Raman Spectra

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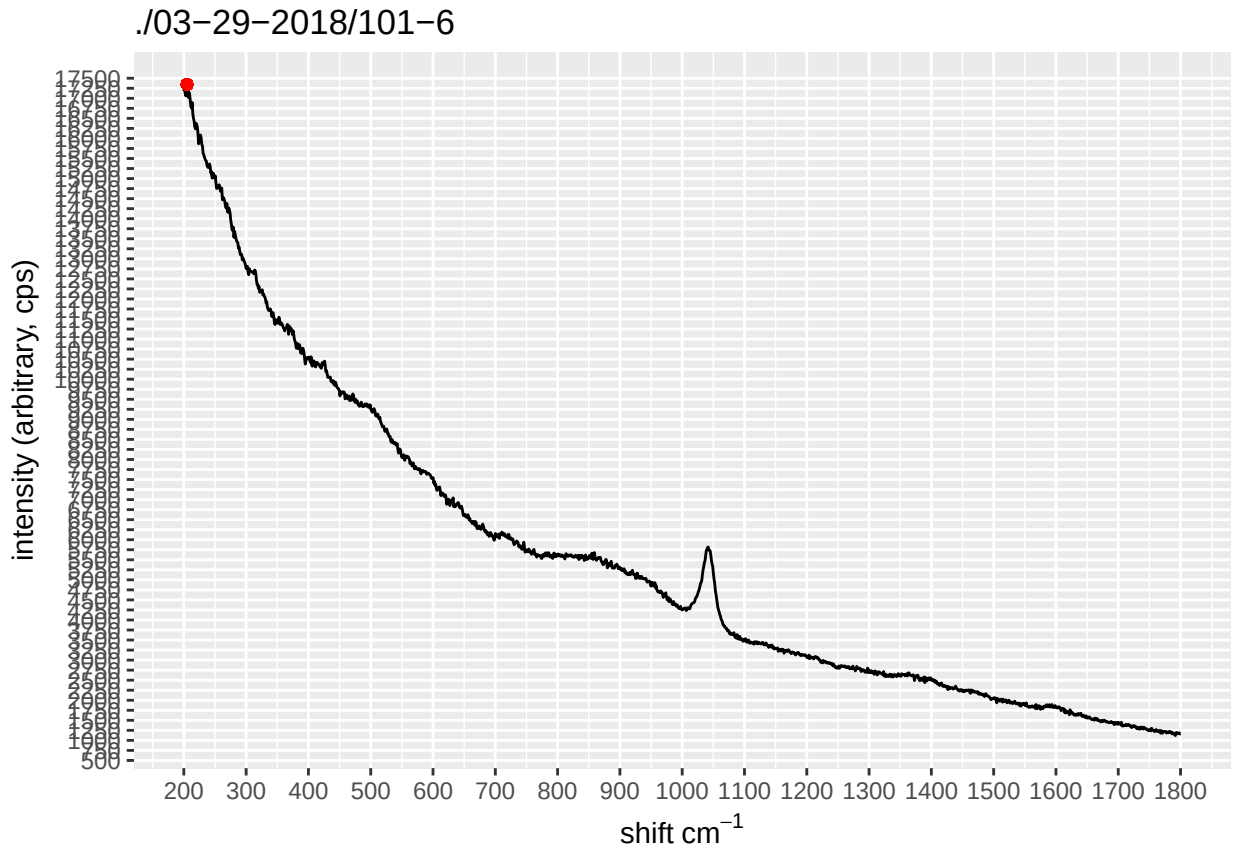
Contents

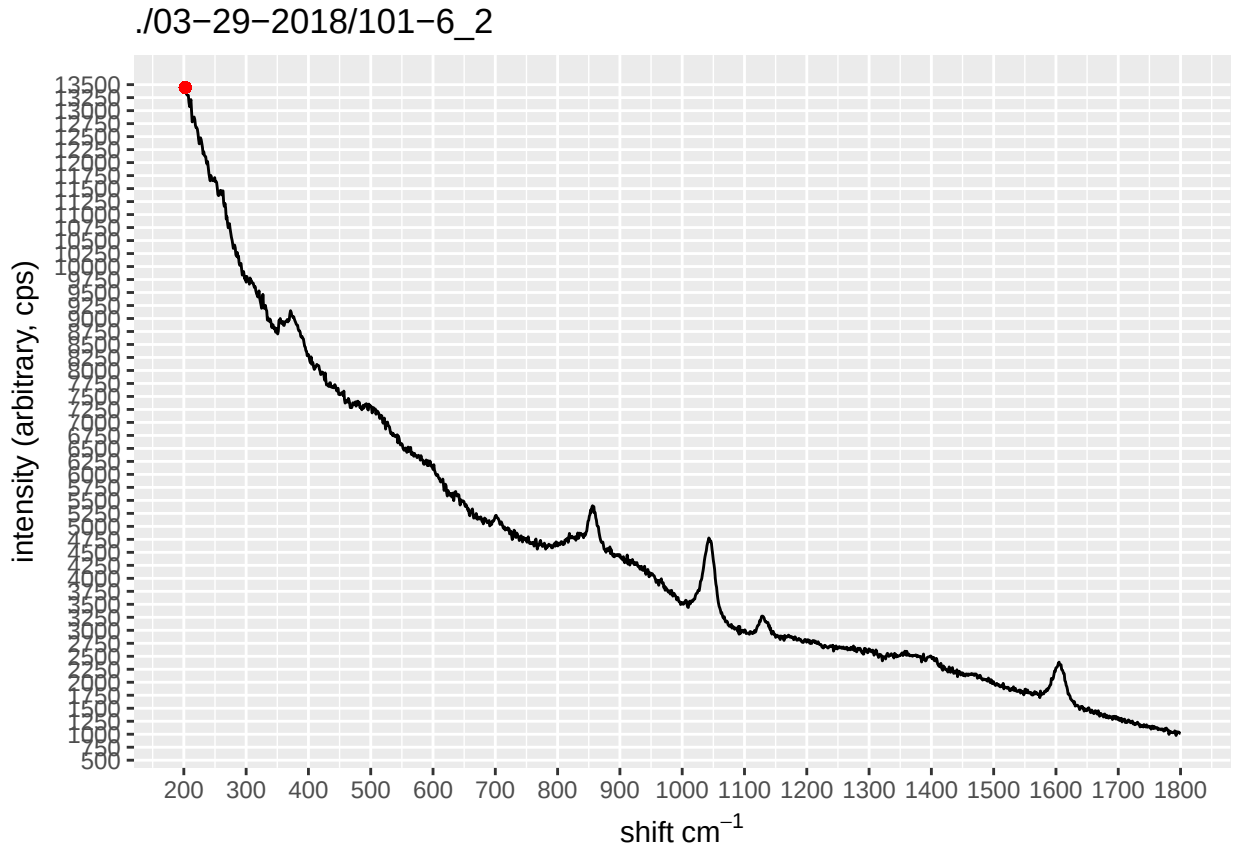
ALL 1
20x 47
50x 54
ibuprofen 83
1s, 2 reps 109
2s, 3 reps 126

