hz) | Rmax (A) | c (m/s) | σc (m/s) |
| 1 | 2220 | 5 | 1.84E-12 | 177.6 | 0.4 |
| 2 | 4445 | 5 | 8.05E-12 | 177.8 | 0.2 |
| 3 | 6655 | 5 | 1.42E-11 | 177.4667 | 0.133333 |
| 4 | 8890 | 5 | 3.10E-11 | 177.8 | 0.1 |

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| --- | --- | --- | --- | --- | --- | --- |
|  |  | a(m) | 0.04 |  |  |  |
|  |  |  |  |  |  |  |
| q | f(Hz) | σf (Hz) | Rmax (A) | c (m/s) | c-exp | σc (m/s) |
| 1 | 11000 | 5 | 5.28E-12 | 880 | 455.73 | 0.4 |
| 2 | 13525 | 5 | 2.09E-11 | 541 | 455.73 | 0.2 |
| 3 | 15700 | 5 | 4.22E-11 | 418.6667 | 455.73 | 0.133333 |
| 4 | 17900 | 5 | 5.03E-11 | 358 | 455.73 | 0.1 |

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| He 2.175K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8060 |  | 8.64E-12 | 6 |  | 0 |
| 8160.2 | 100.2 | 1.18E-11 | 6 | 8.016 | 0.005894 |
| 8250 | 89.8 | 1.09E-11 | 6 | 7.184 | 0.005225 |
| 8355.1 | 105.1 | 9.55E-12 | 6 | 8.408 | 0.006038 |
| 8445.2 | 90.1 | 9.55E-12 | 6 | 7.208 | 0.005121 |
| 8545 | 99.8 | 1.36E-11 | 6 | 7.984 | 0.005606 |
| 8630.1 | 85.1 | 1.46E-11 | 6 | 6.808 | 0.004733 |
| 8735.1 | 105 | 1.32E-11 | 6 | 8.400 | 0.00577 |
| 8825.1 | 90 | 1.46E-11 | 6 | 7.200 | 0.004895 |
| 8980.2 | 155.1 | 2.23E-11 | 6 | 12.408 | 0.00829 |
| 9130.3 | 150.1 | 2.09E-11 | 6 | 12.008 | 0.007891 |
|  |  |  | average: | 8.562 | 0.005406 |

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| --- | --- | --- | --- | --- | --- |
| He 2.15K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8015 |  | 2.73E-12 | 6 |  | 0 |
| 8170.1 | 155.1 | 1.05E-11 | 6 | 12.408 | 0.009112 |
| 8300.2 | 130.1 | 8.19E-12 | 6 | 10.408 | 0.007524 |
| 8440 | 139.8 | 1.23E-11 | 6 | 11.184 | 0.007951 |
| 8580 | 140 | 9.10E-12 | 6 | 11.200 | 0.007832 |
| 8750.1 | 170.1 | 1.32E-11 | 6 | 13.608 | 0.009331 |
| 8900 | 149.9 | 1.59E-11 | 6 | 11.992 | 0.008084 |
| 9039.9 | 139.9 | 1.73E-11 | 6 | 11.192 | 0.007428 |
| 9180 | 140.1 | 1.41E-11 | 6 | 11.208 | 0.007325 |
| 9345 | 165 | 9.55E-12 | 6 | 13.200 | 0.008475 |
| 9485 | 140 | 2.09E-11 | 6 | 11.200 | 0.007085 |
|  |  |  | average: | 11.760 | 0.007286 |

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| He 2.2K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8045.1 |  | 2.23E-11 | 6 |  | 0 |
| 8110.2 | 65.1 | 1.86E-11 | 6 | 5.208 | 0.003853 |
| 8180 | 69.8 | 1.73E-11 | 6 | 5.584 | 0.004096 |
| 8245 | 65 | 1.59E-11 | 6 | 5.200 | 0.003784 |
| 8320.2 | 75.2 | 1.27E-11 | 6 | 6.016 | 0.004338 |
| 8385 | 64.8 | 1.82E-11 | 6 | 5.184 | 0.003709 |
| 8450.1 | 65.1 | 1.82E-11 | 6 | 5.208 | 0.003698 |
| 8515.1 | 65 | 1.32E-11 | 6 | 5.200 | 0.003664 |
| 8595 | 79.9 | 1.46E-11 | 6 | 6.392 | 0.004462 |
| 8670 | 75 | 1.46E-11 | 6 | 6.000 | 0.004152 |
| 8745.1 | 75.1 | 1.77E-11 | 6 | 6.008 | 0.004122 |
|  |  |  | average: | 5.600 | 0.003625 |

