1071 分光仪调整及其应用实验 数据处理报告模板

实验一：反射法测三棱镜内角

原始数据记录：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | AB面 | | AC面 | |
| 序号 |  |  |  |  |
| 1 | #s111a1# | #s111b1# | #s111a2# | #s111b2# |
| 2 | #s112a1# | #s112b1# | #s112a2# | #s112b2# |
| 3 | #s113a1# | #s113b1# | #s113a2# | #s113b2# |
| 4 | #s114a1# | #s114b1# | #s114a2# | #s114b2# |
| 5 | #s115a1# | #s115b1# | #s115a2# | #s115b2# |
| 6 | #s116a1# | #s116b1# | #s116a2# | #s116b2# |
| 7 | #s117a1# | #s117b1# | #s117a2# | #s117b2# |
| 8 | #s118a1# | #s118b1# | #s118a2# | #s118b2# |
| 9 | #s119a1# | #s119b1# | #s119a2# | #s119b2# |
| 10 | #s1110a1# | #s1110b1# | #s1110a2# | #s1110b2# |

数据处理：

由计算A，若A<0，则A=A+90°。然后转换成以度（°）为单位

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 1 | 2 | 3 | 4 | 5 |
| A（°） | #s121# | #s122# | #s123# | #s124# | #s125# |
| 序号 | 6 | 7 | 8 | 9 | 10 |
| A（°） | #s126# | #s127# | #s128# | #s129# | #s1210# |

顶角的计算：

=#s12calcu\_A#°

不确定度计算：

#s12ua\_A#°

#s12ub\_A#°

#s12u\_A#°

最终结果：

#s12final\_A#°

实验二：最小偏向角测棱镜折射率

原始数据记录：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | AB面 | | AC面 | |
| 序号 |  |  |  |  |
| 1 | #s211a1# | #s211b1# | #s211a2# | #s211b2# |
| 2 | #s212a1# | #s212b1# | #s212a2# | #s212b2# |
| 3 | #s213a1# | #s213b1# | #s213a2# | #s213b2# |
| 4 | #s214a1# | #s214b1# | #s214a2# | #s214b2# |
| 5 | #s215a1# | #s215b1# | #s215a2# | #s215b2# |
| 6 | #s216a1# | #s216b1# | #s216a2# | #s216b2# |
| 7 | #s217a1# | #s217b1# | #s217a2# | #s217b2# |
| 8 | #s218a1# | #s218b1# | #s218a2# | #s218b2# |
| 9 | #s219a1# | #s219b1# | #s219a2# | #s219b2# |
| 10 | #s2110a1# | #s2110b1# | #s2110a2# | #s2110b2# |

数据处理：

由计算，若，则°

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 1 | 2 | 3 | 4 | 5 |
| （°） | #s221# | #s222# | #s223# | #s224# | #s225# |
| 序号 | 6 | 7 | 8 | 9 | 10 |
| （°） | #s226# | #s227# | #s228# | #s229# | #s2210# |

顶角的计算：

=#s22calcu\_delta\_m#°

取A=#s12calcu\_A#°

#s22calcu\_n#

不确定度计算：

#s22ua\_delta\_m#°

#s22ub\_delta\_m#°

#s22u\_delta\_m#°

#s22u\_n#

最终结果：

#s22final\_n#

实验三：掠入射法测折射率

原始数据记录：

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 分界线 | | 法线 | |
| 序号 |  |  |  |  |
| 1 | #s311a1# | #s311b1# | #s311a2# | #s311b2# |
| 2 | #s312a1# | #s312b1# | #s312a2# | #s312b2# |
| 3 | #s313a1# | #s313b1# | #s313a2# | #s313b2# |
| 4 | #s314a1# | #s314b1# | #s314a2# | #s314b2# |
| 5 | #s315a1# | #s315b1# | #s315a2# | #s315b2# |
| 6 | #s316a1# | #s316b1# | #s316a2# | #s316b2# |
| 7 | #s317a1# | #s317b1# | #s317a2# | #s317b2# |
| 8 | #s318a1# | #s318b1# | #s318a2# | #s318b2# |
| 9 | #s319a1# | #s319b1# | #s319a2# | #s319b2# |
| 10 | #s3110a1# | #s3110b1# | #s3110a2# | #s3110b2# |

数据处理：

由计算，若，则°

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 序号 | 1 | 2 | 3 | 4 | 5 |
| （°） | #s321# | #s322# | #s323# | #s324# | #s325# |
| 序号 | 6 | 7 | 8 | 9 | 10 |
| （°） | #s326# | #s327# | #s328# | #s329# | #s3210# |

顶角的计算：

=#s32calcu\_delta#°

取A=#s12calcu\_A#°

#s32calcu\_n#°

不确定度计算：

#s32ua\_delta#°

#s32ub\_delta#°

#s32u\_delta#°

#s32u\_n#

最终结果：

#s32final\_n#