ALL

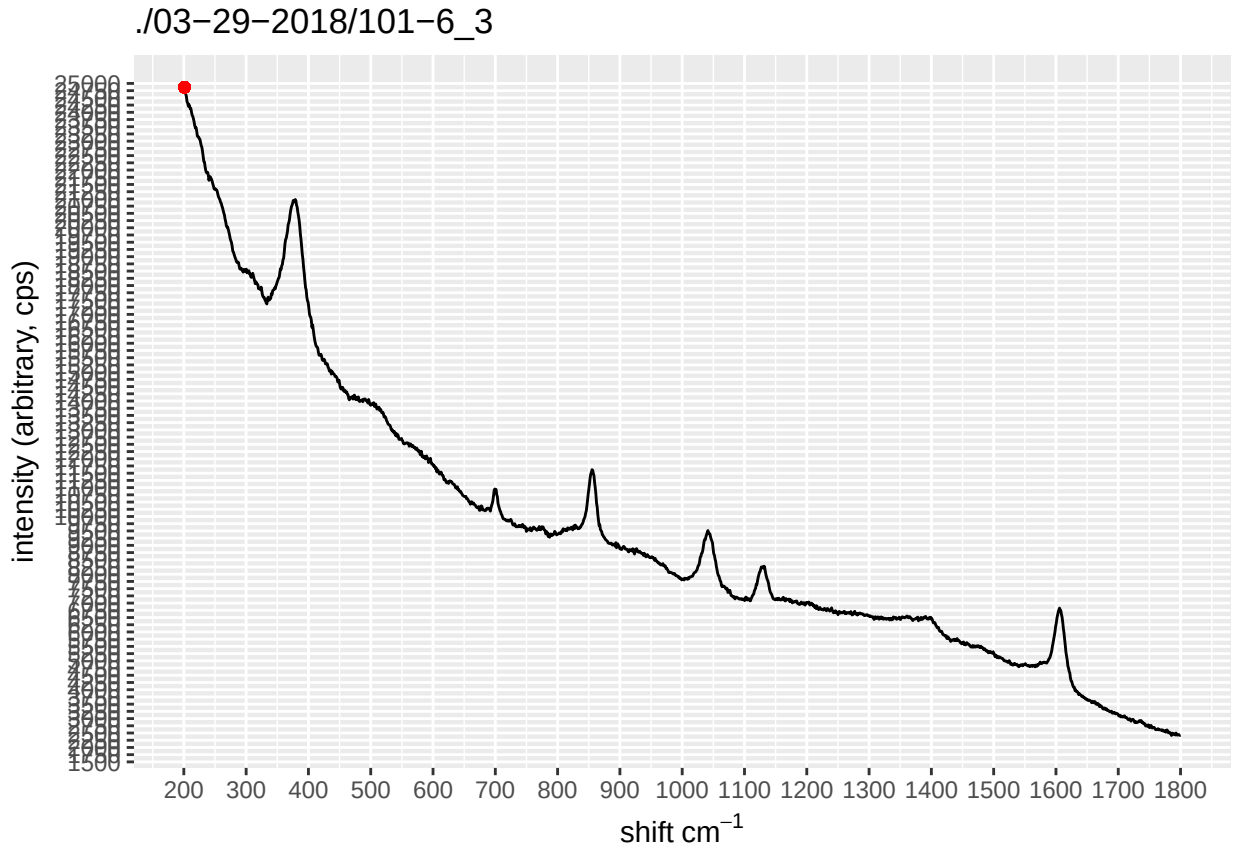
```
## $plot
```



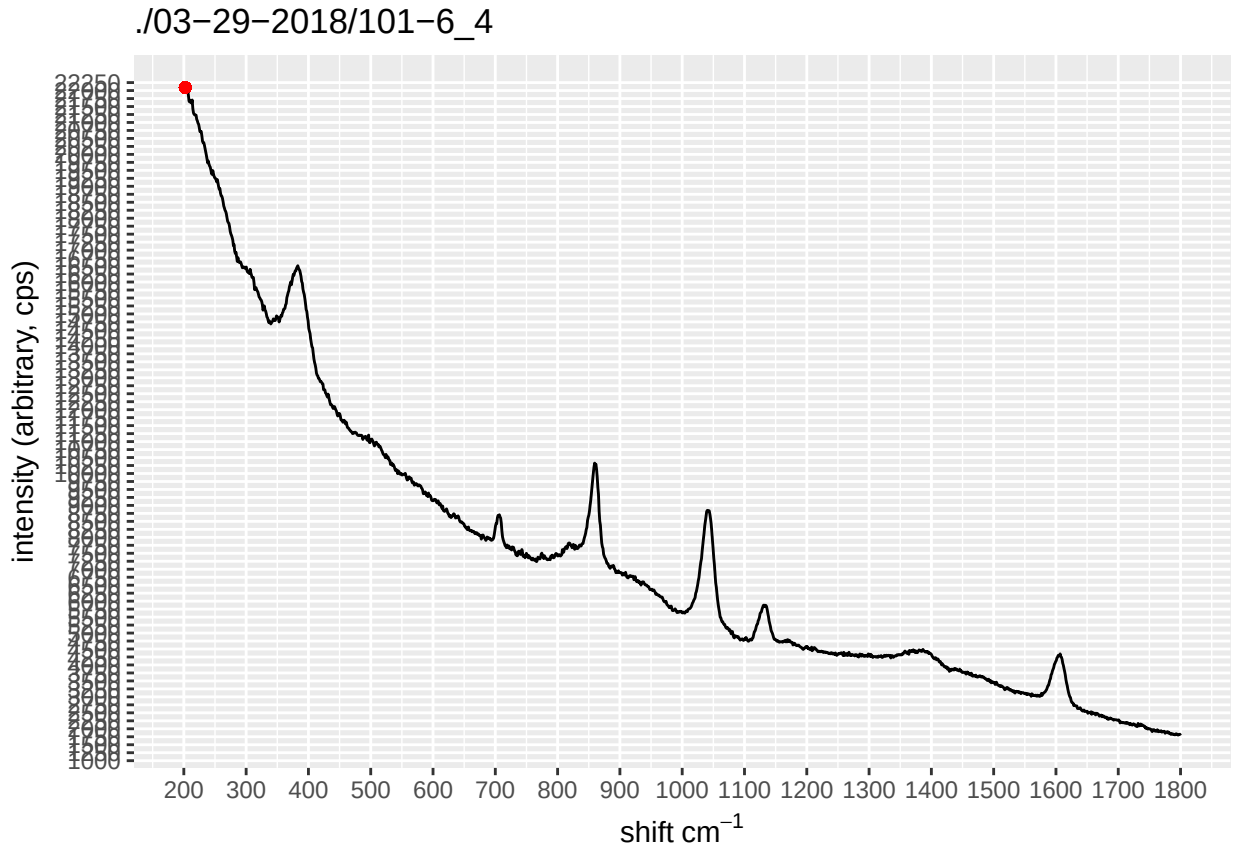

```
##
## $plot
```


./03−29−2018/101−6_2
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

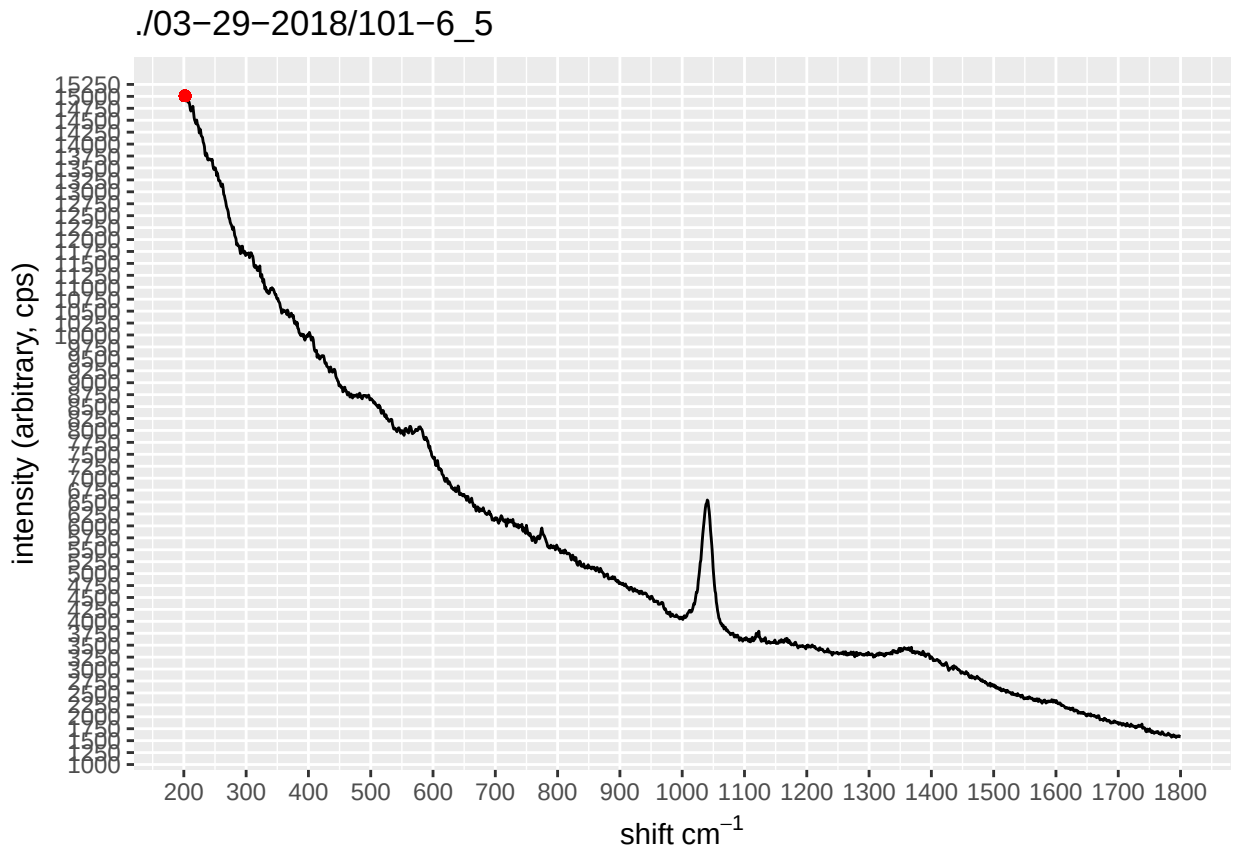
```
##
## $plot
```


./03−29−2018/101−6_3
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

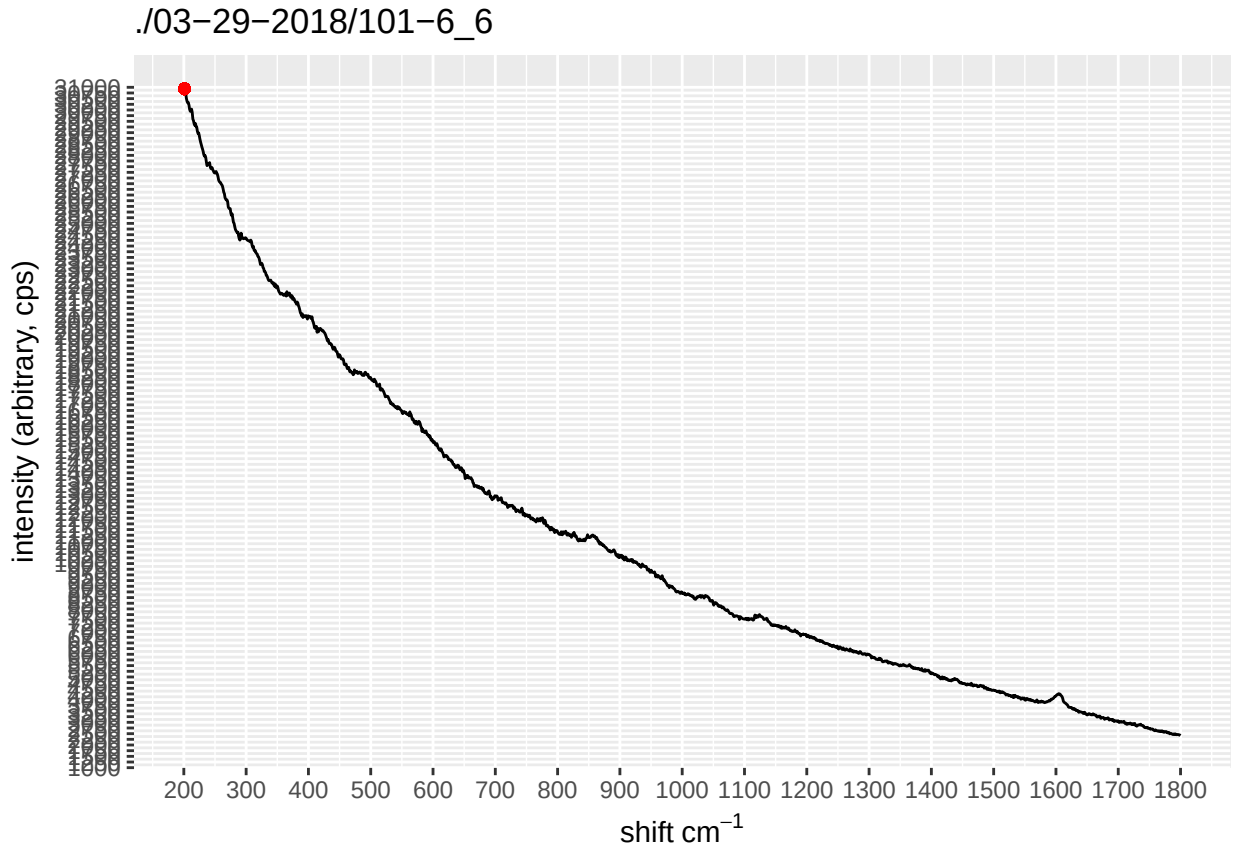
```
##
## $plot
```


./03−29−2018/101−6_4
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

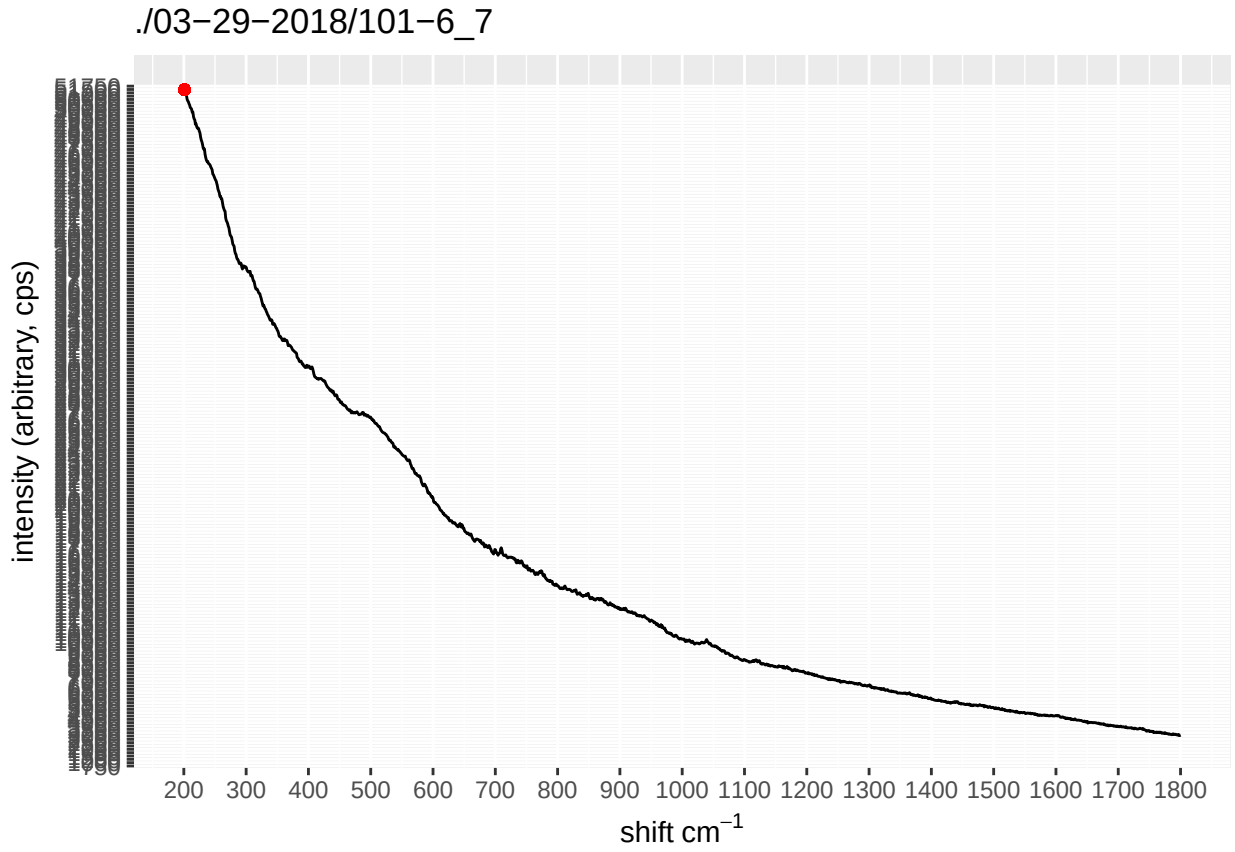
```
##
## $plot
```


./03−29−2018/101−6_5
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

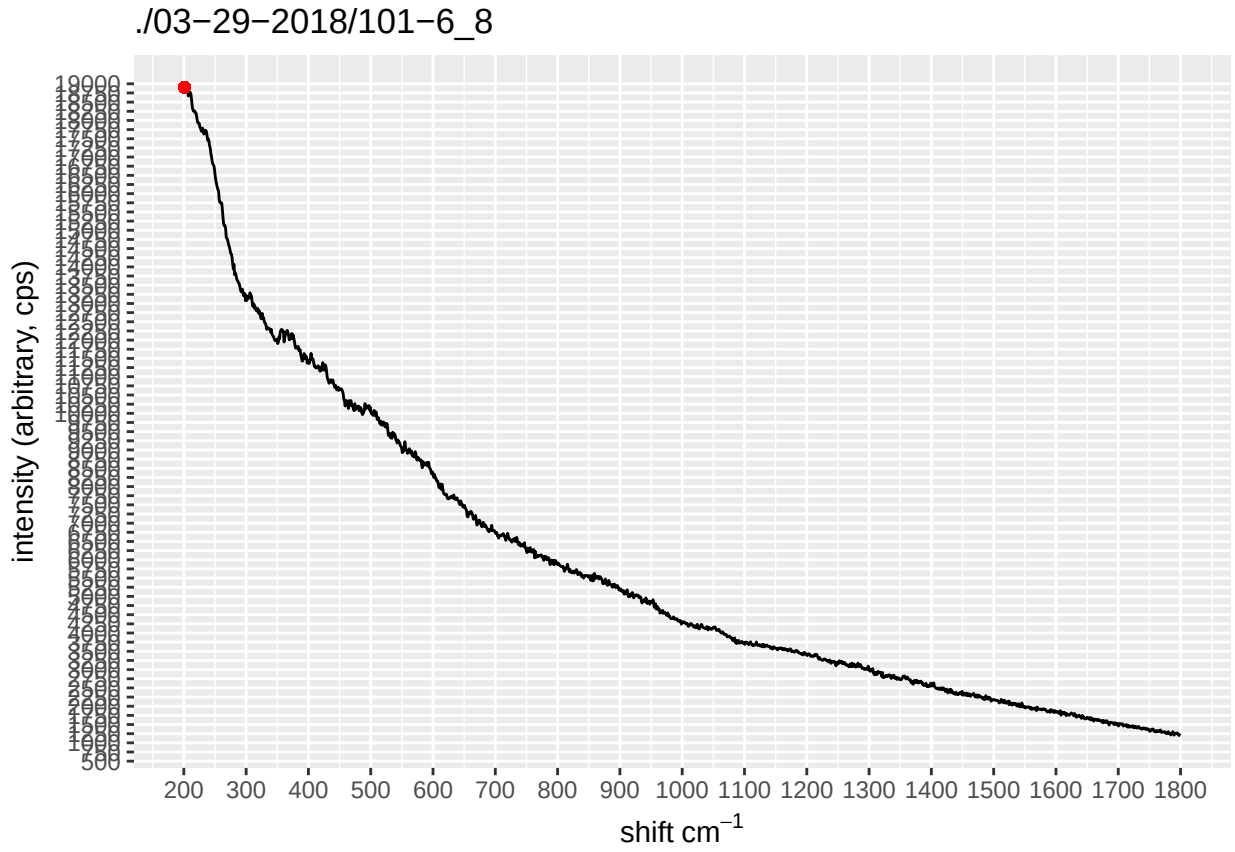
```
##
## $plot
```


./03−29−2018/101−6_6
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

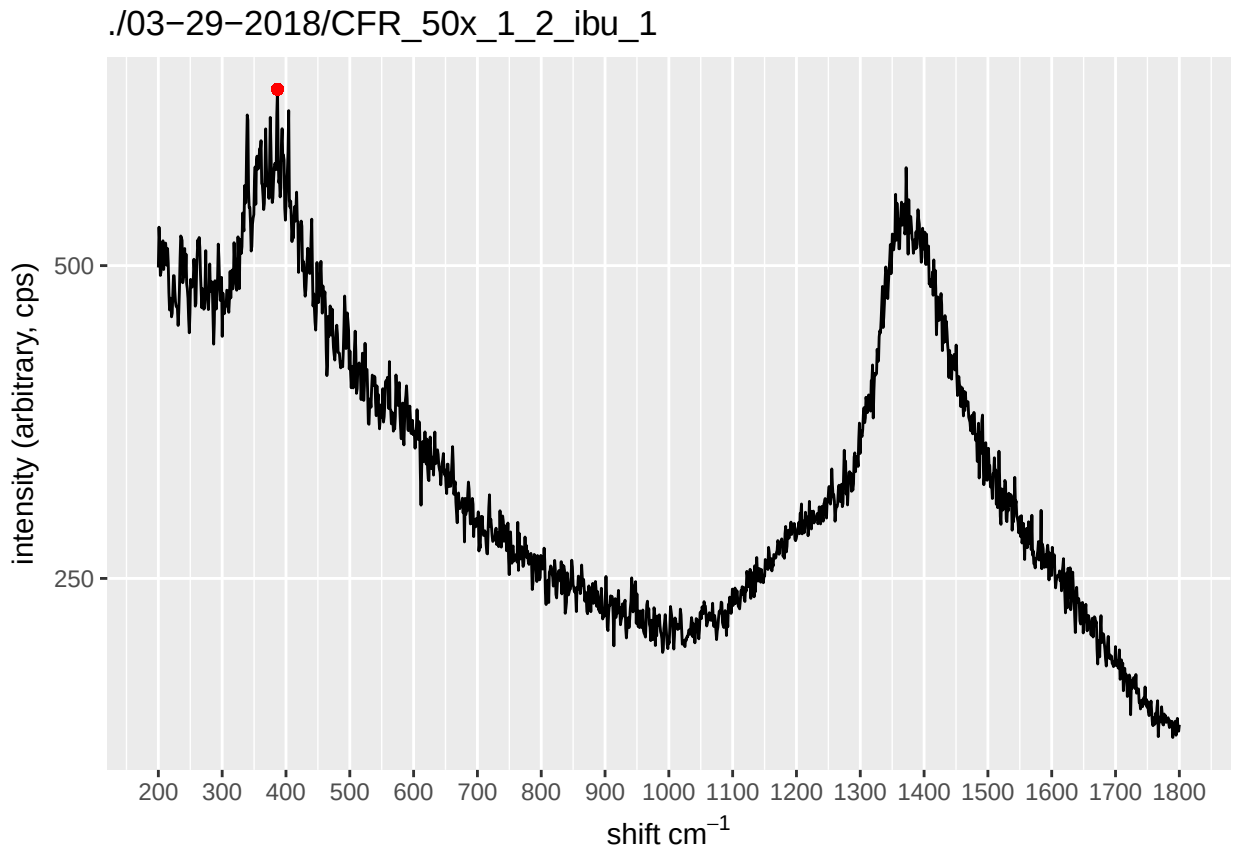
```
##
## $plot
```


./03−29−2018/101−6_7
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

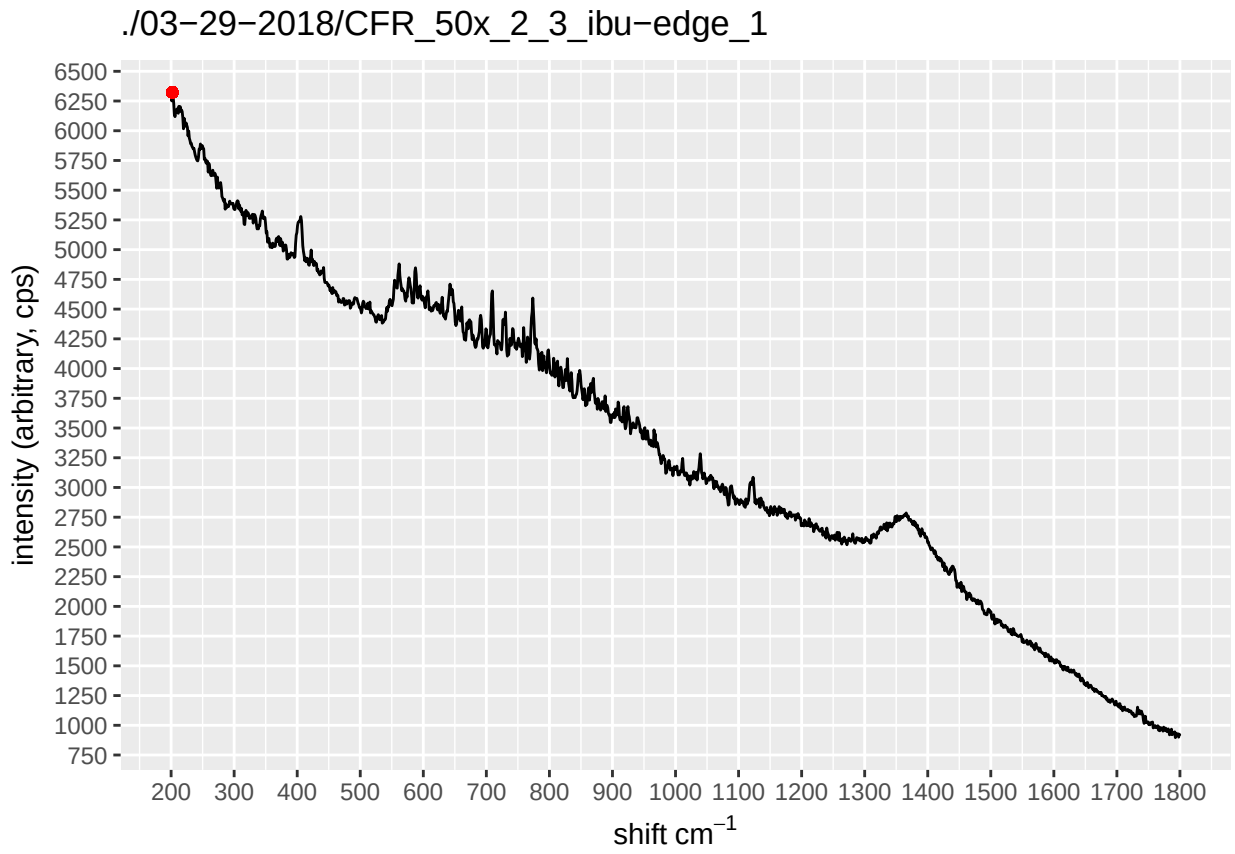
```
##
## $plot
```


./03−29−2018/101−6_8
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

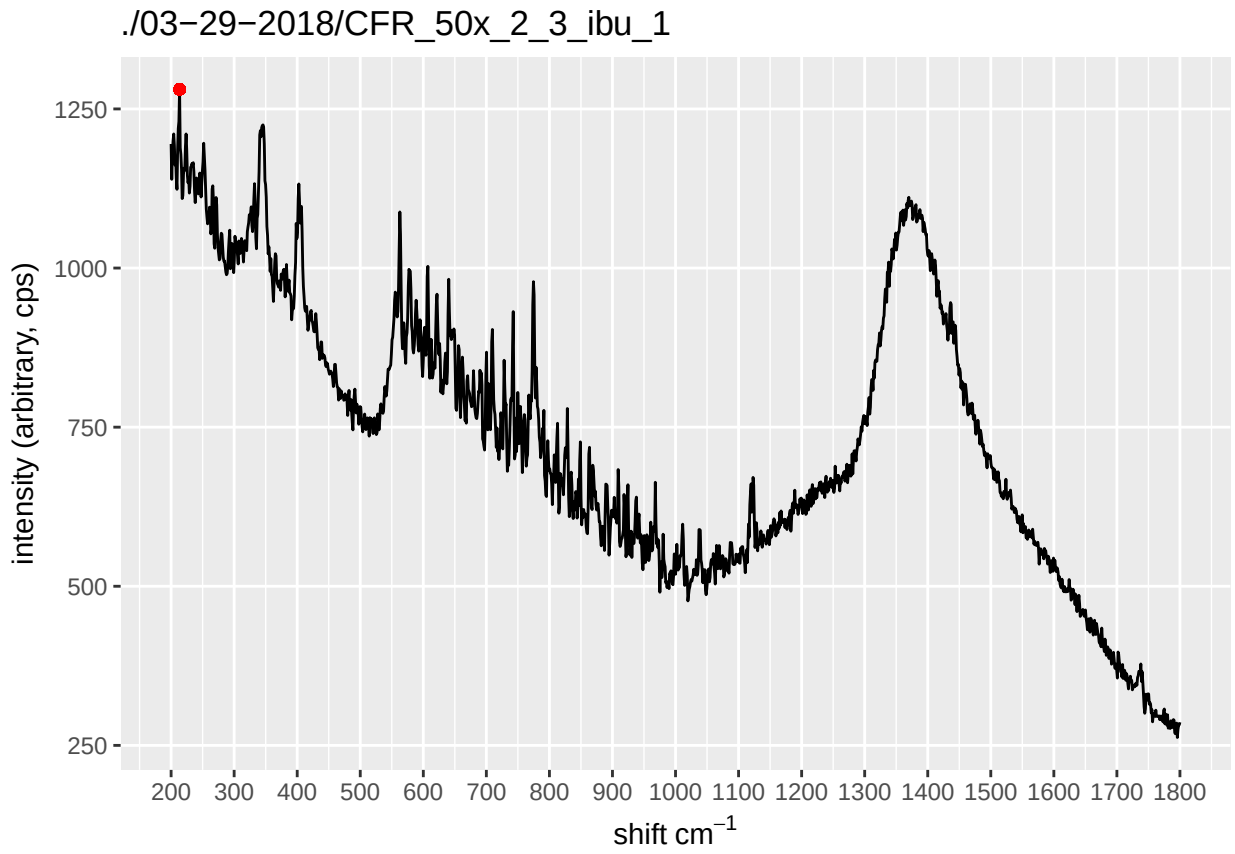
```
##
## $plot
```


./03−29−2018/CFR_50x_1_2_ibu_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

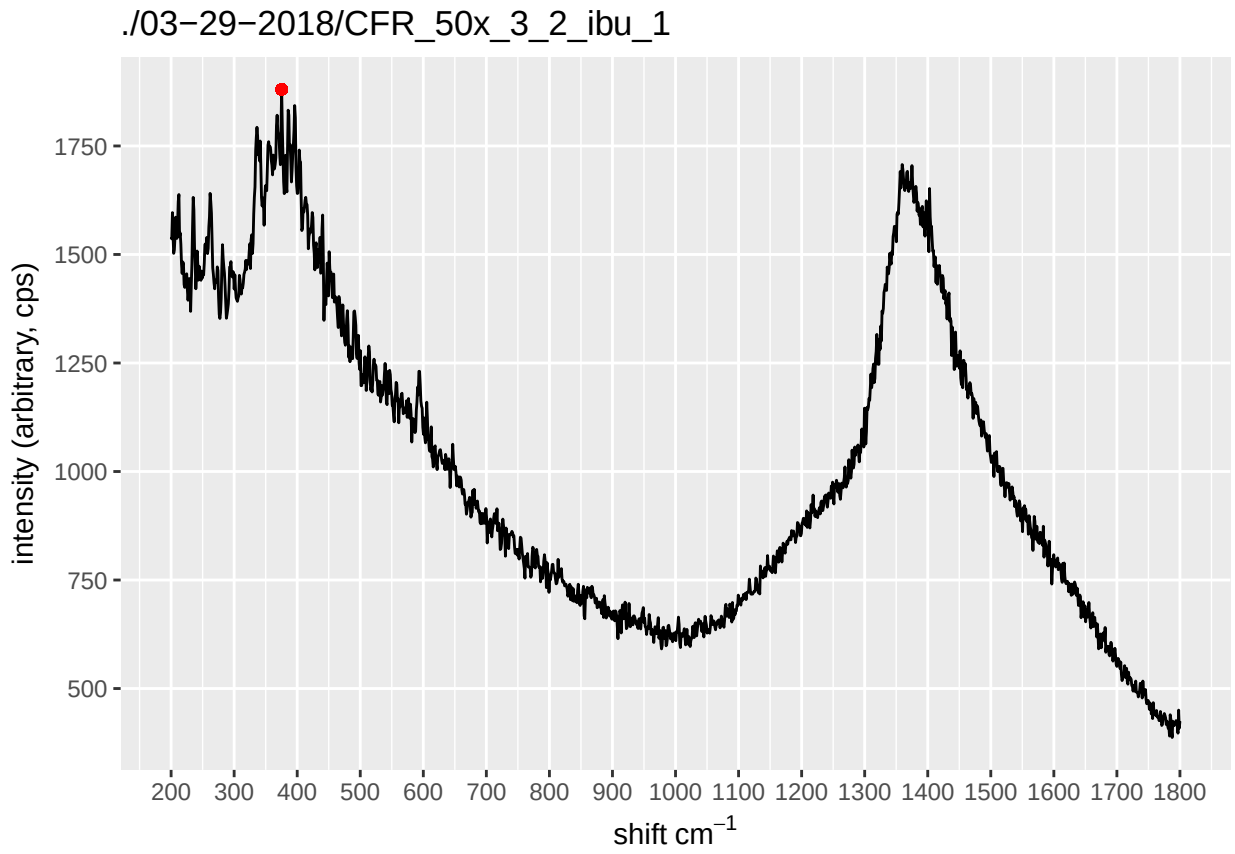
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu−edge_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

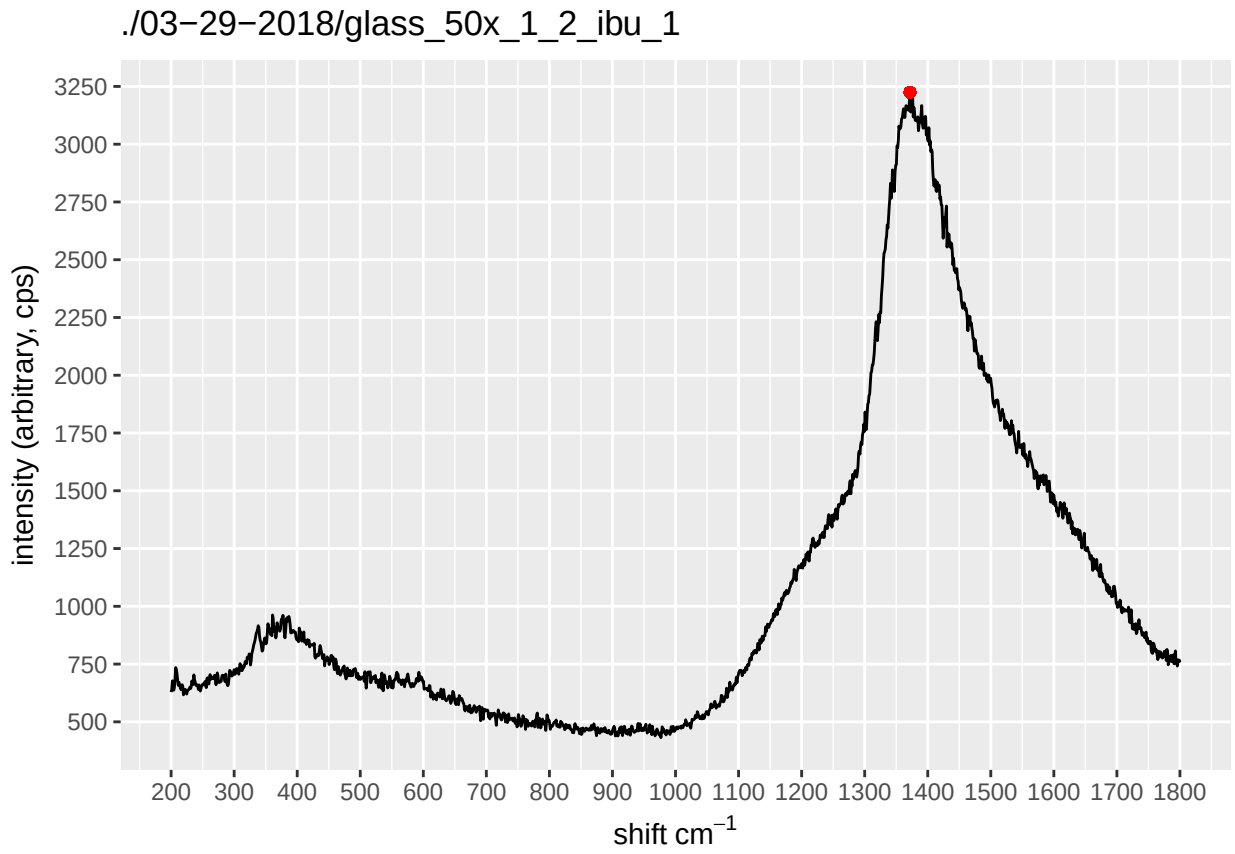
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

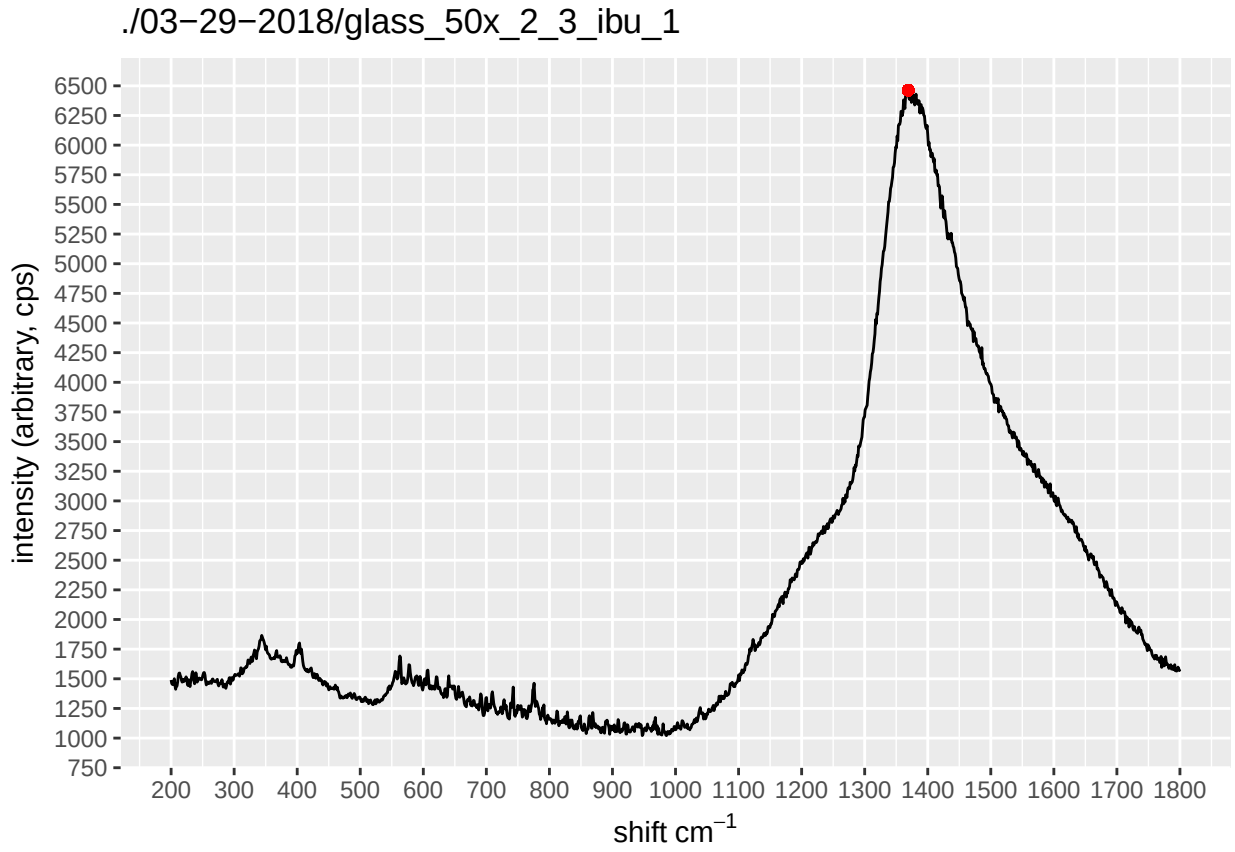
```
##
## $plot
```


./03−29−2018/CFR_50x_3_2_ibu_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

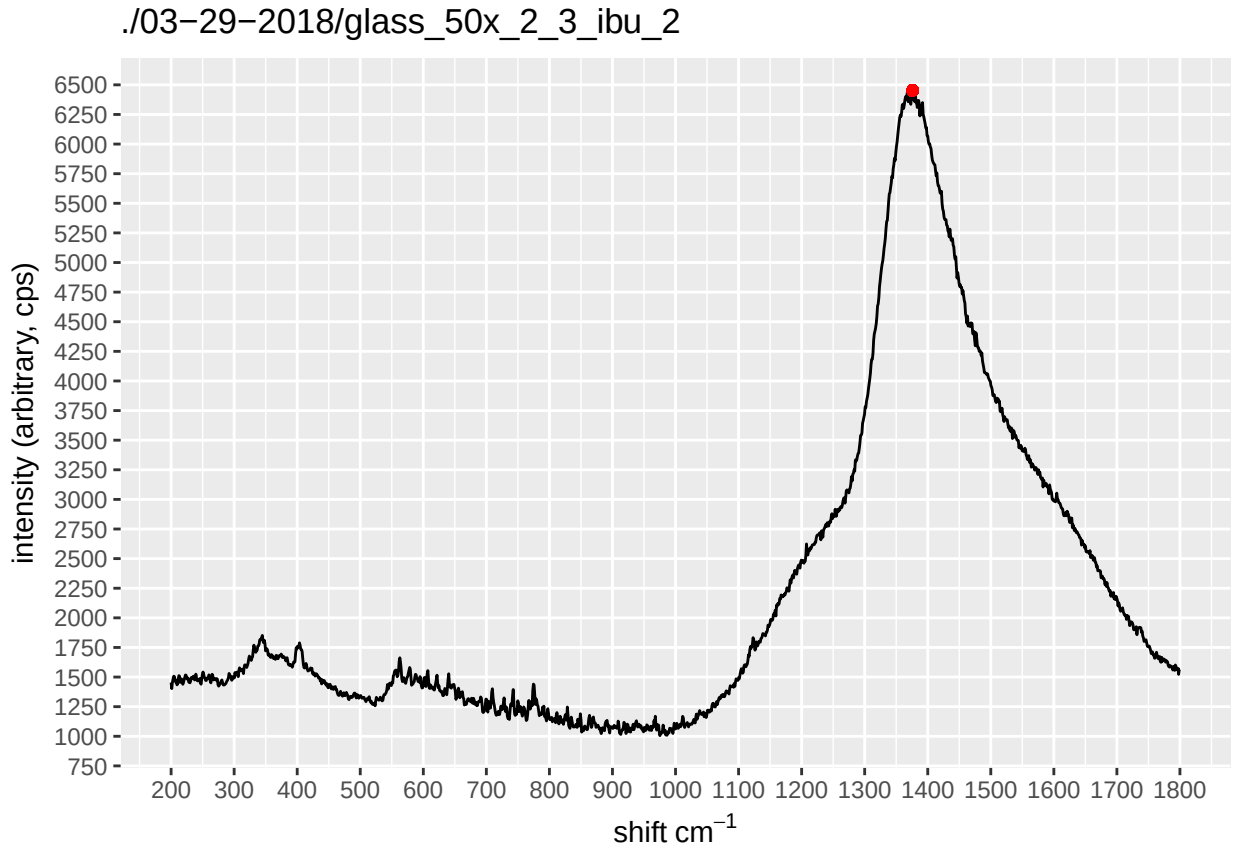
```
##
## $plot
```


./03−29−2018/glass_50x_1_2_ibu_1
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

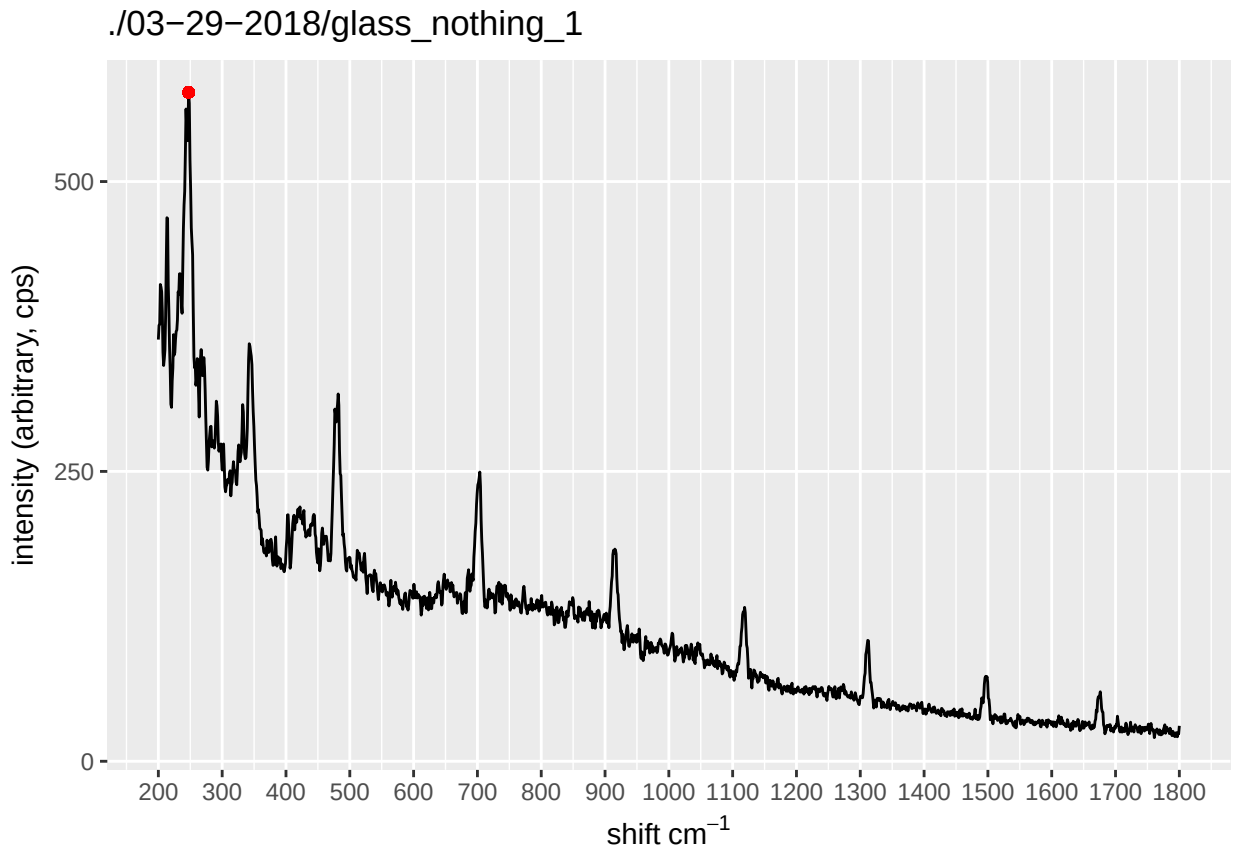
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

