Data of derivative  with respect to *T*

(Figure 10 in the manuscript)

1 *NaNO*3

|  |  |  |  |
| --- | --- | --- | --- |
| *T*, K | *λ*, W/(m⋅K) | ,  10-5 W/(m⋅K2) | Ref. |
| 593.15 | 0.510 | 7.428 | [10] |
| 593.15 | 0.514 | 7.428 |
| 598.15 | 0.510 | 7.357 |
| 614.15 | 0.516 | 7.137 |
| 629.15 | 0.512 | 6.941 |
| 635.15 | 0.514 | 6.865 |
| 637.65 | 0.511 | 6.834 |
| 649.15 | 0.516 | 6.694 |
| 666.15 | 0.512 | 6.496 |
| 672.85 | 0.506 | 6.421 |

2 *KNO*3

|  |  |  |  |
| --- | --- | --- | --- |
| *T*, K | *λ*, W/(m⋅K) | ,  10-5 W/(m⋅K2) | Ref. |
| 616.75 | 0.422 | 25.47 | [10] |
| 629.15 | 0.416 | 24.85 |
| 655.15 | 0.423 | 23.61 |
| 681.15 | 0.420 | 22.48 |
| 700.15 | 0.420 | 21.70 |

4 *KCl*

|  |  |  |  |
| --- | --- | --- | --- |
| *T*, K | *λ*, W/(m⋅K) | ,  10-5 W/(m⋅K2) | Ref. |
| 1076.15 | 0.3248 | 0.5919 | [31] |
| 1147.69 | 0.3384 | 0.5047 |
| 1205.88 | 0.3330 | 0.4434 |
| 1303.17 | 0.3289 | 0.3563 |