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| --- | --- | --- | --- | --- | --- |
| He 2.22K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8040 |  | 3.64E-12 | 6 |  | 0 |
| 8075.1 | 35.1 | 3.64E-12 | 6 | 2.808 | 0.002086 |
| 8105.1 | 30 | 3.64E-12 | 6 | 2.400 | 0.001777 |
| 8145 | 39.9 | 3.64E-12 | 6 | 3.192 | 0.002351 |
| 8180 | 35 | 4.09E-12 | 6 | 2.800 | 0.002054 |
| 8234.9 | 54.9 | 4.09E-12 | 6 | 4.392 | 0.0032 |
| 8315 | 80.1 | 4.09E-12 | 6 | 6.408 | 0.004624 |
| 8355.1 | 40.1 | 4.09E-12 | 6 | 3.208 | 0.002304 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  | average: | 3.601 | 0.002299 |

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| --- | --- | --- | --- | --- | --- |
| He 2K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8115.1 |  | 8.19E-12 | 6 |  | 0 |
| 8330.1 | 215 | 1.18E-11 | 6 | 17.200 | 0.012389 |
| 8570.1 | 240 | 2.36E-11 | 6 | 19.200 | 0.013442 |
| 8710.1 | 140 | 5.46E-11 | 6 | 11.200 | 0.007715 |
| 8965.1 | 255 | 5.55E-11 | 6 | 20.400 | 0.013653 |
| 9210 | 244.9 | 6.18E-11 | 6 | 19.592 | 0.012764 |
| 9460.1 | 250.1 | 6.28E-11 | 6 | 20.008 | 0.01269 |
| 9710.2 | 250.1 | 7.73E-11 | 6 | 20.008 | 0.012363 |
| 9960.1 | 249.9 | 8.73E-11 | 6 | 19.992 | 0.012043 |
| 10205 | 244.9 | 6.73E-11 | 6 | 19.592 | 0.011519 |
|  |  |  | average: | 18.577 | 0.010858 |

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| He 1.6K |  |  |  |  |  |
| f (Hz) | df | Rmax (A) | σf (Hz) | c (m/s) | σc (m/s) |
| 8215.2 |  | 3.91E-11 | 6 |  | 0 |
| 8475 | 259.8 | 3.46E-11 | 6 | 20.784 | 0.014714 |
| 8715 | 240 | 5.73E-11 | 6 | 19.200 | 0.013219 |
| 8965.1 | 250.1 | 5.55E-11 | 6 | 20.008 | 0.013391 |
| 9210 | 244.9 | 6.18E-11 | 6 | 19.592 | 0.012764 |
| 9460.1 | 250.1 | 6.28E-11 | 6 | 20.008 | 0.01269 |
| 9710.2 | 250.1 | 7.73E-11 | 6 | 20.008 | 0.012363 |
| 9960.1 | 249.9 | 8.73E-11 | 6 | 19.992 | 0.012043 |
| 10205 | 244.9 | 6.73E-11 | 6 | 19.592 | 0.011519 |
| 10465 | 260 | 8.19E-11 | 6 | 20.800 | 0.011925 |
| 10705 | 240 | 1.01E-10 | 6 | 19.200 | 0.010761 |
|  |  |  | average: | 19.918 | 0.011399 |

|  |  |
| --- | --- |
| T | Avg c |
| 1.6 | 19.918 |
| 2 | 18.577 |
| 2.15 | 11.760 |
| 2.175 | 8.562 |
| 2.2 | 5.600 |
| 2.22 | 3.601 |