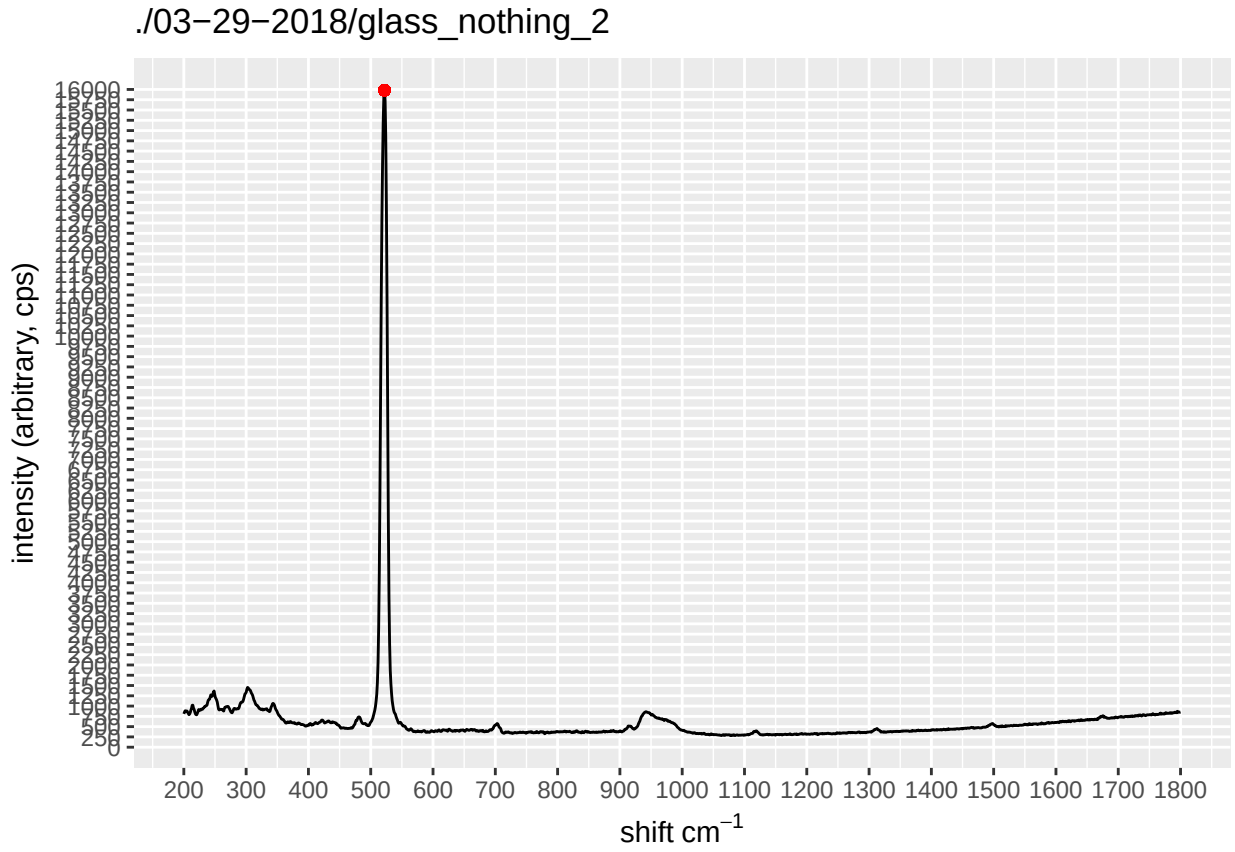
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_2
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

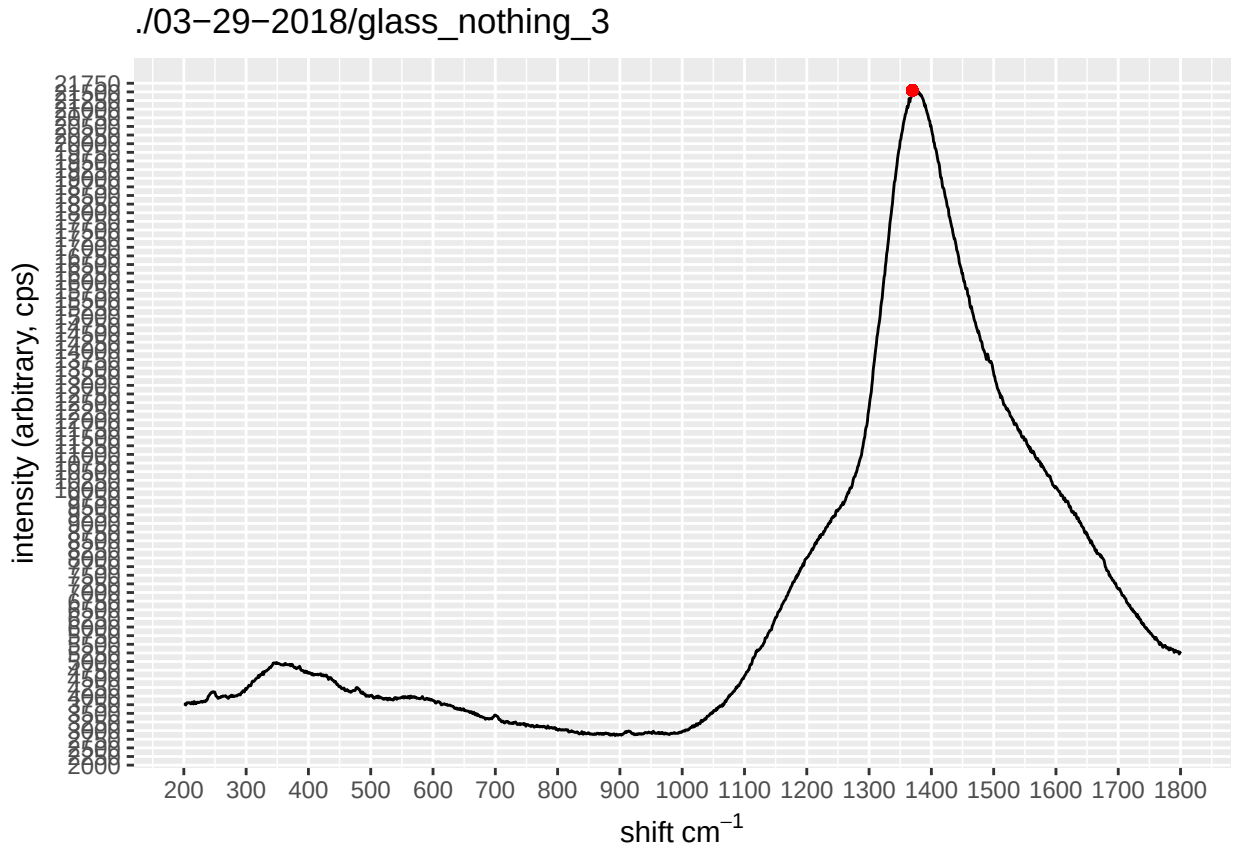
```
##
## $plot
```


./03−29−2018/glass_nothing_1
intensity (arbitrary, cps)
0
250
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

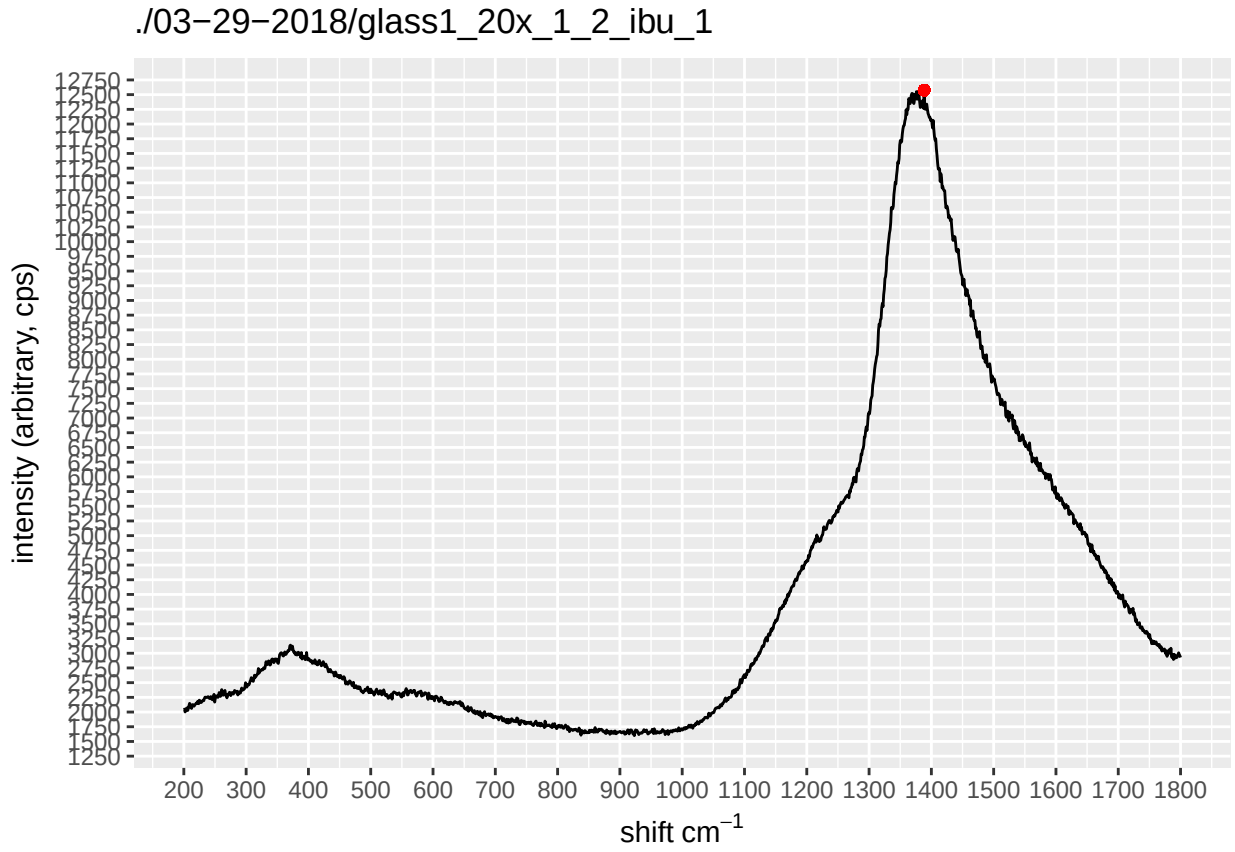
```
##
## $plot
```


./03−29−2018/glass_nothing_2
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

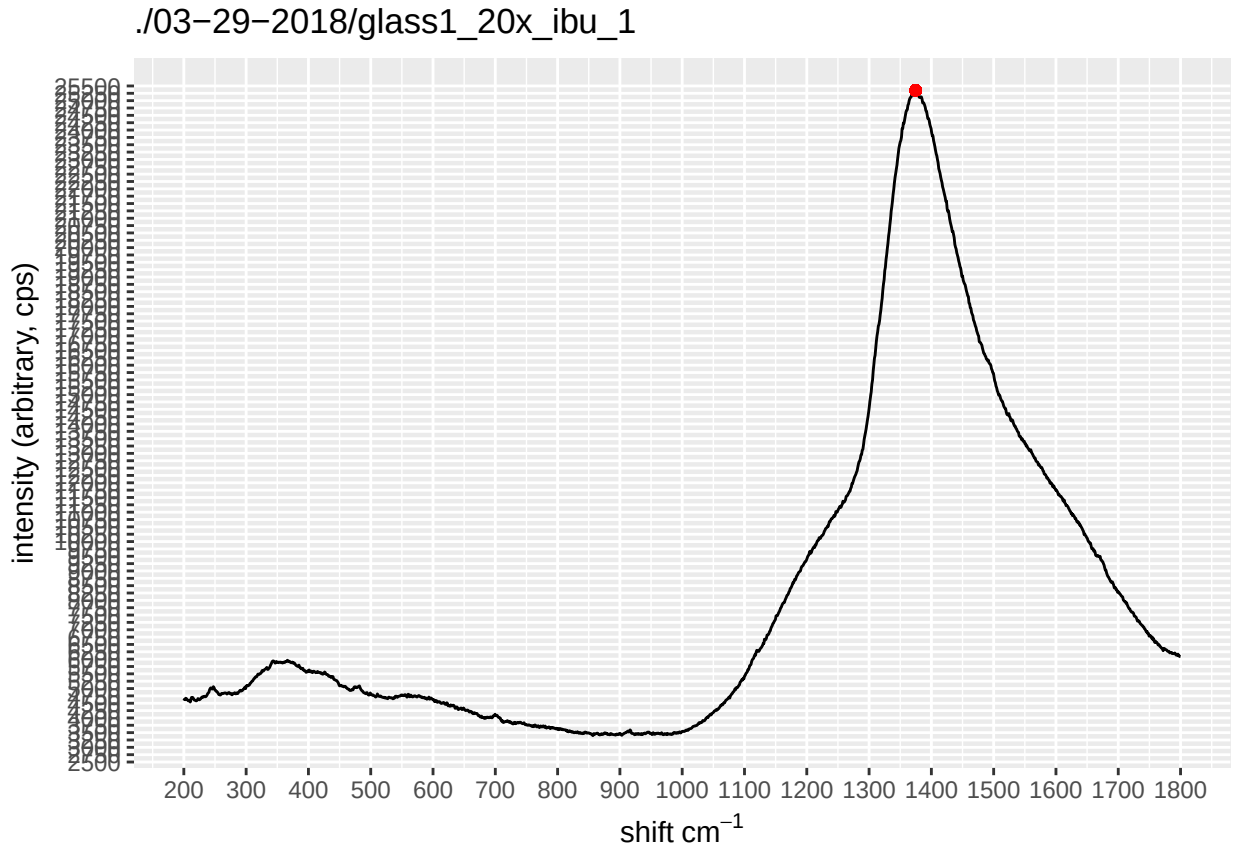
```
##
## $plot
```


./03−29−2018/glass_nothing_3
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

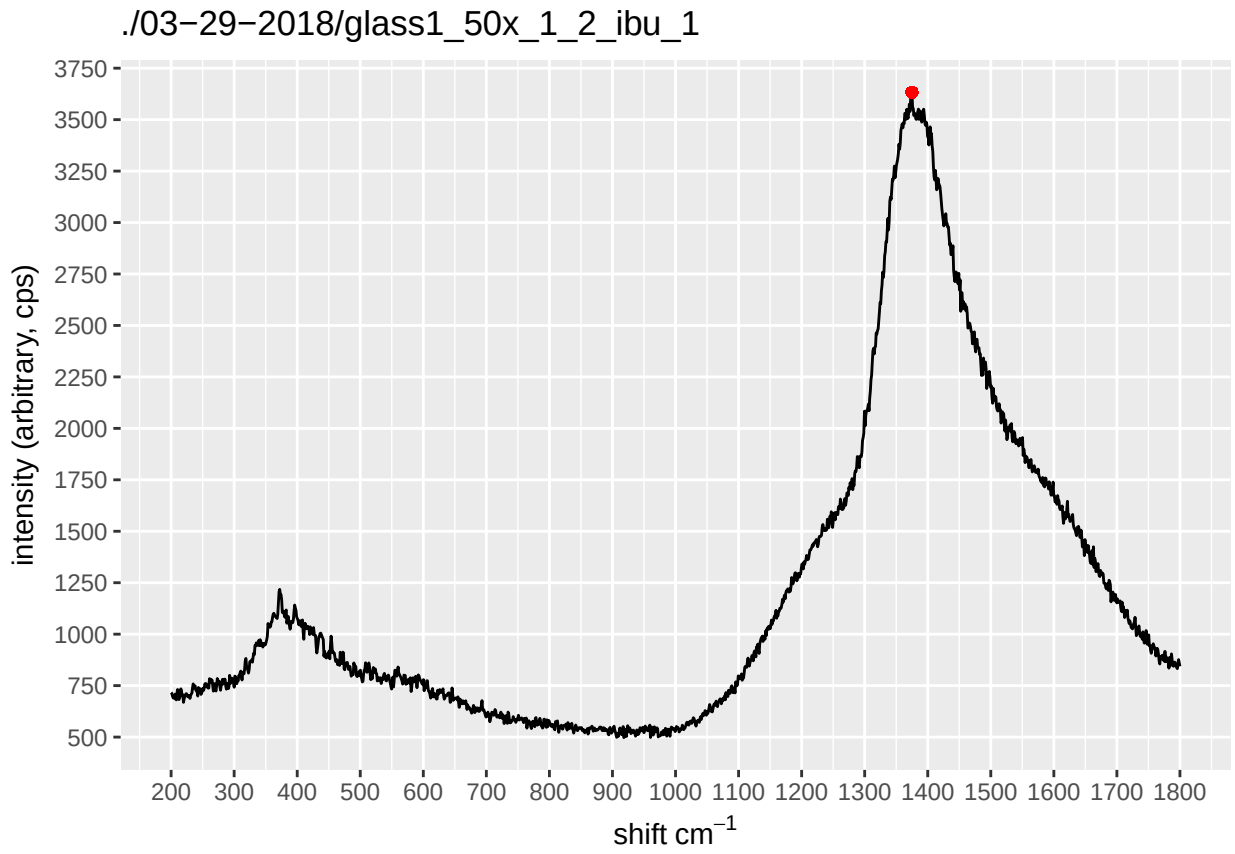
```
##
## $plot
```


./03−29−2018/glass1_20x_1_2_ibu_1
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

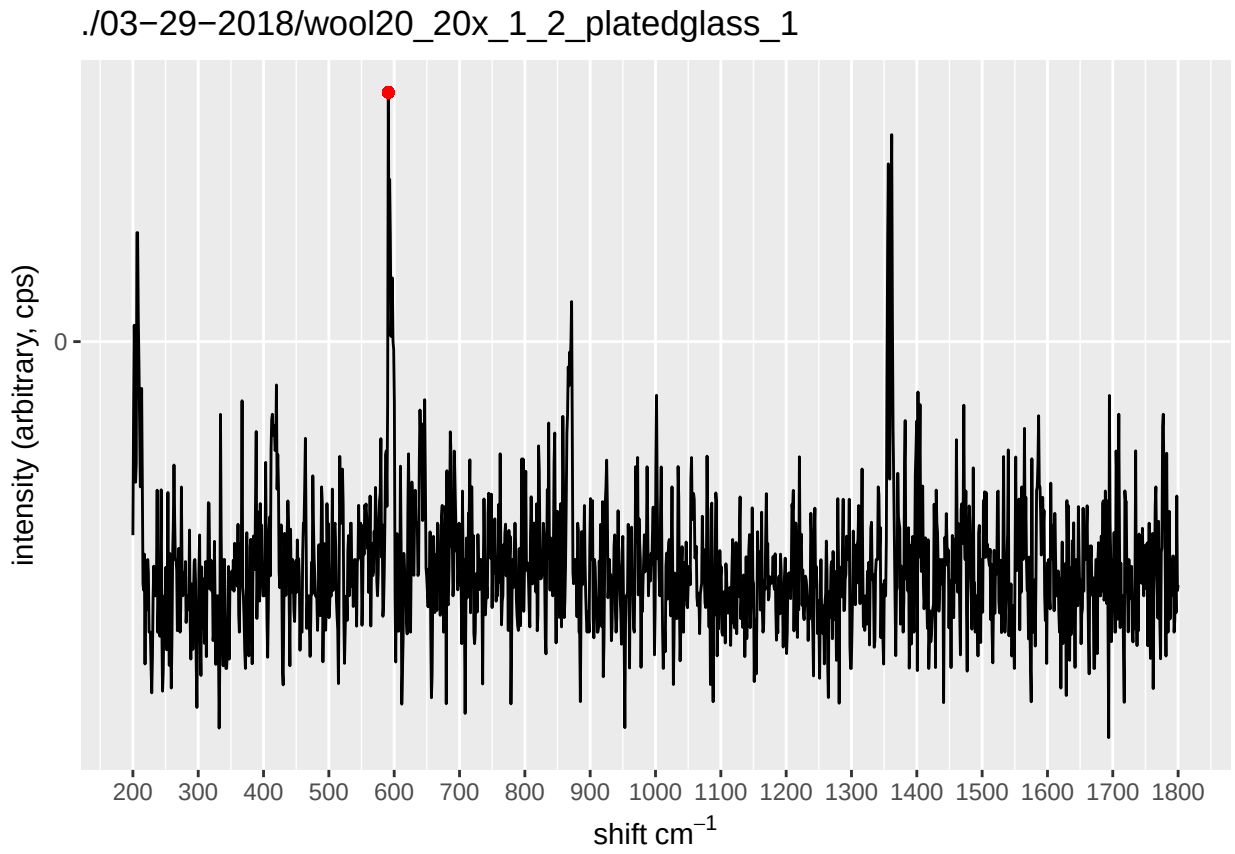
```
##
## $plot
```


./03−29−2018/glass1_20x_ibu_1
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

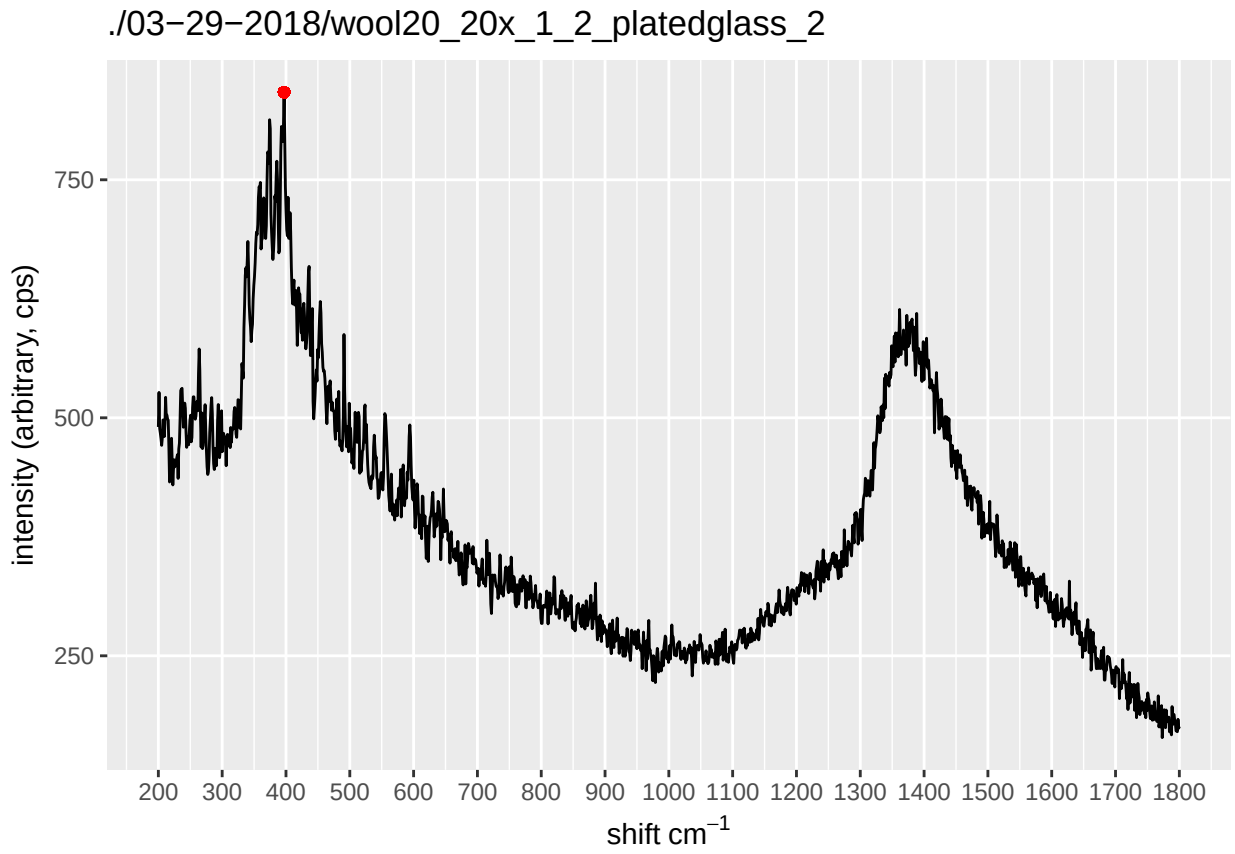
```
##
## $plot
```


./03−29−2018/glass1_50x_1_2_ibu_1
intensity (arbitrary, cps)
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

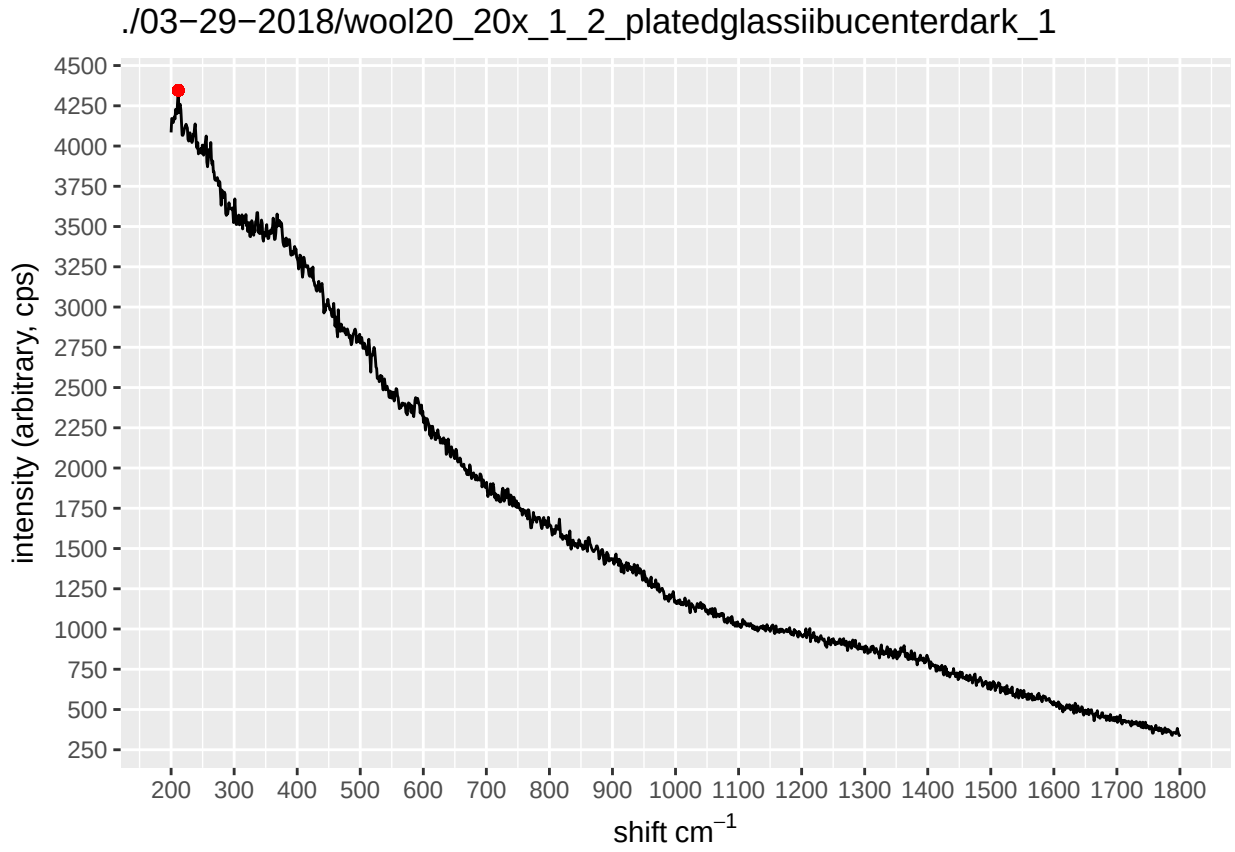
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_1
intensity (arbitrary, cps)
0
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

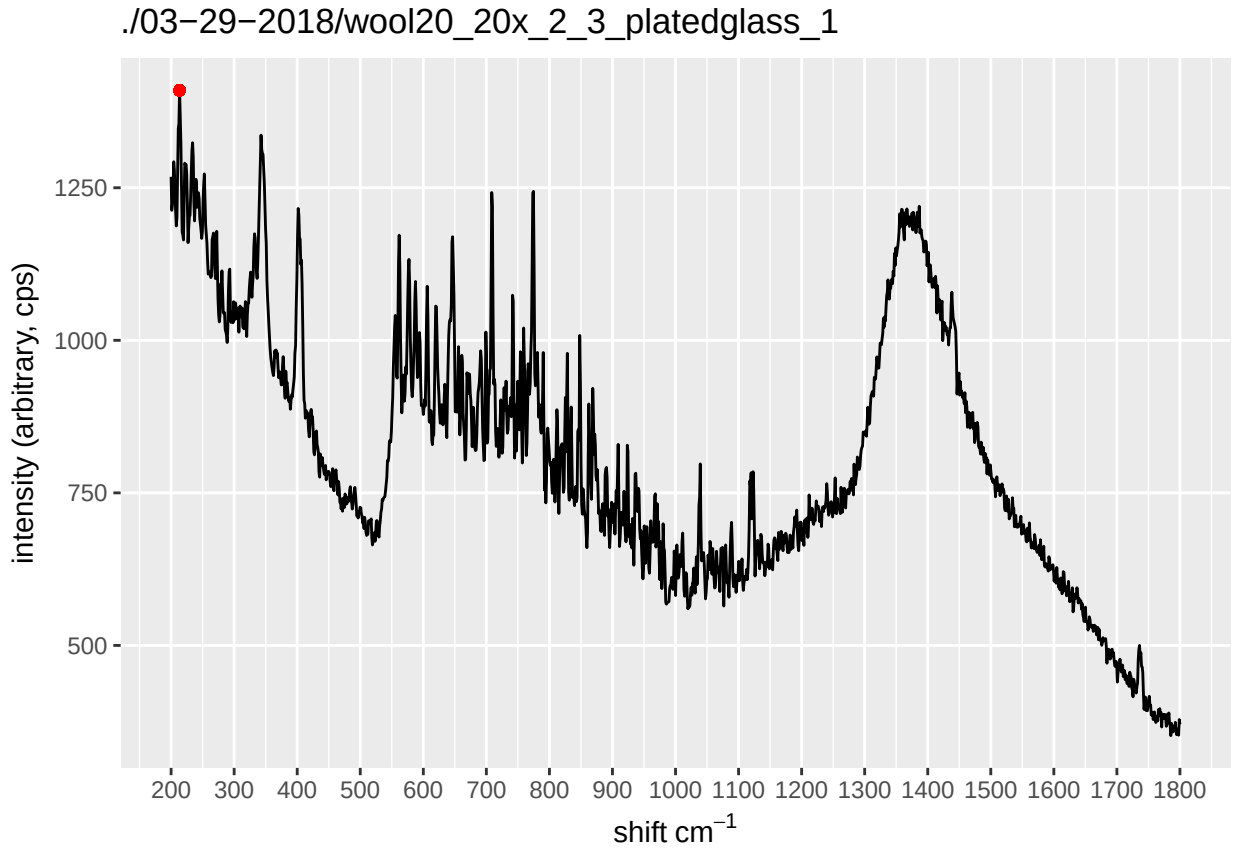
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_2
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

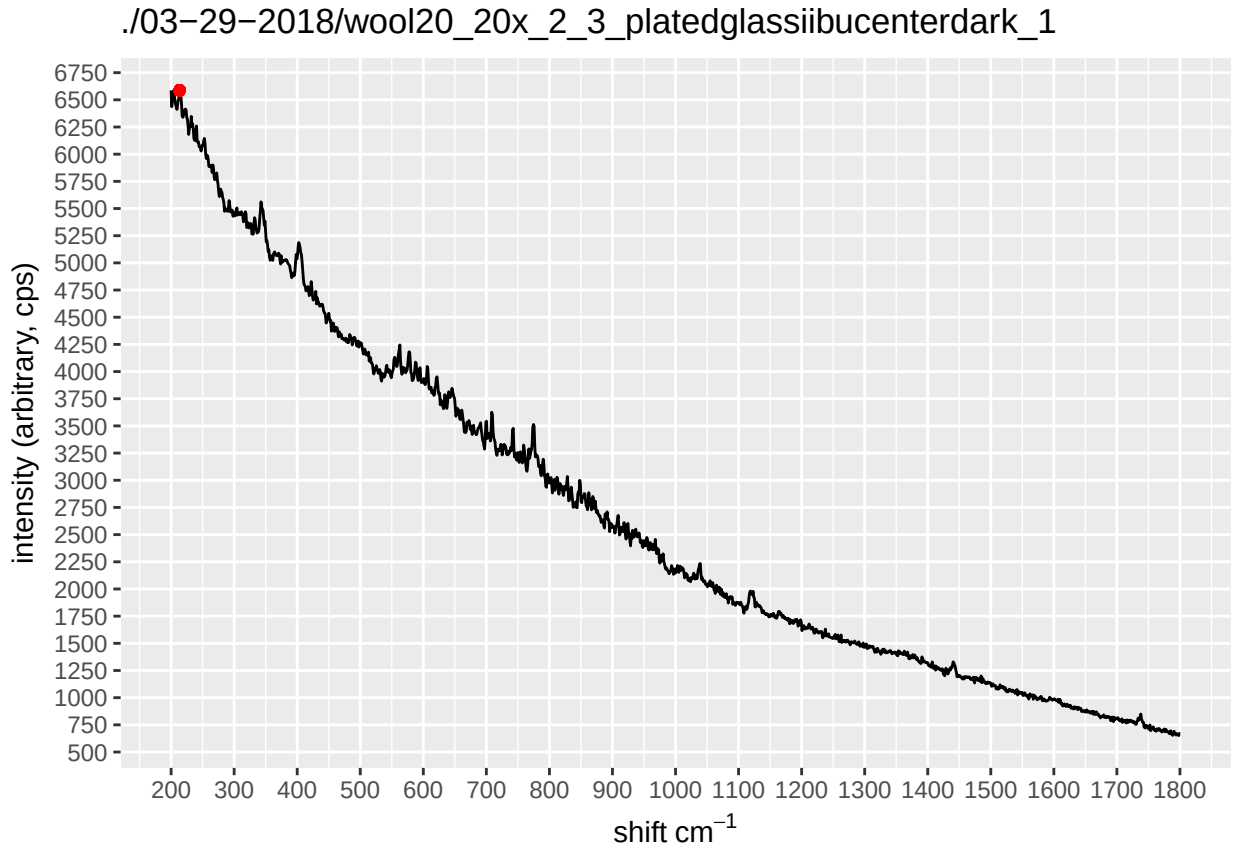
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

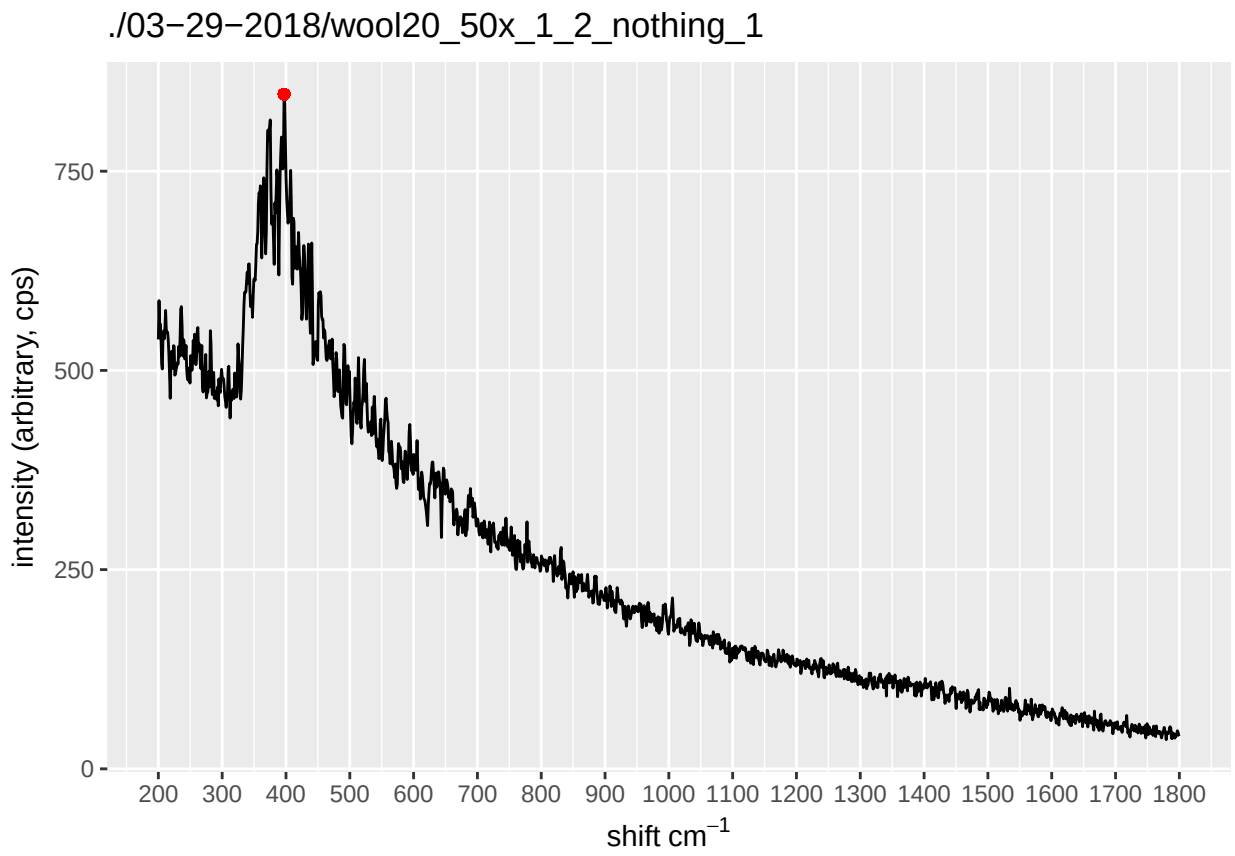
```
##
## $plot
```


./03−29−2018/wool20_20x_2_3_platedglass_1
intensity (arbitrary, cps)
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

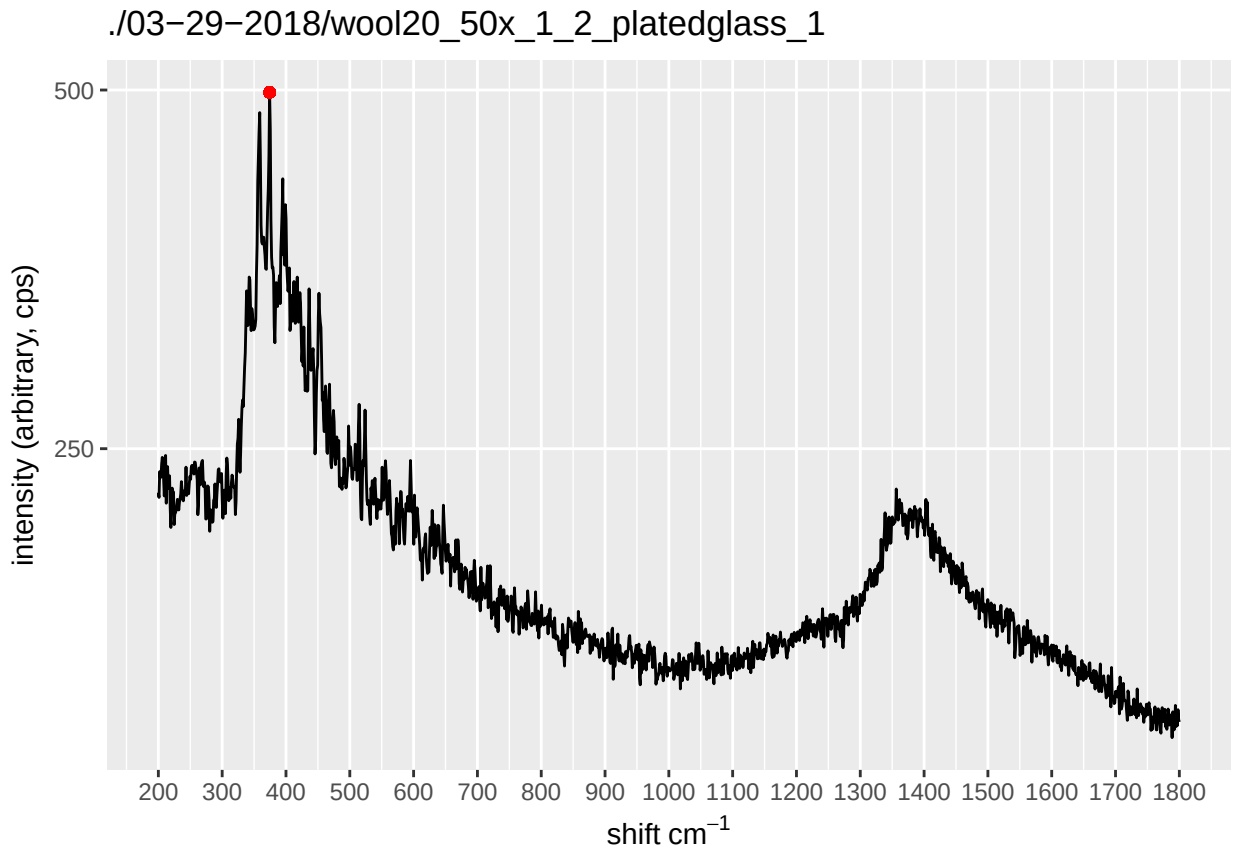
```
##
## $plot
```


./03−29−2018/wool20_20x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

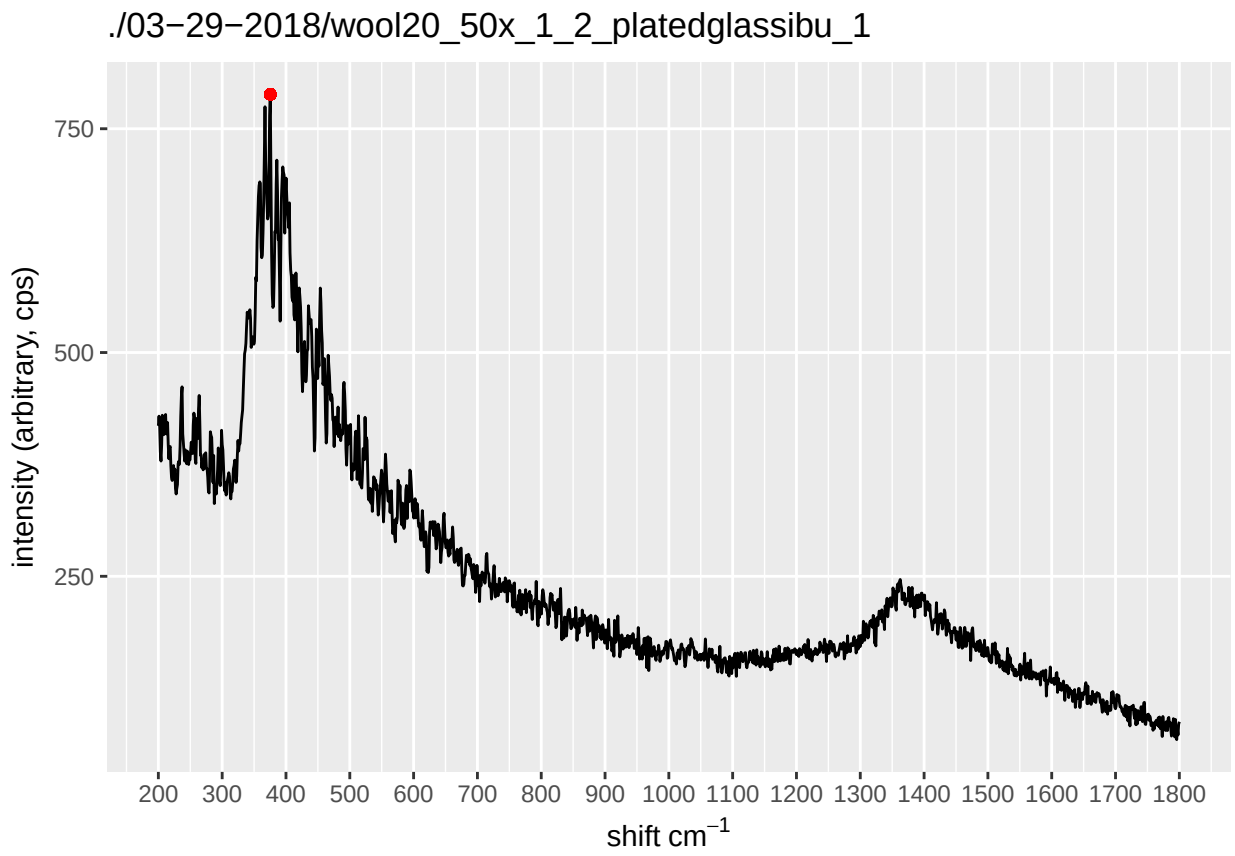
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_nothing_1
intensity (arbitrary, cps)
0
250
500
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

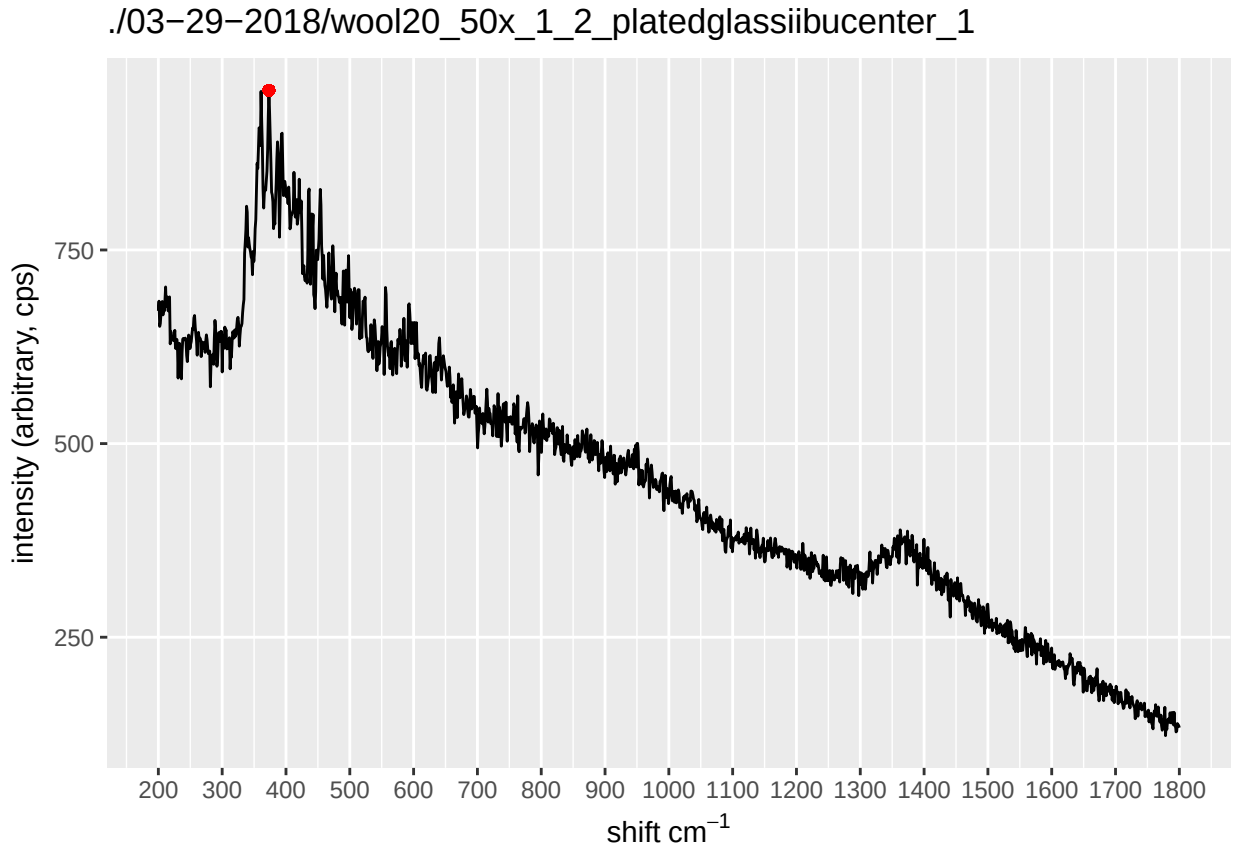
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglass_1
500
250
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

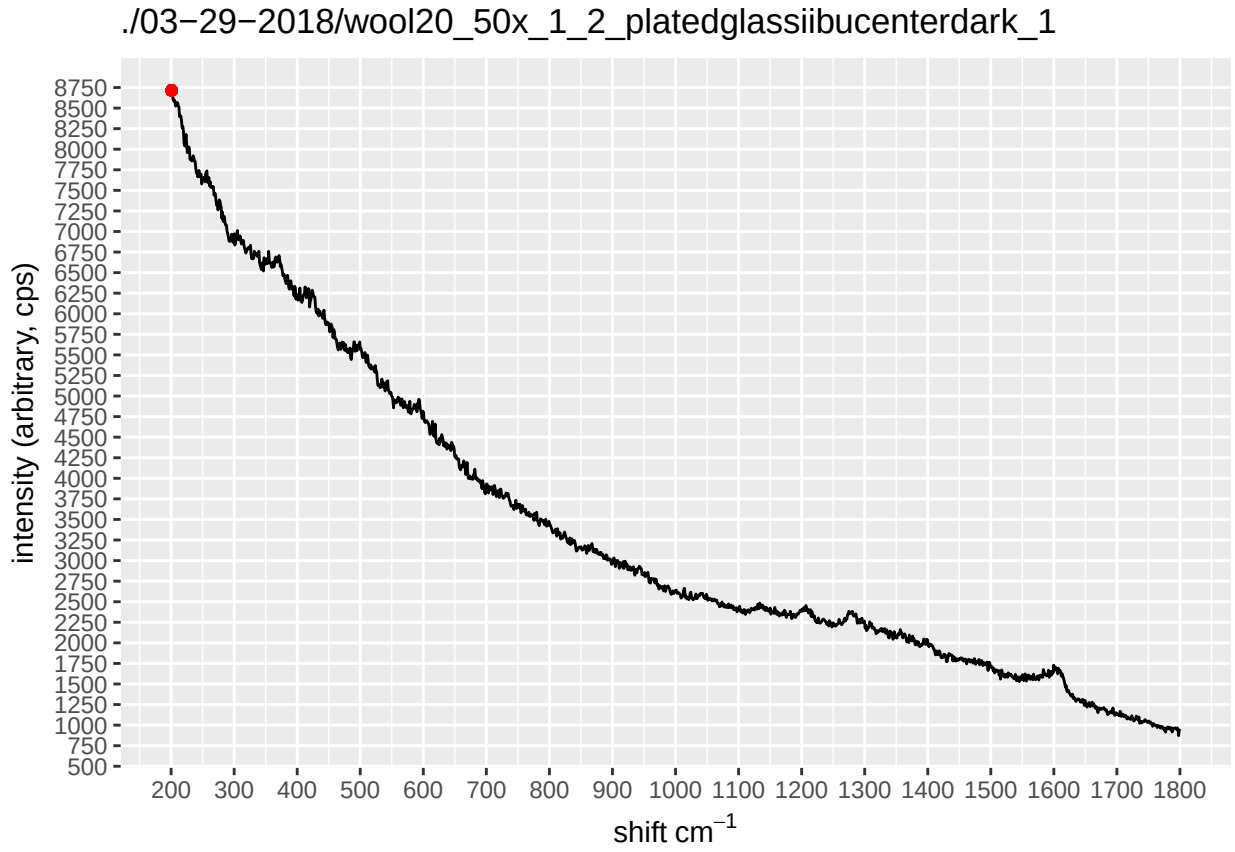
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassibu_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

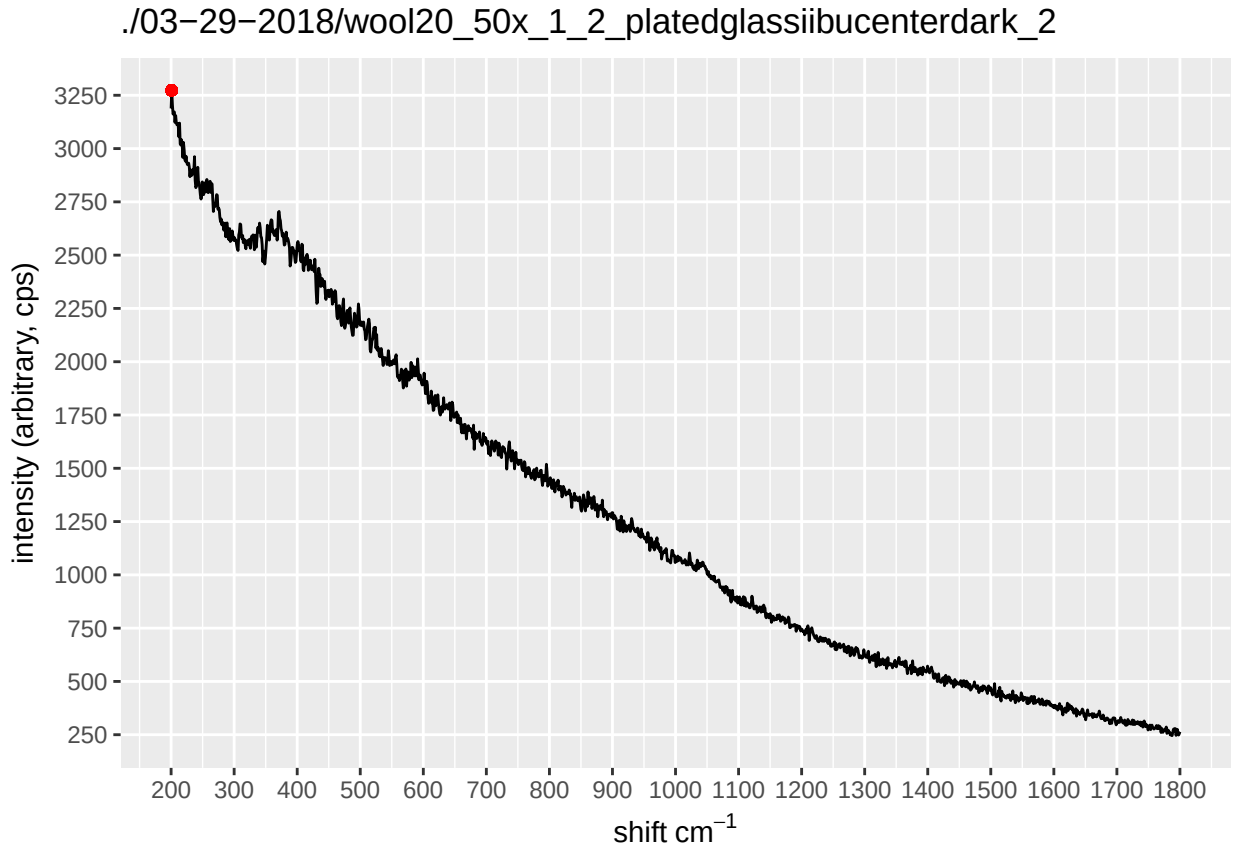
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenter_1
intensity (arbitrary, cps)
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

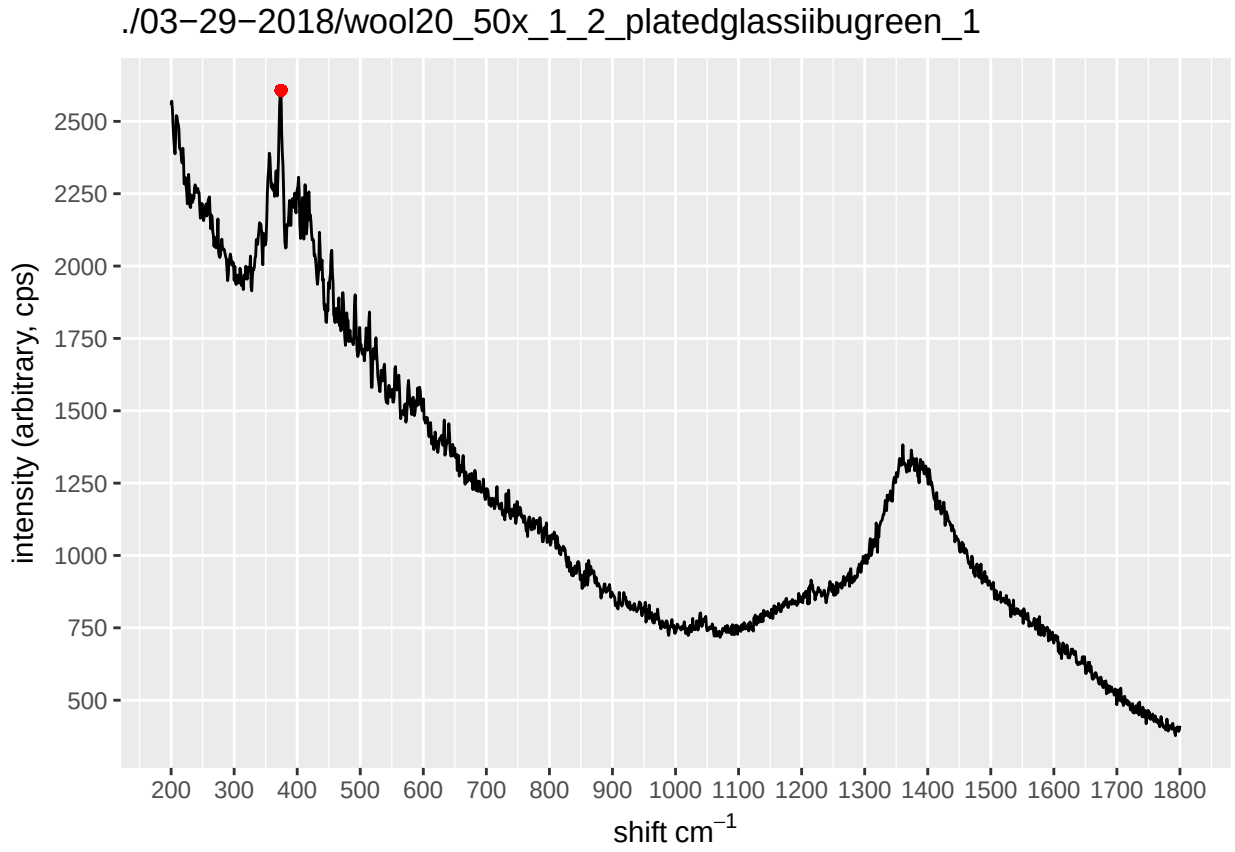
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

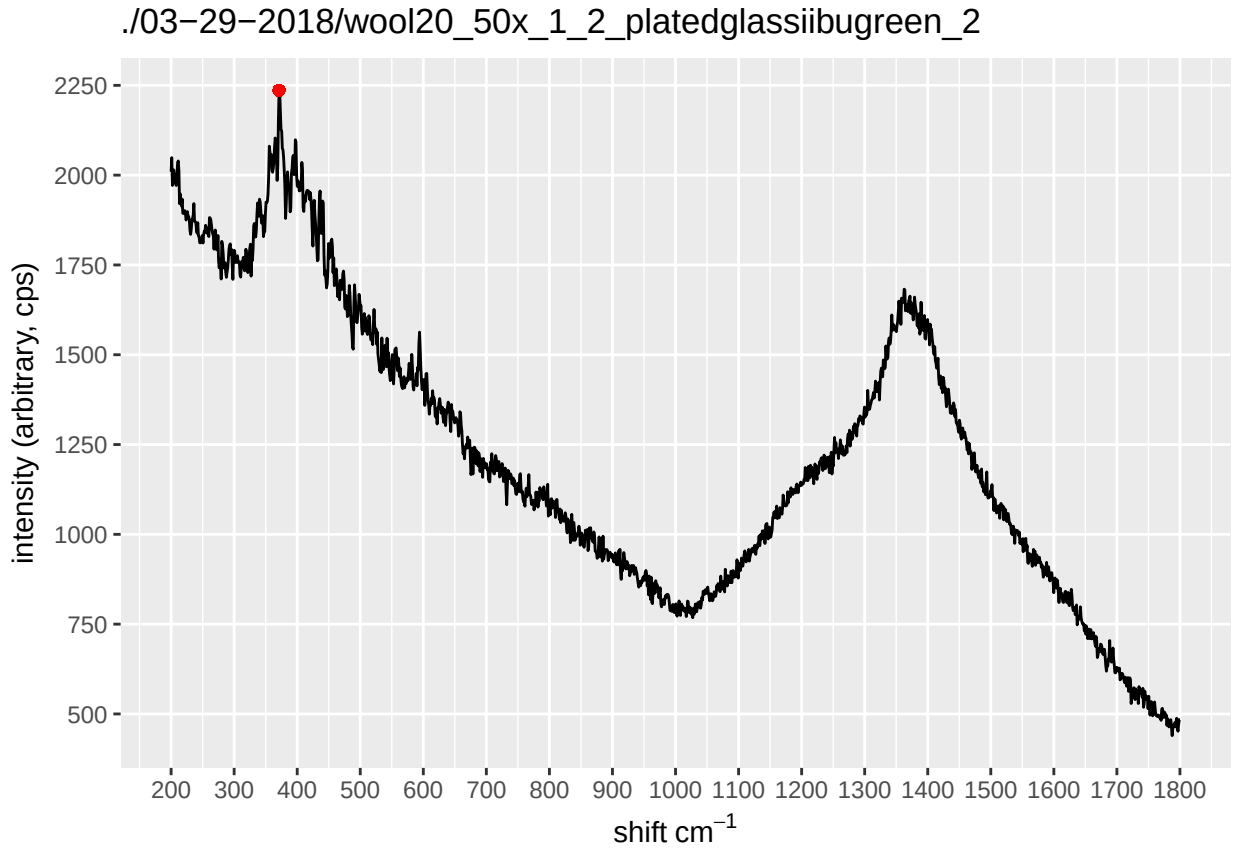
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_2
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

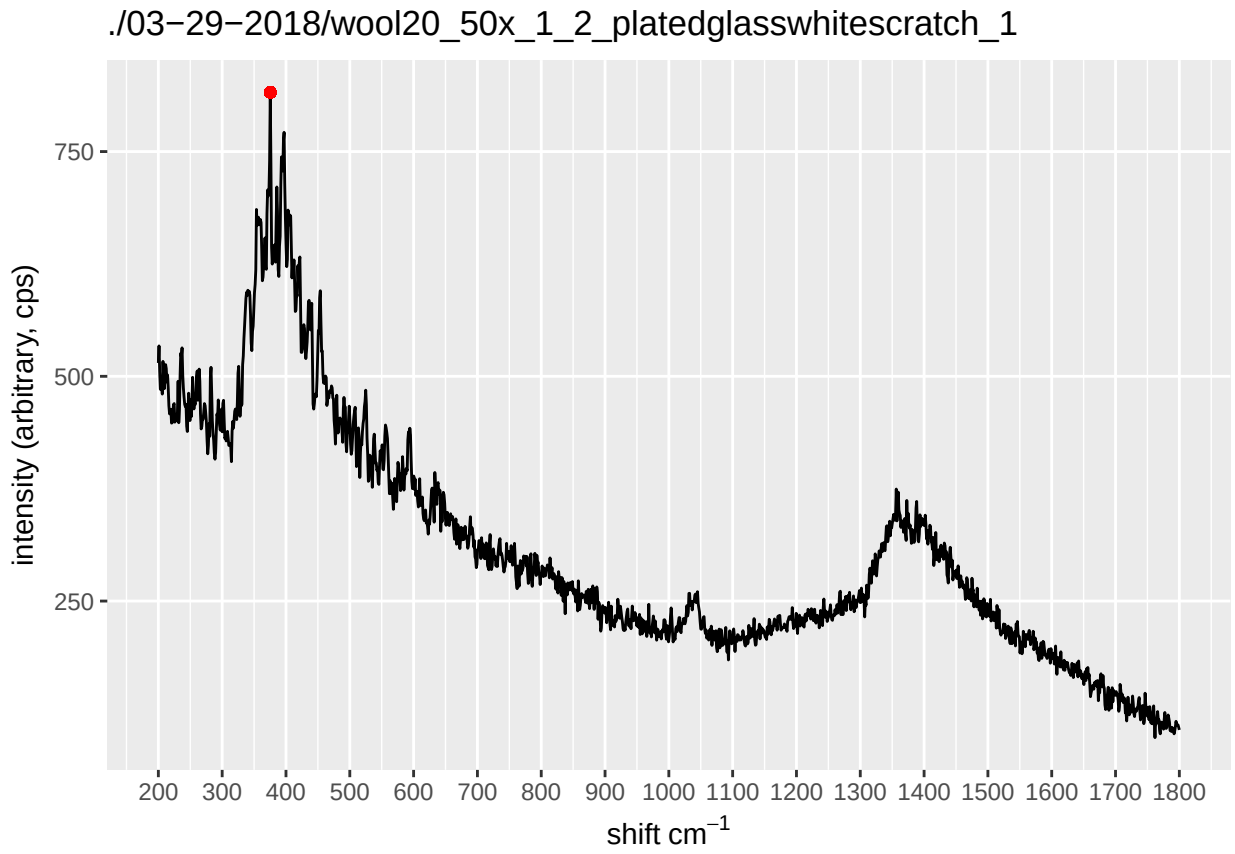
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_1
intensity (arbitrary, cps)
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

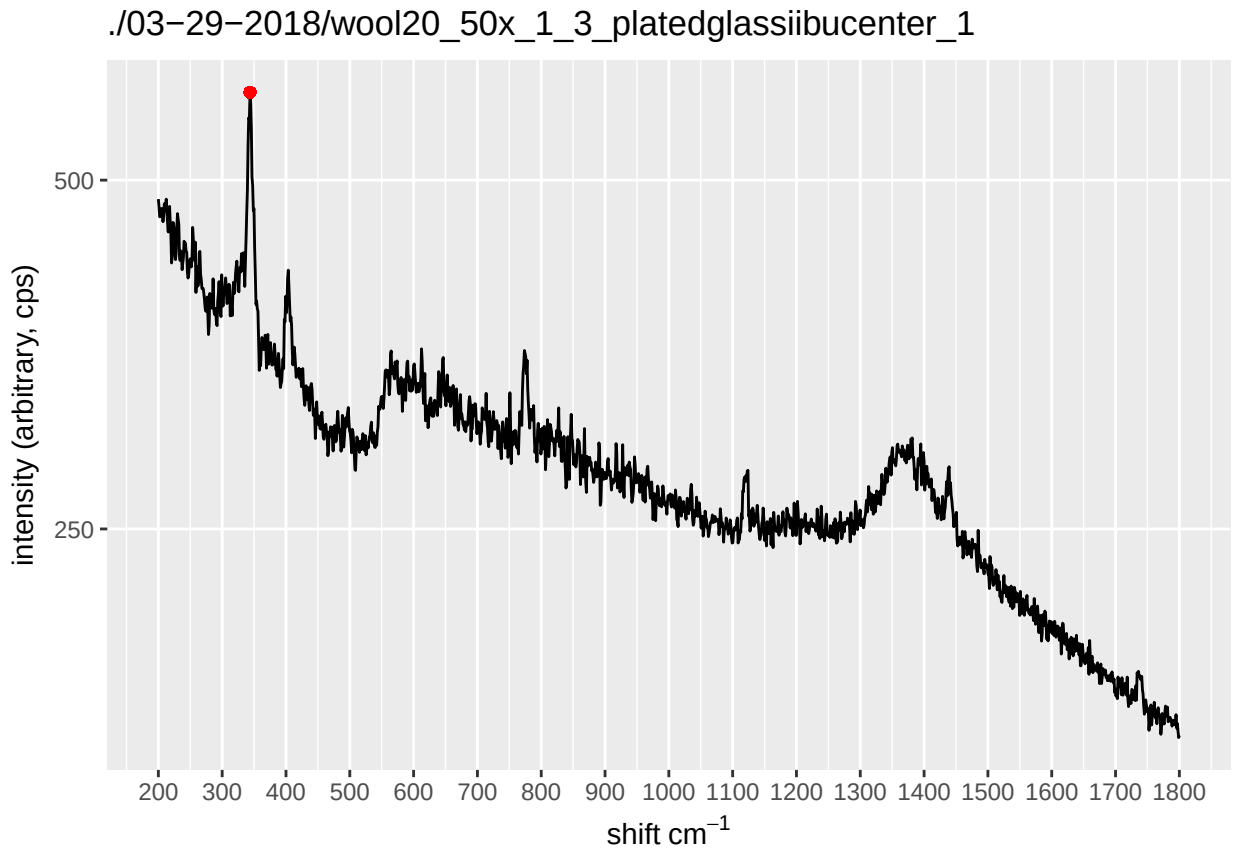
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_2
intensity (arbitrary, cps)
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

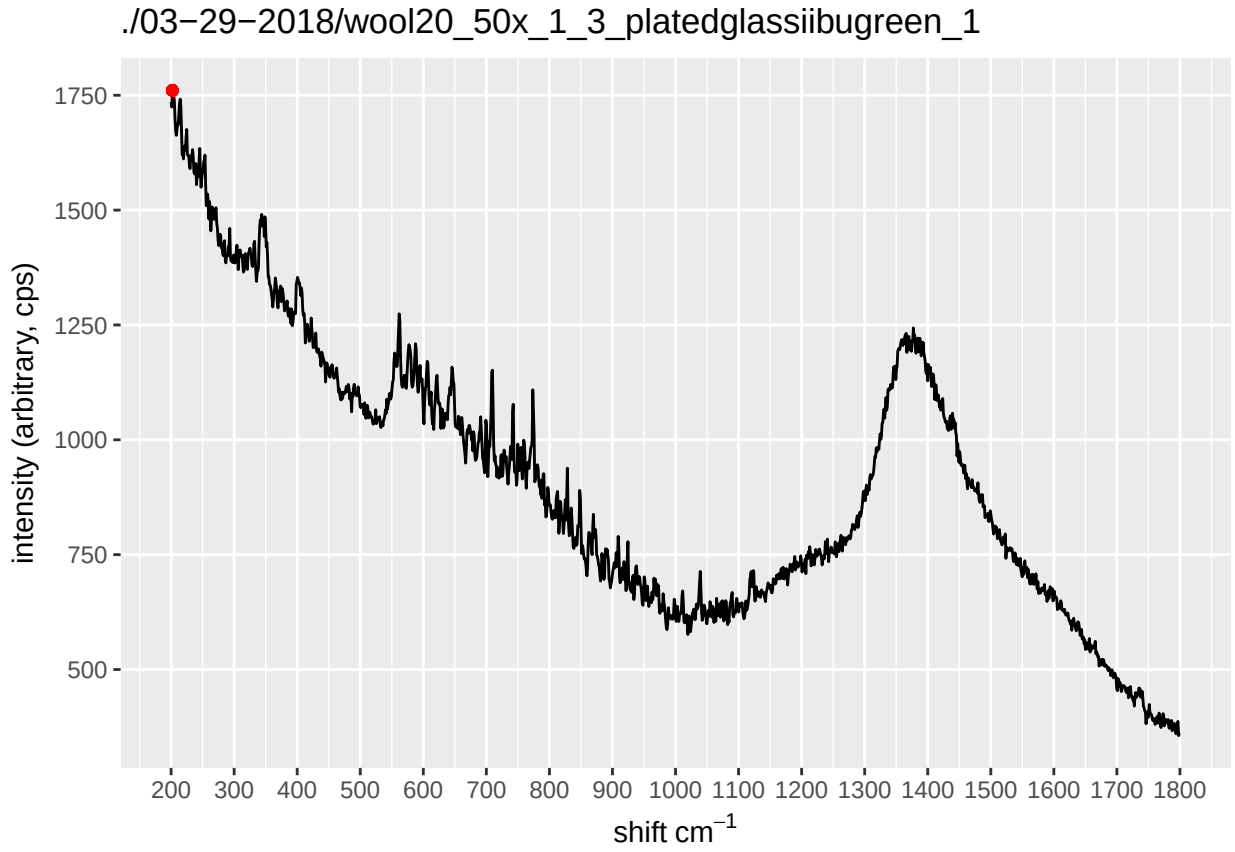
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglasswhitescratch_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

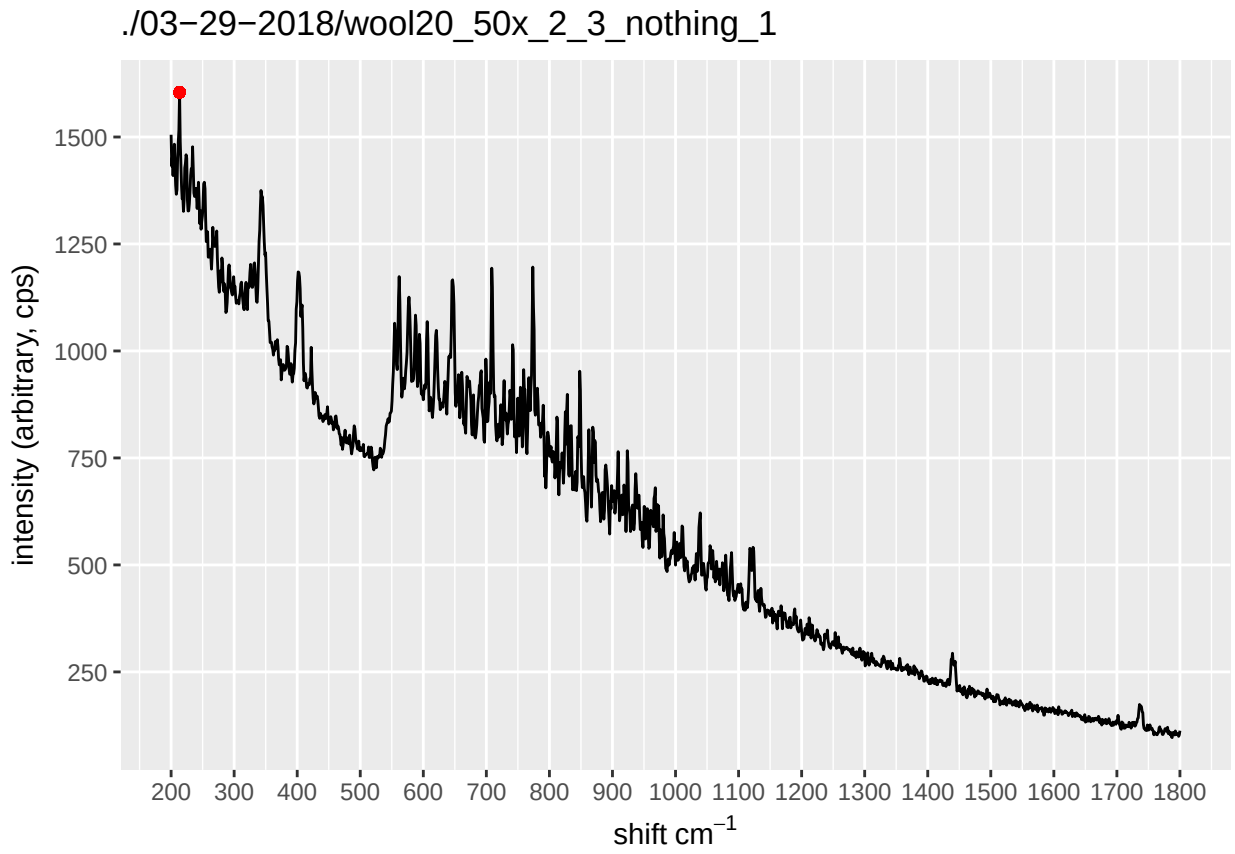
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibucenter_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

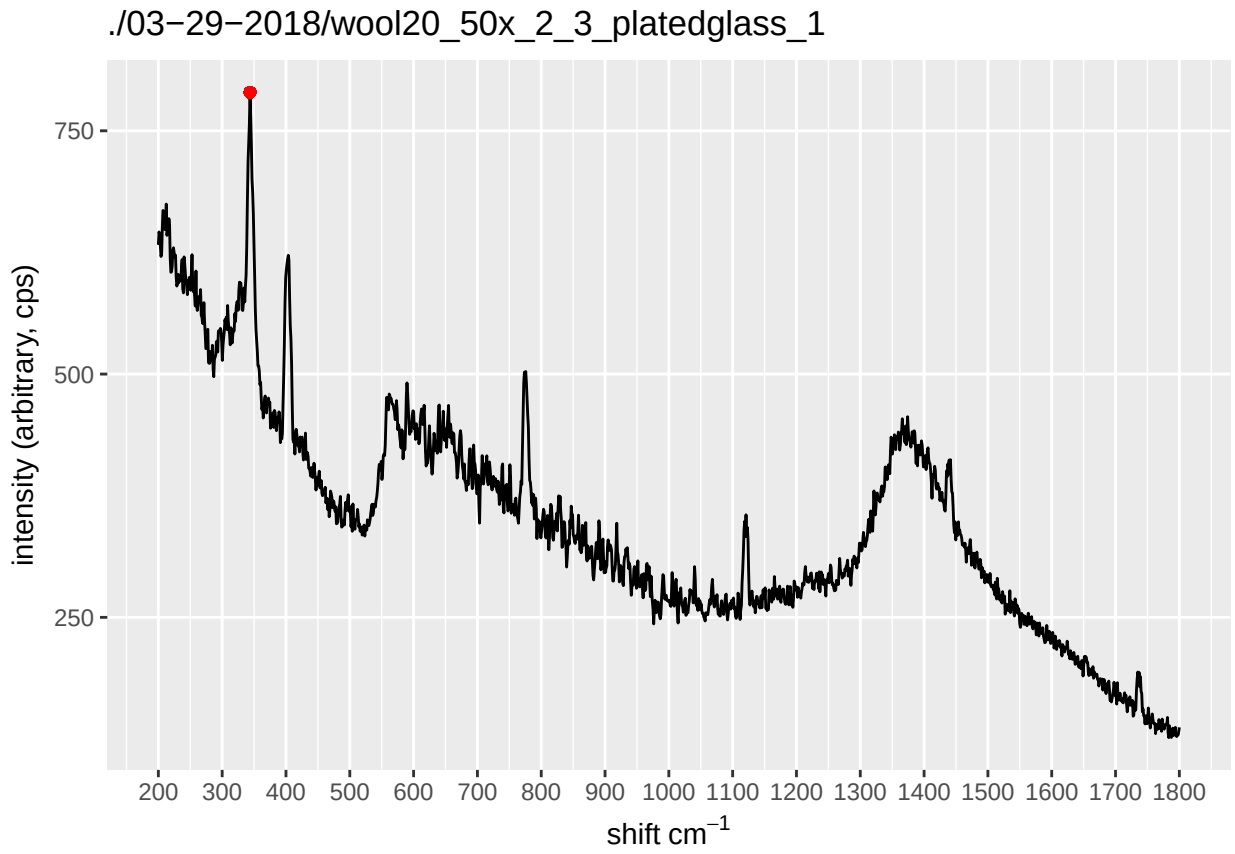
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibugreen_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

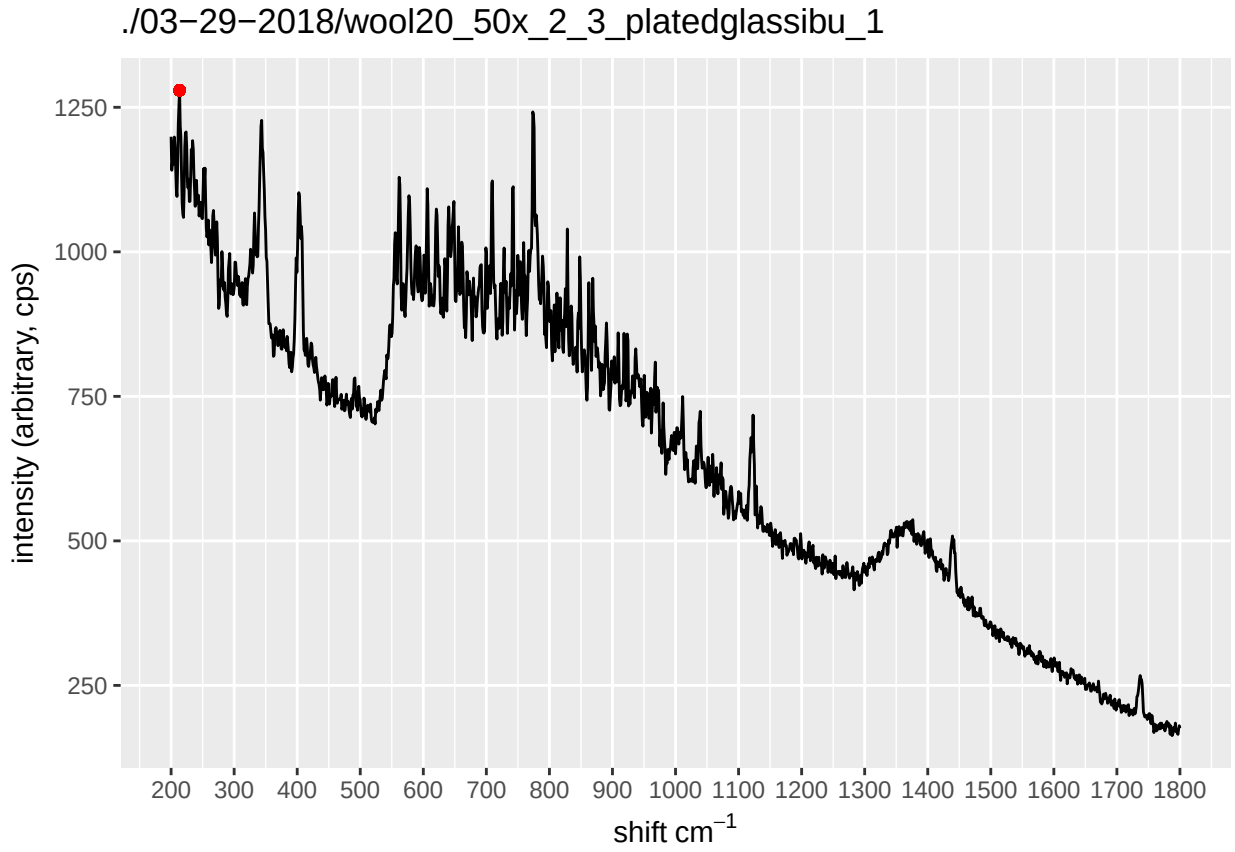
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_nothing_1
intensity (arbitrary, cps)
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

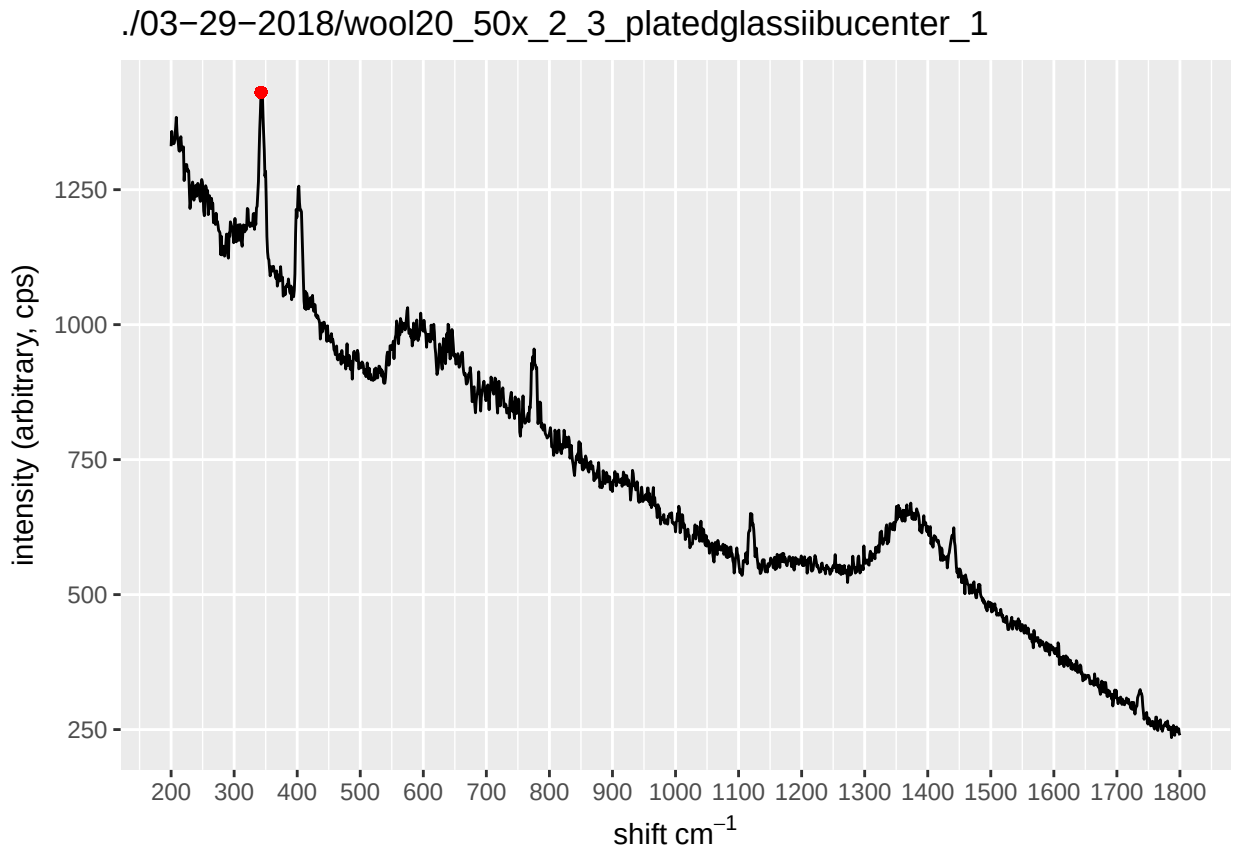
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglass_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

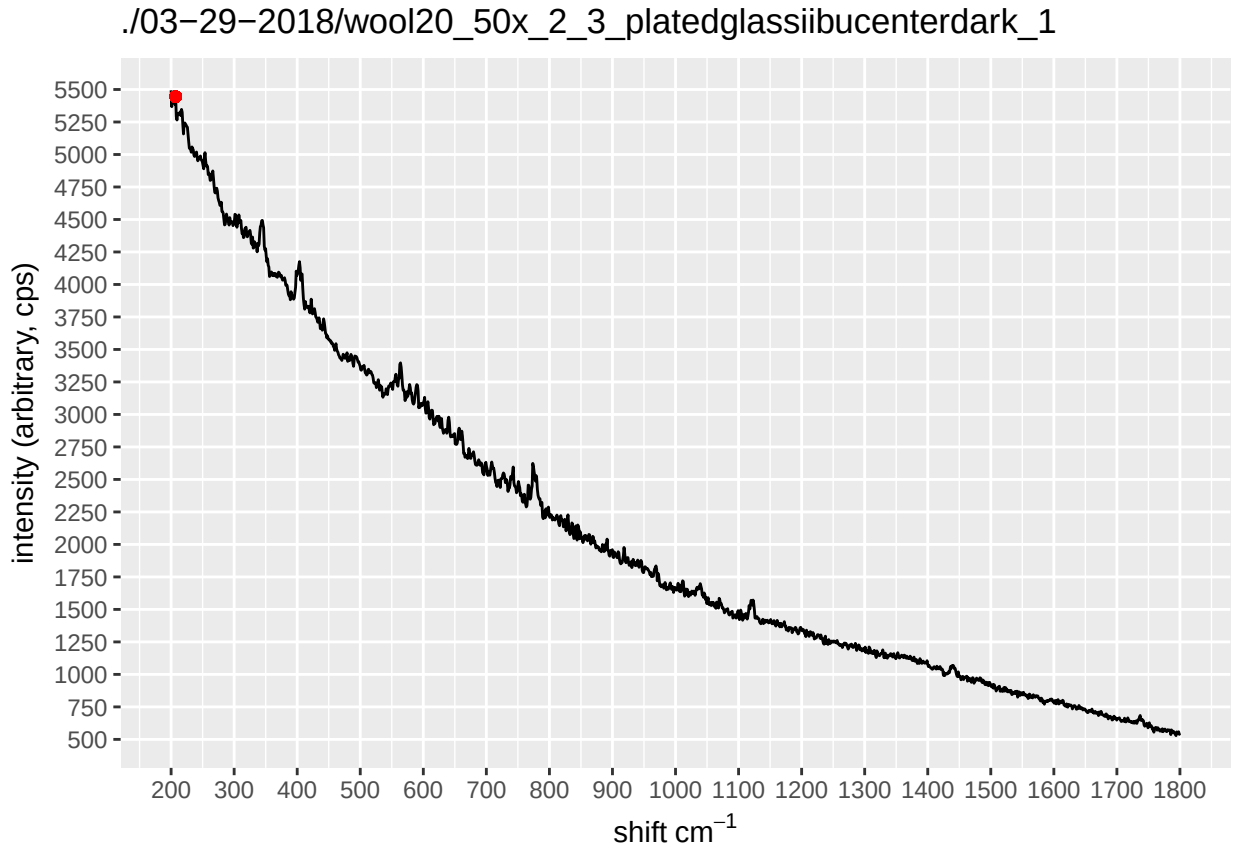
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

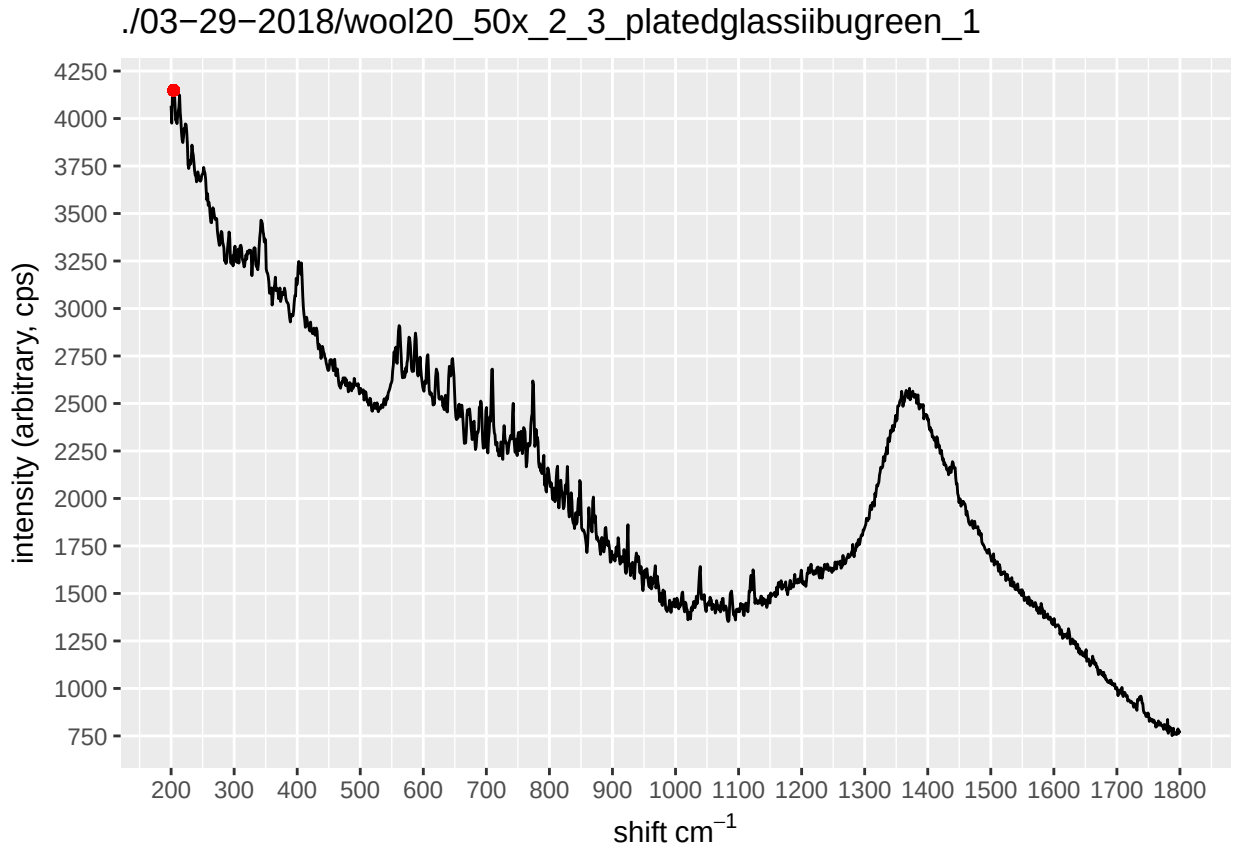
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenter_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

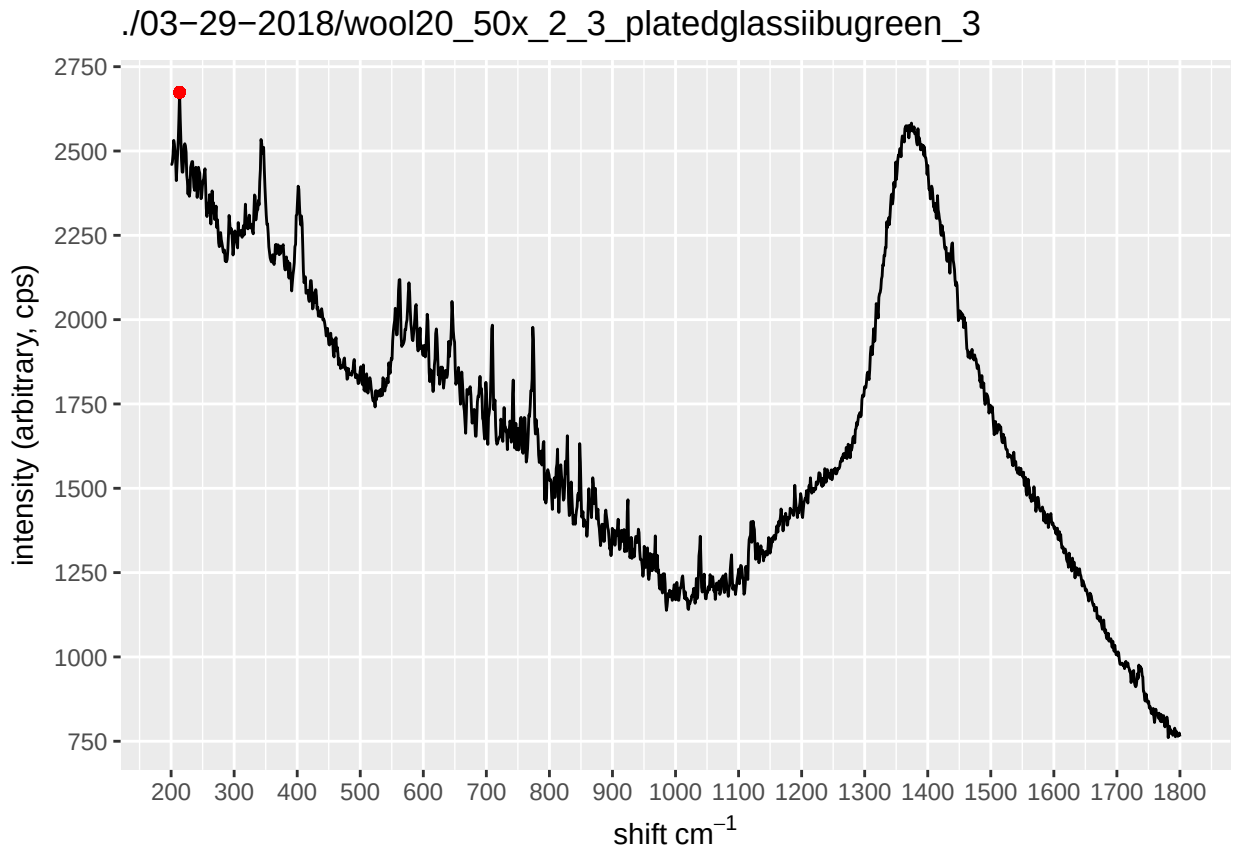
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

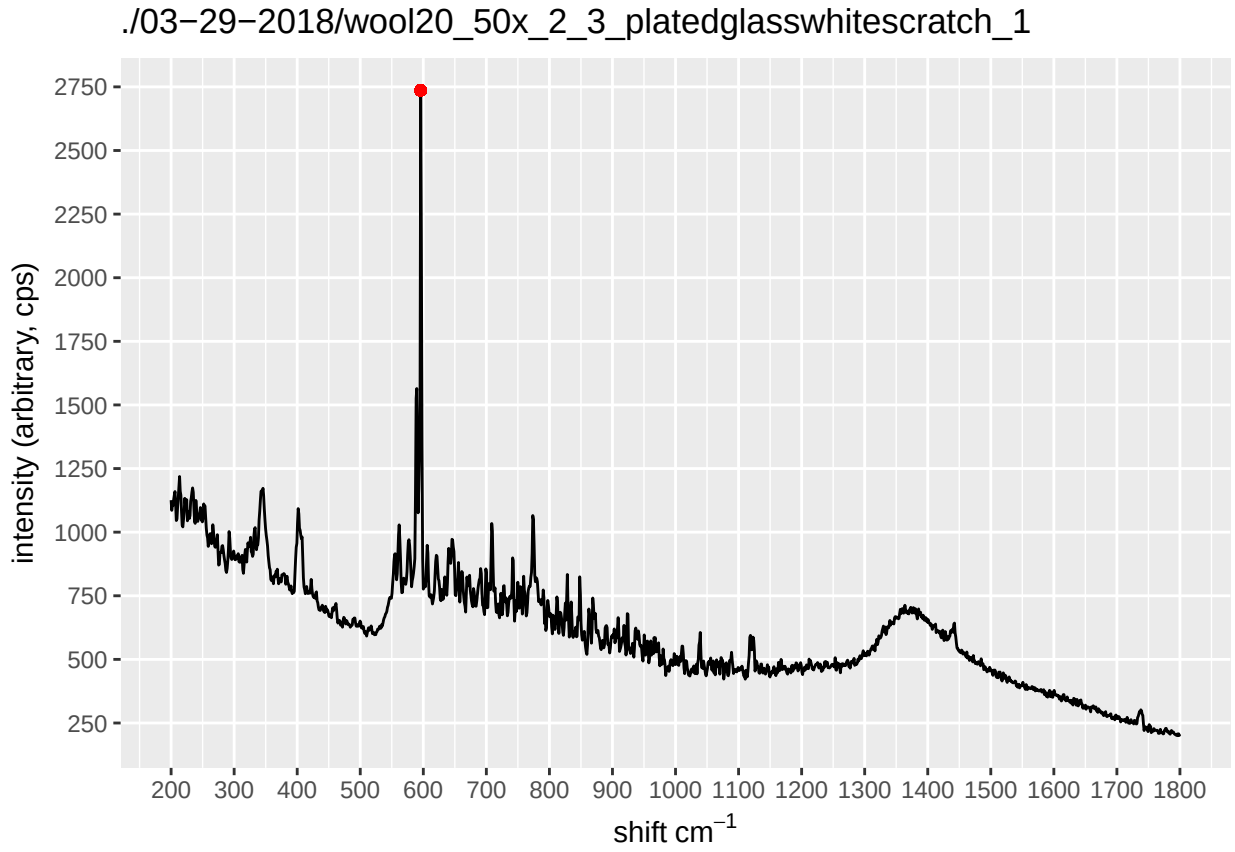
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibugreen_1
intensity (arbitrary, cps)
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

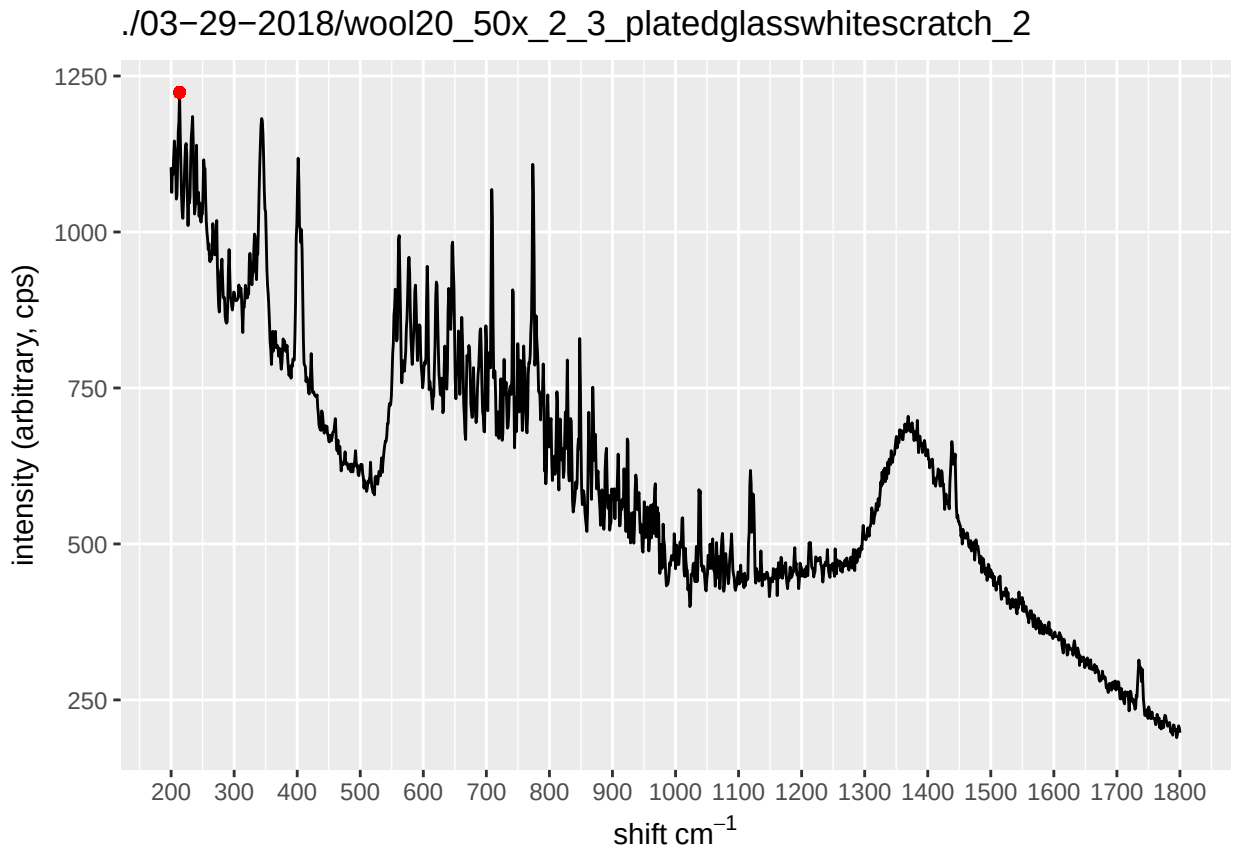
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibugreen_3
intensity (arbitrary, cps)
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

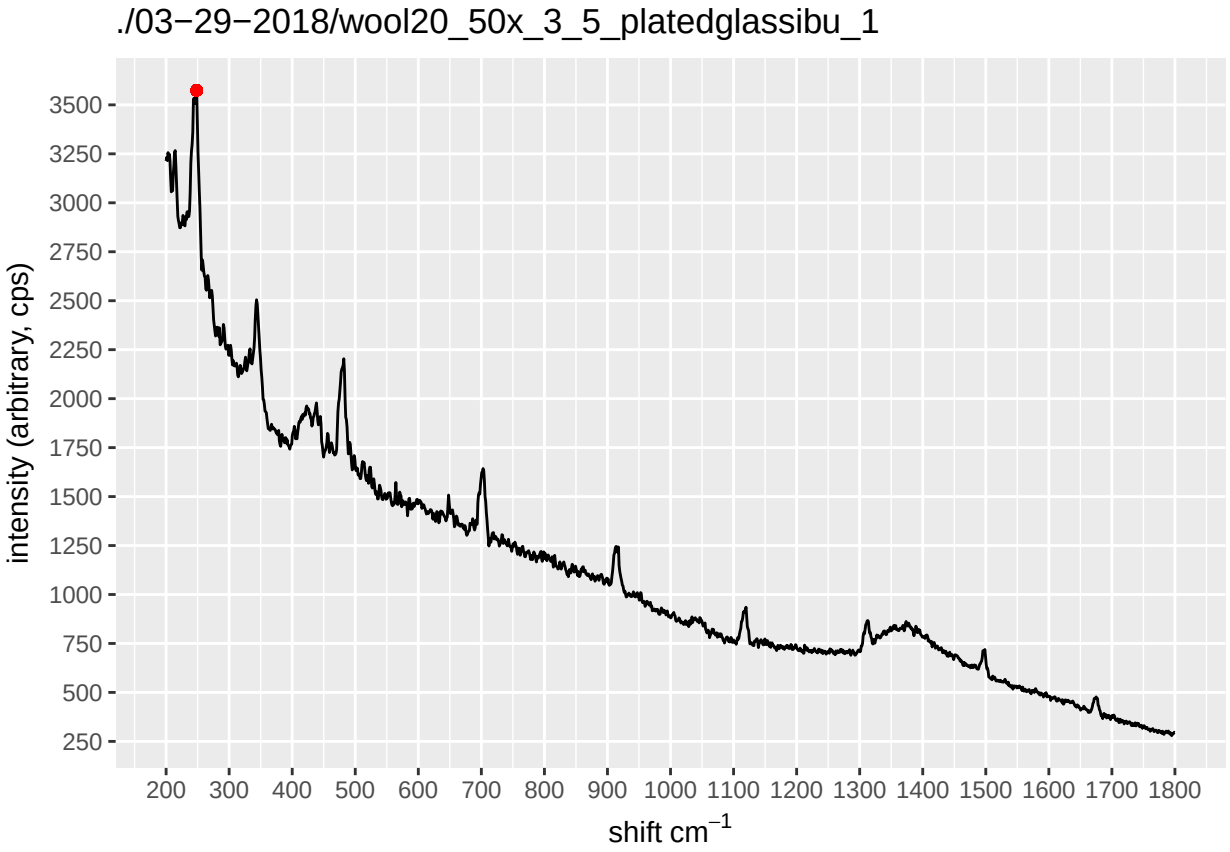
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglasswhitescratch_1
intensity (arbitrary, cps)
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

```
##
## $plot
```

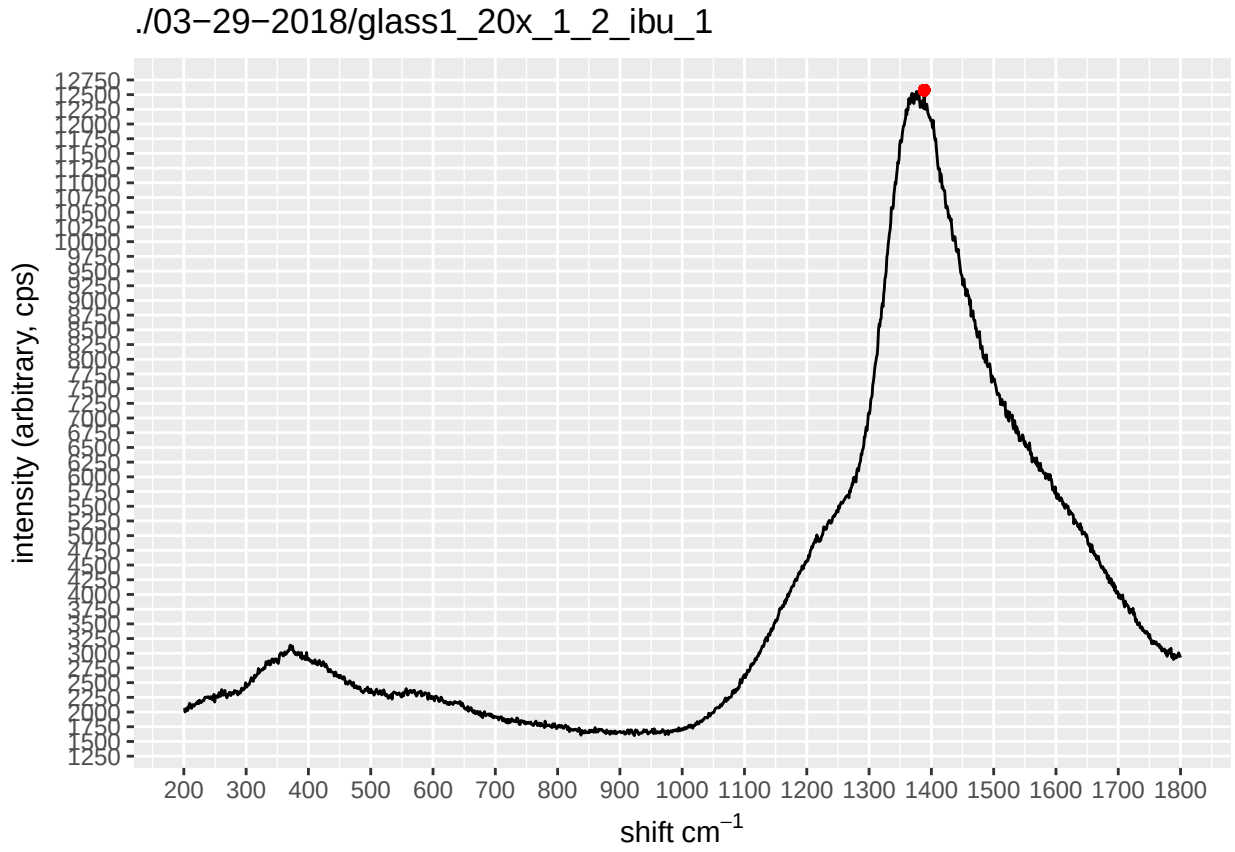

./03−29−2018/wool20_50x_2_3_platedglasswhitescratch_2
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

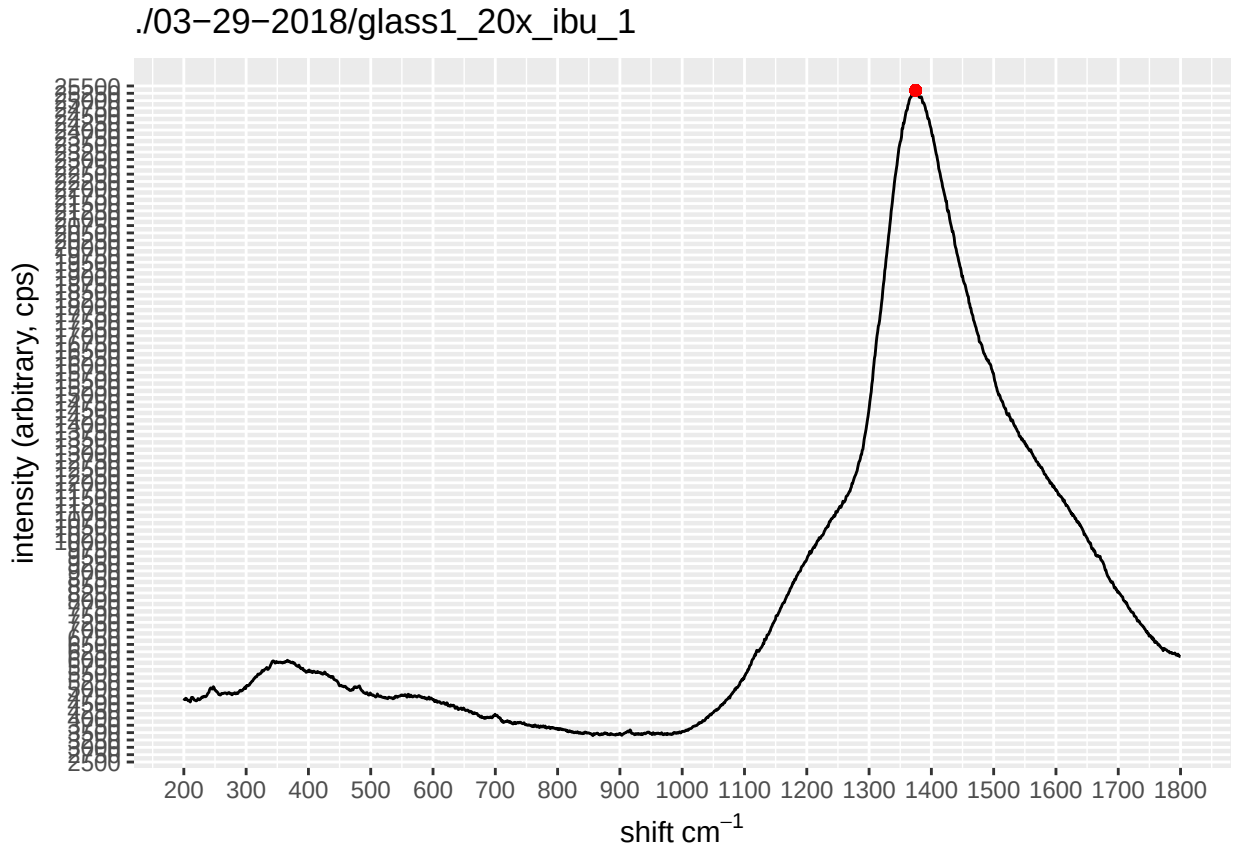

./03−29−2018/wool20_50x_3_5_platedglassibu_1
intensity (arbitrary, cps)
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

20x

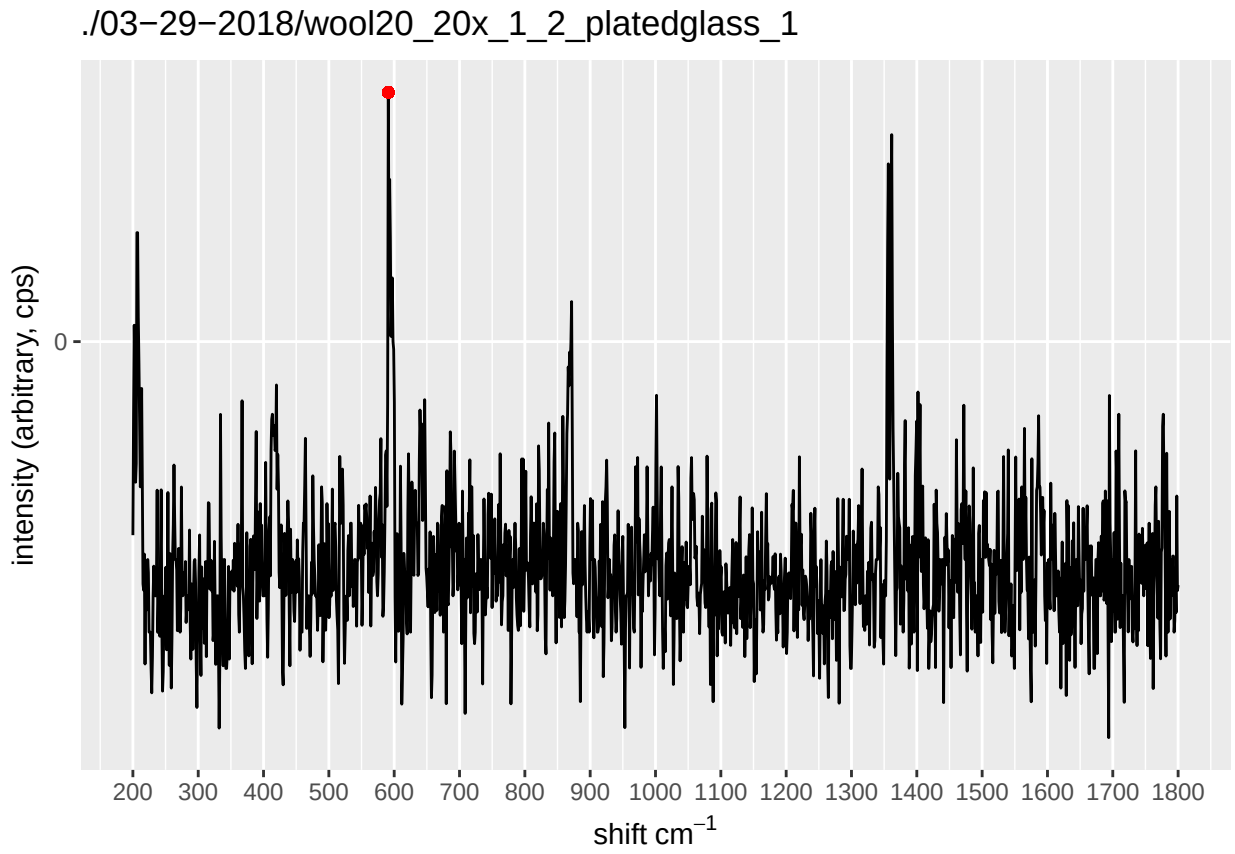
```
## $plot
```


./03−29−2018/glass1_20x_1_2_ibu_1
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

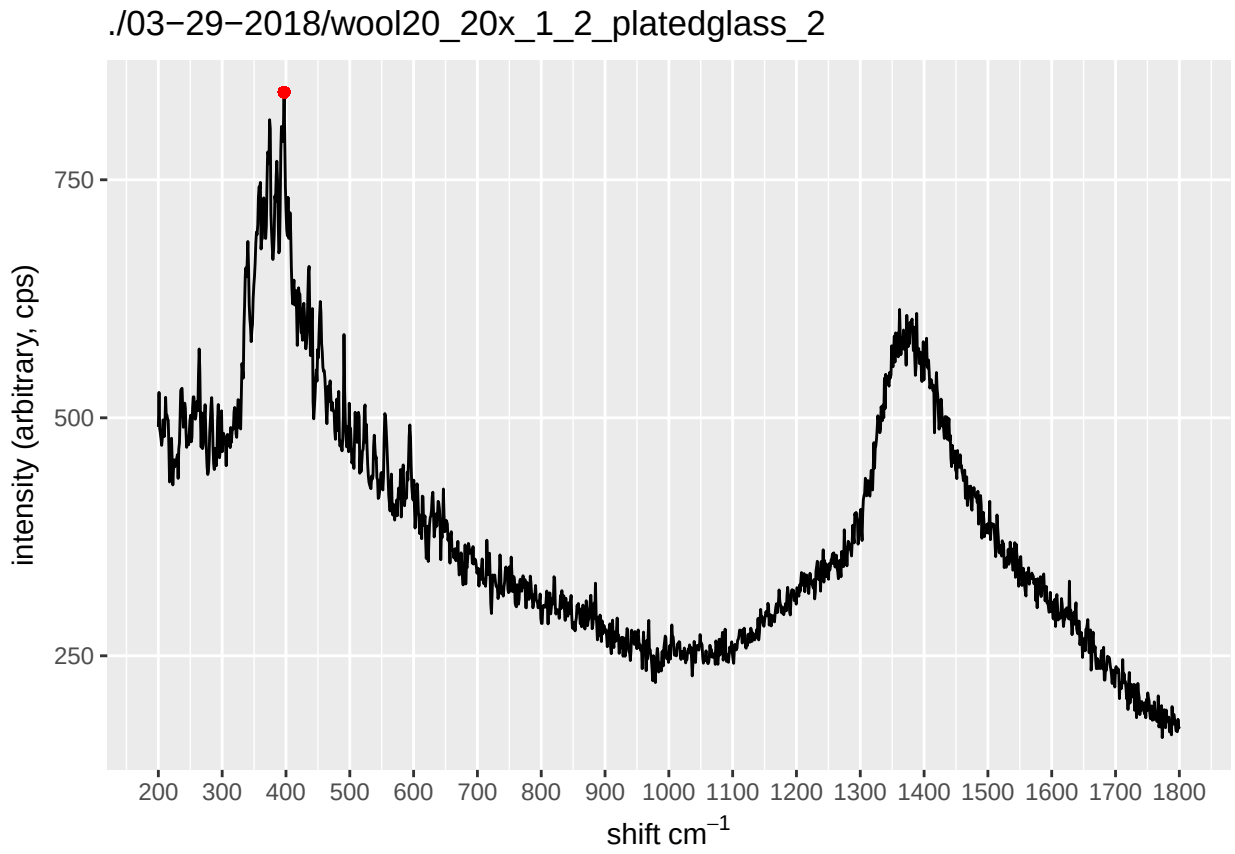
```
##
## $plot
```


./03−29−2018/glass1_20x_ibu_1
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

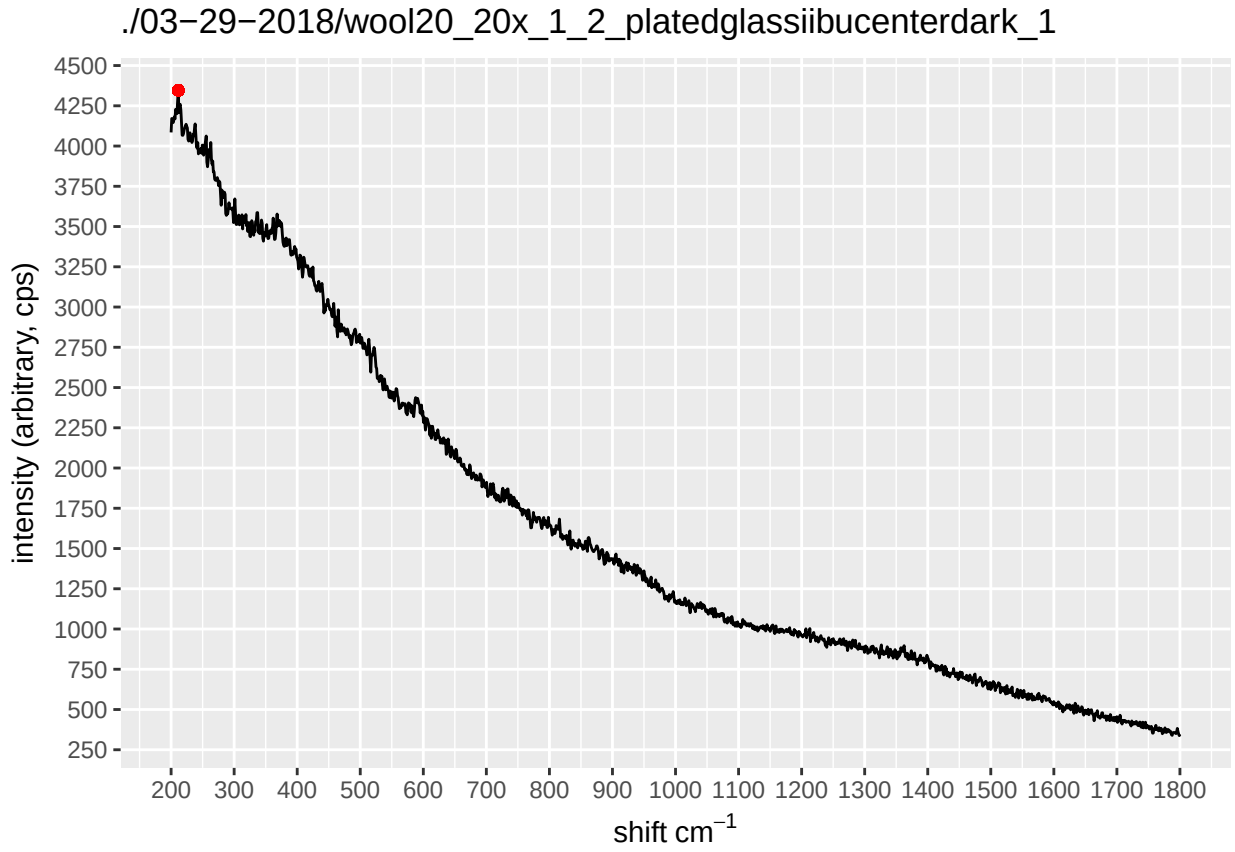
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_1
intensity (arbitrary, cps)
0
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

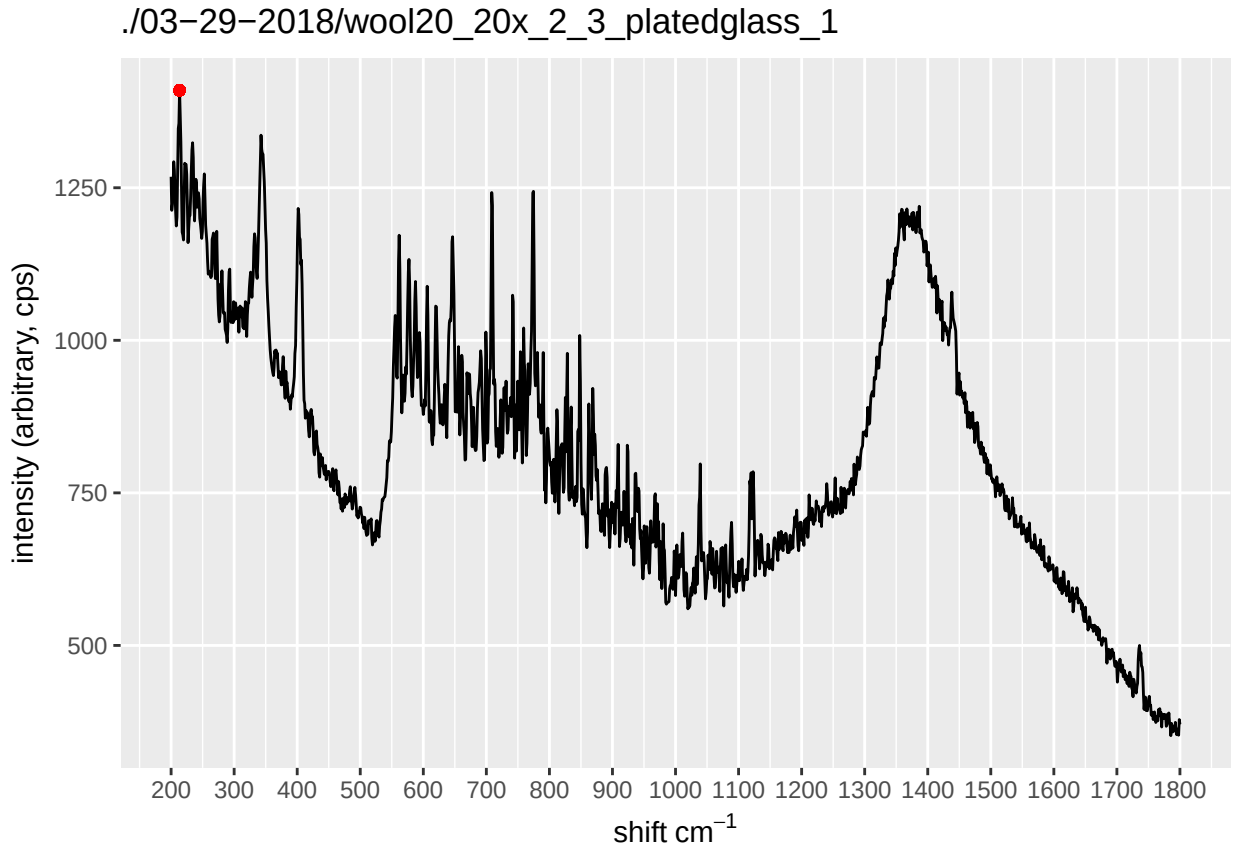
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_2
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

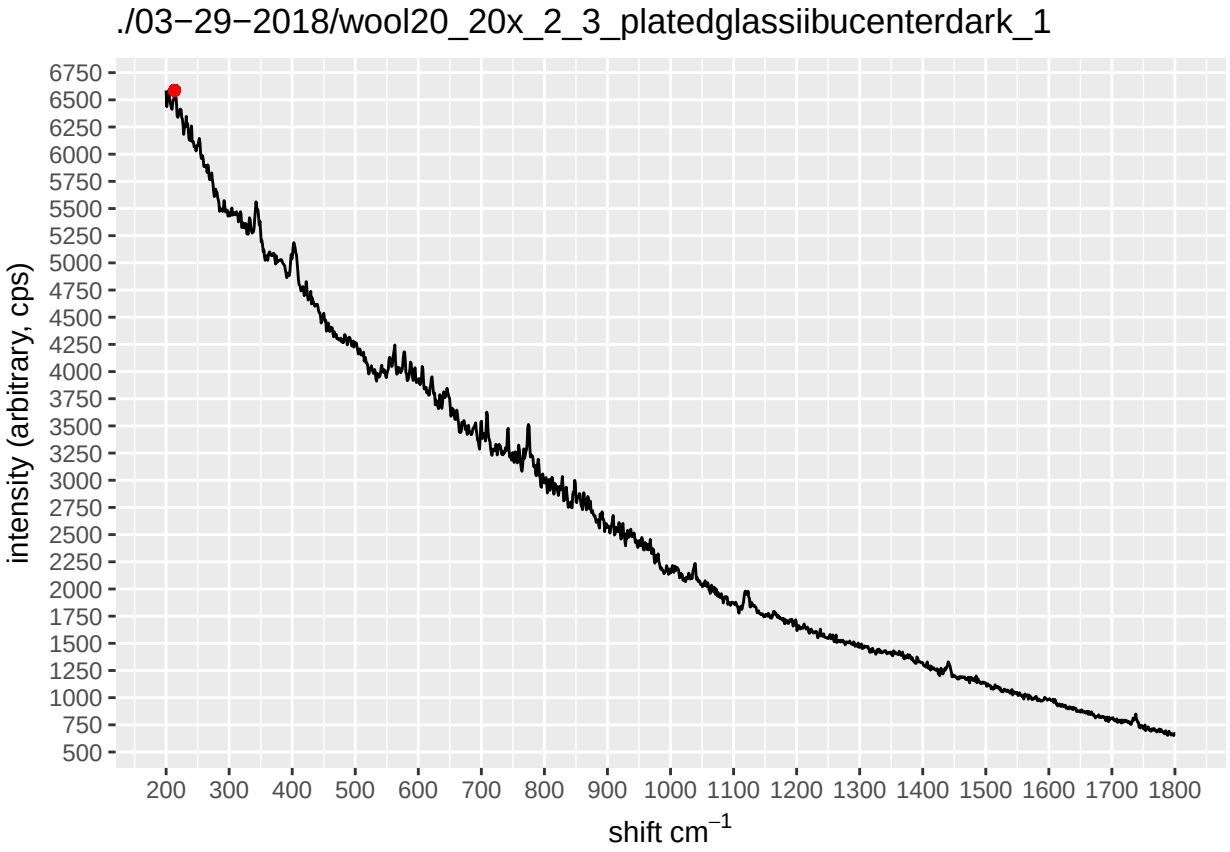
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

```
##
## $plot
```

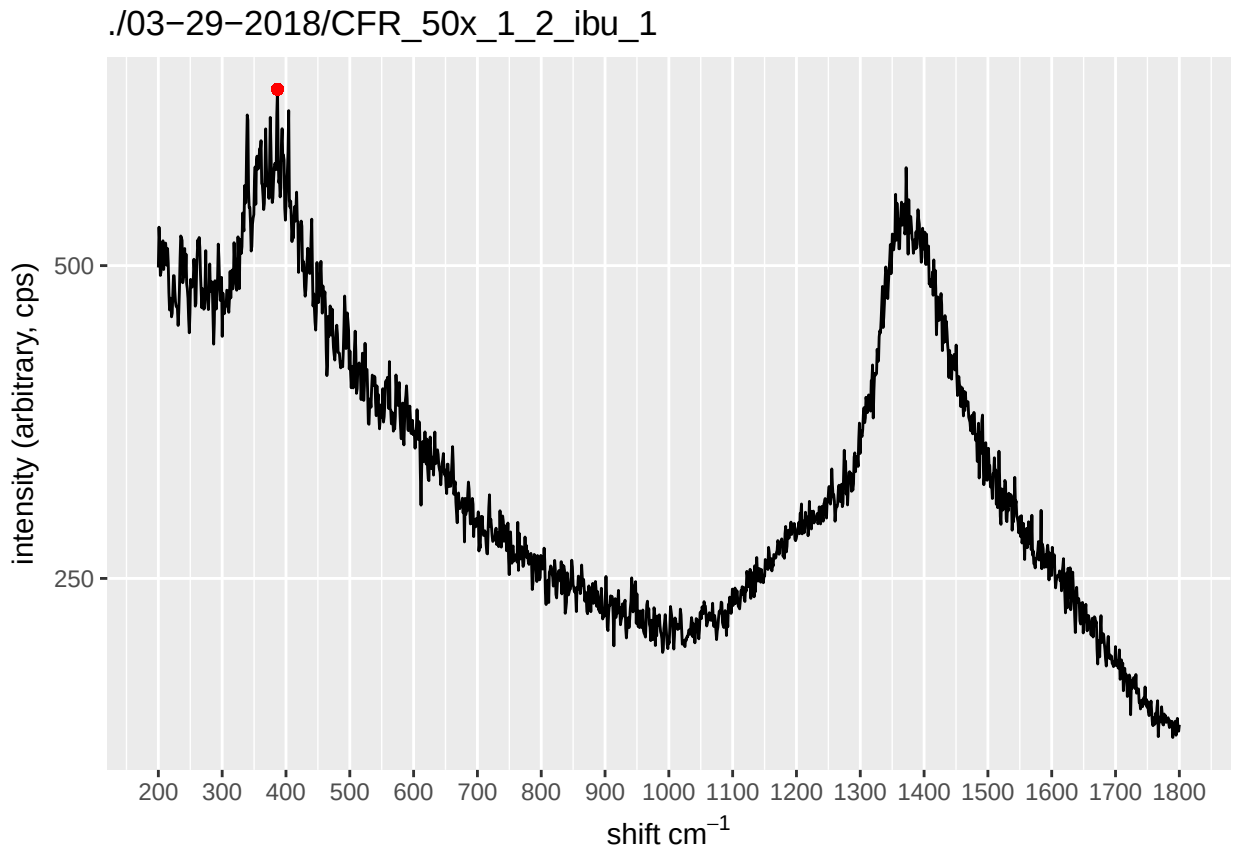

./03−29−2018/wool20_20x_2_3_platedglass_1
intensity (arbitrary, cps)
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

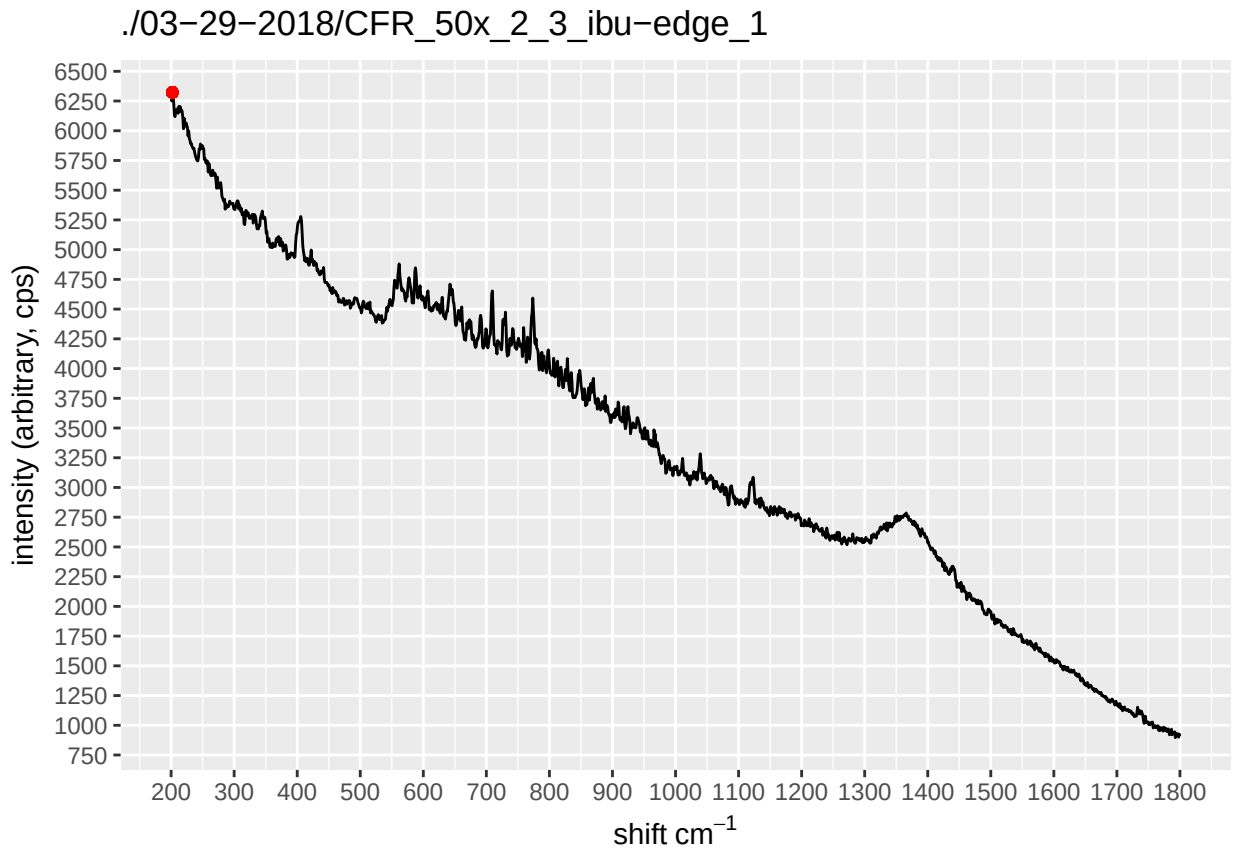

./03−29−2018/wool20_20x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

50x

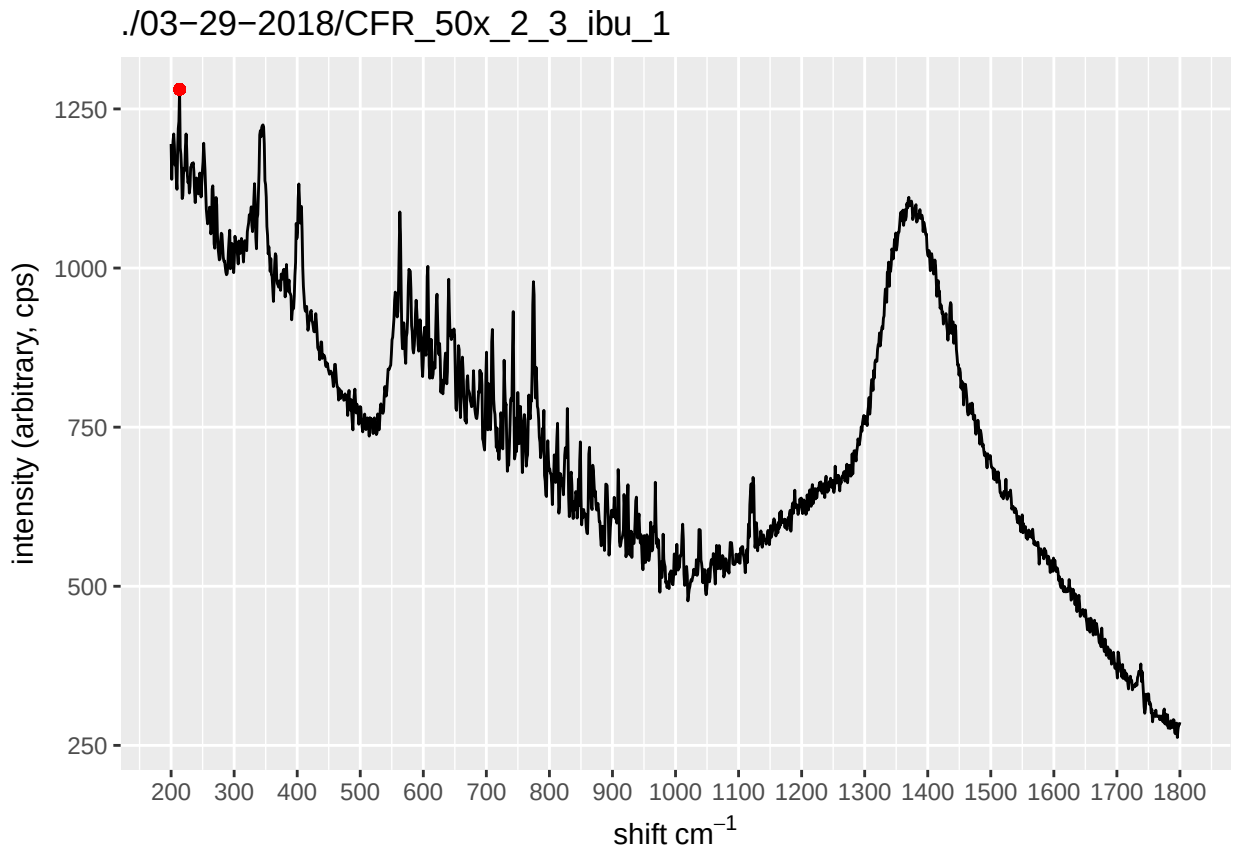
```
## $plot
```


./03−29−2018/CFR_50x_1_2_ibu_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

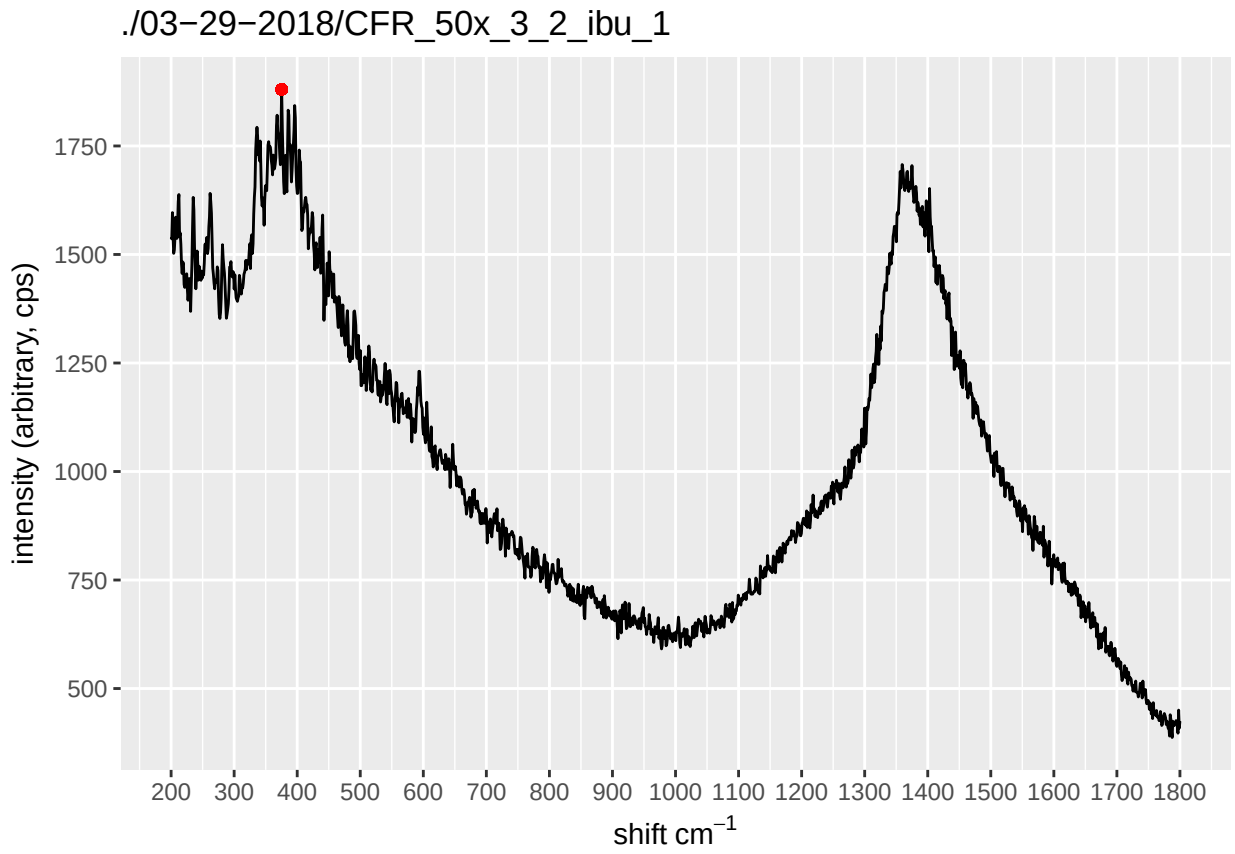
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu−edge_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

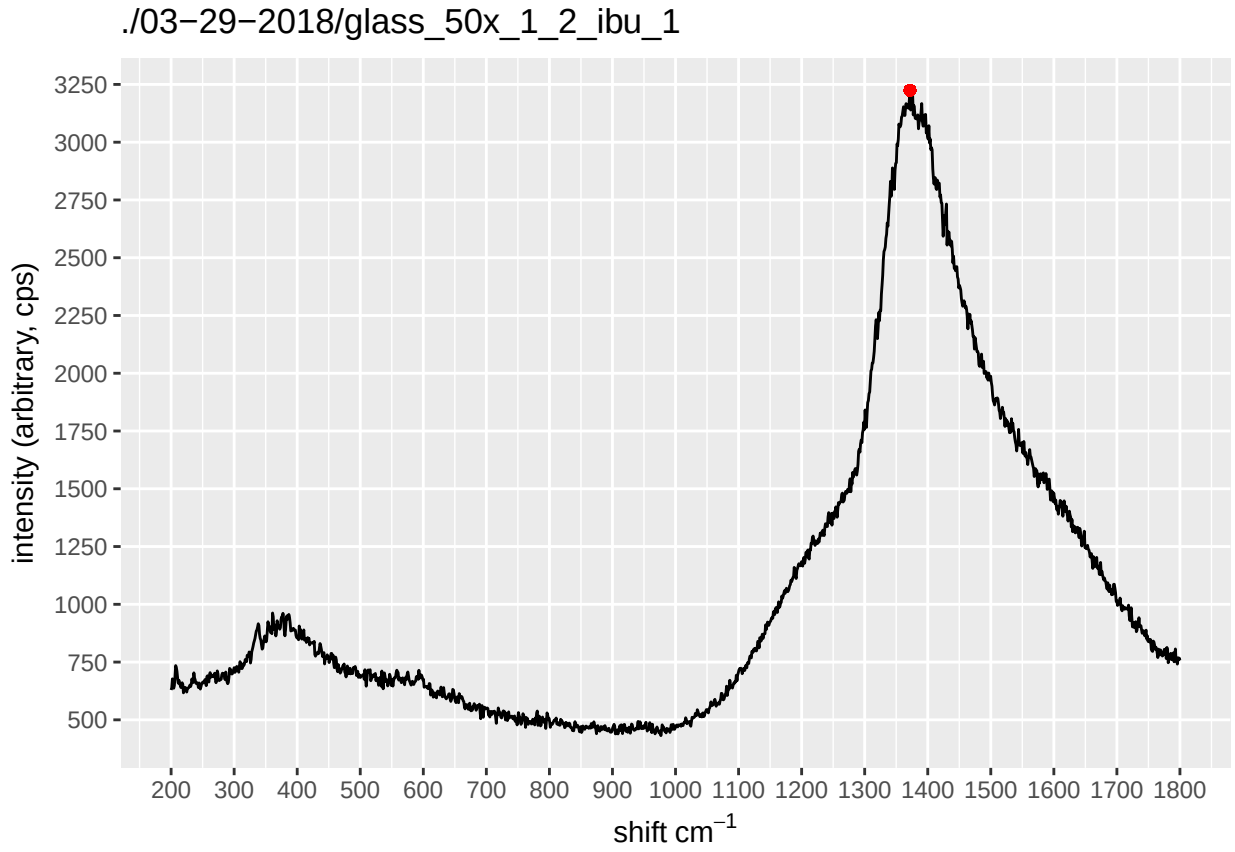
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

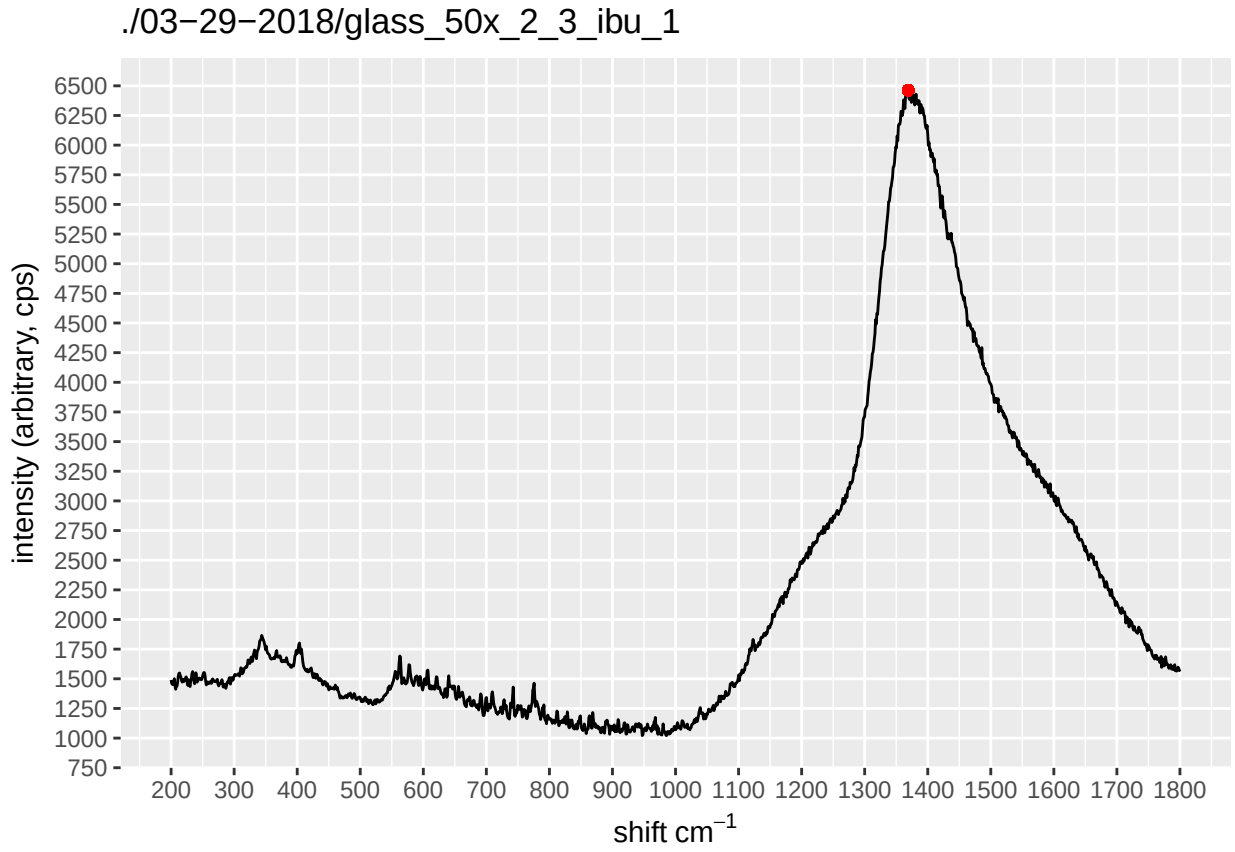
```
##
## $plot
```


./03−29−2018/CFR_50x_3_2_ibu_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

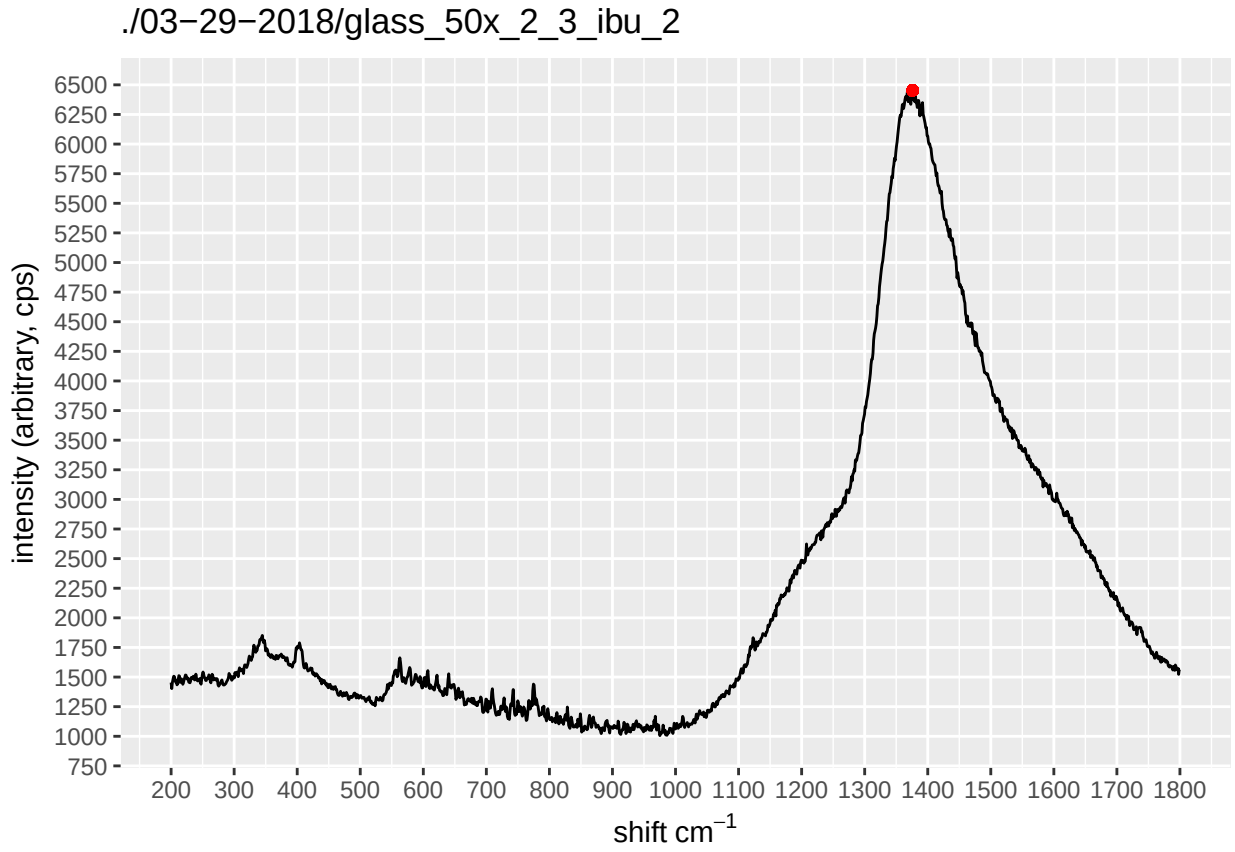
```
##
## $plot
```


./03−29−2018/glass_50x_1_2_ibu_1
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

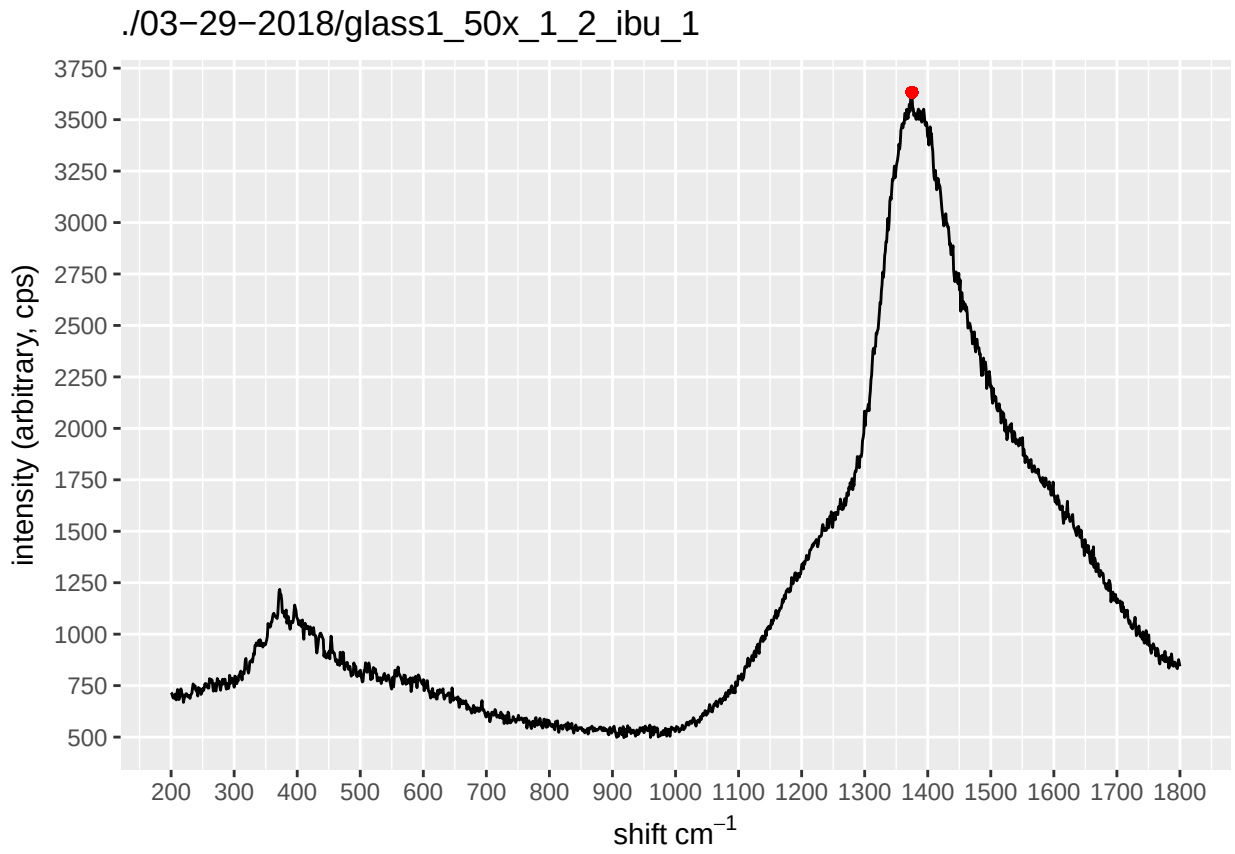
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

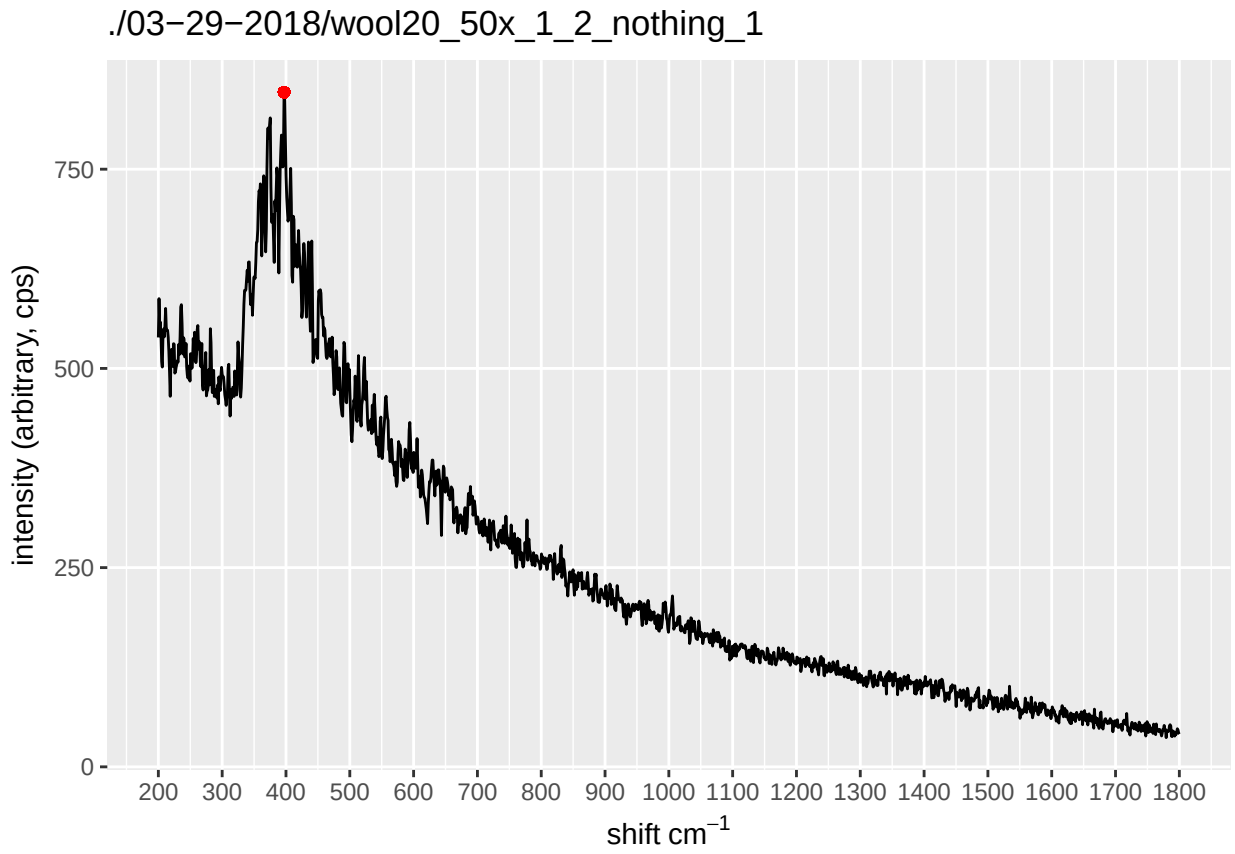
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_2
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

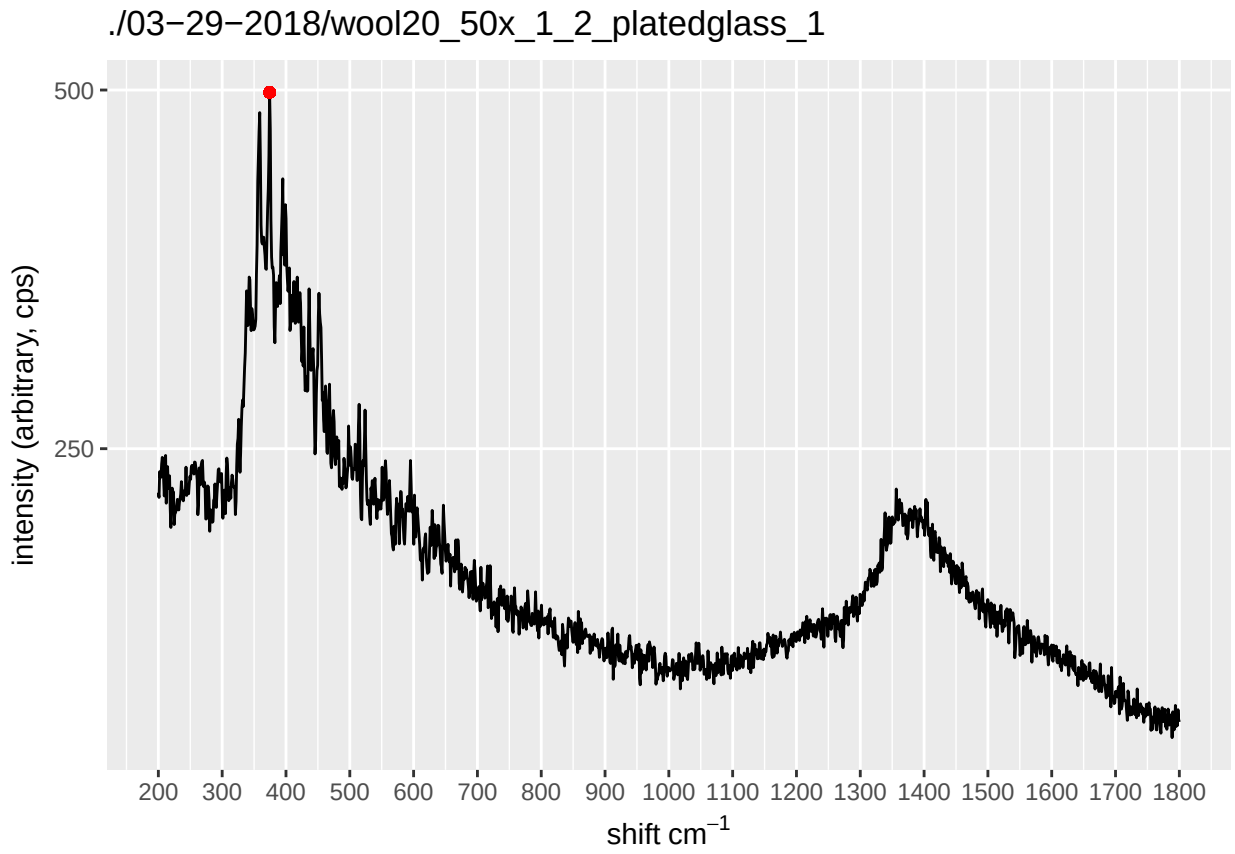
```
##
## $plot
```


./03−29−2018/glass1_50x_1_2_ibu_1
intensity (arbitrary, cps)
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

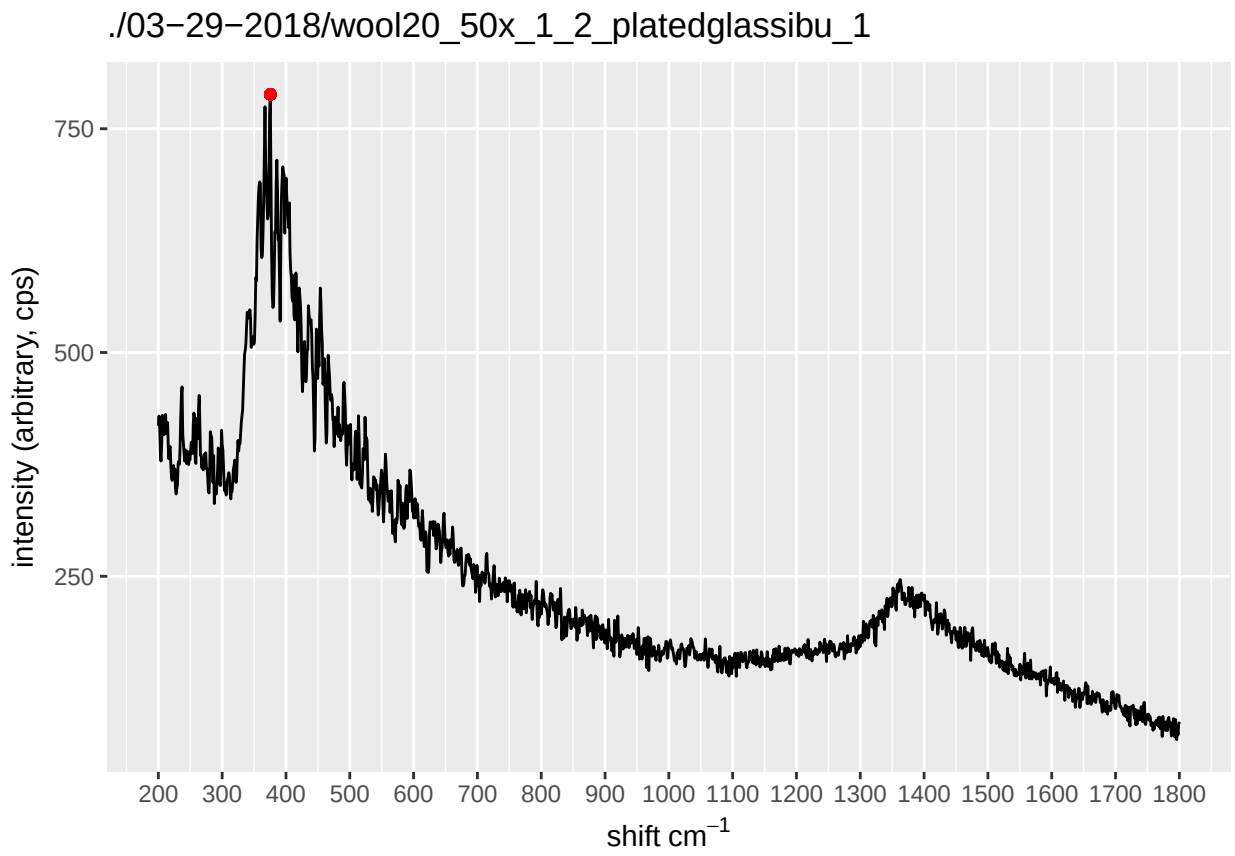
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_nothing_1
intensity (arbitrary, cps)
0
250
500
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

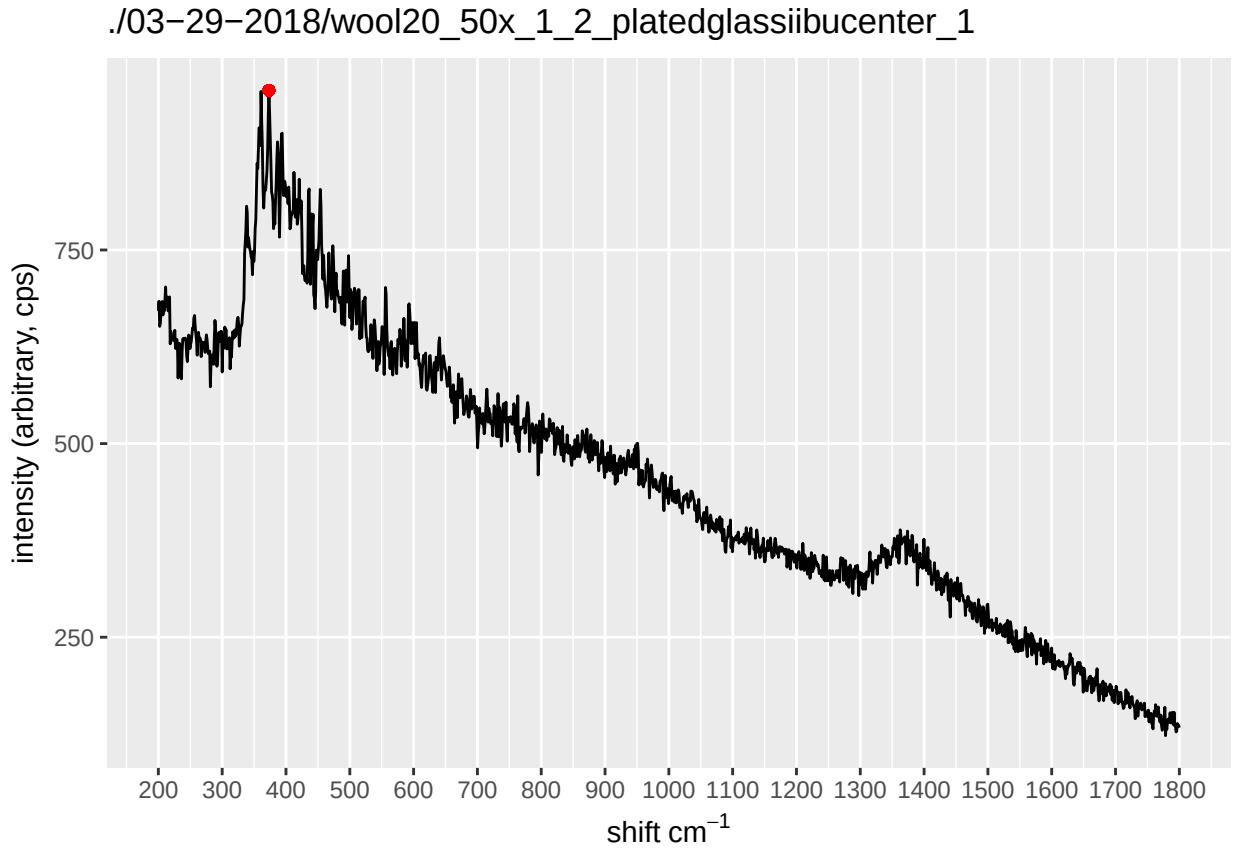
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglass_1
500
250
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

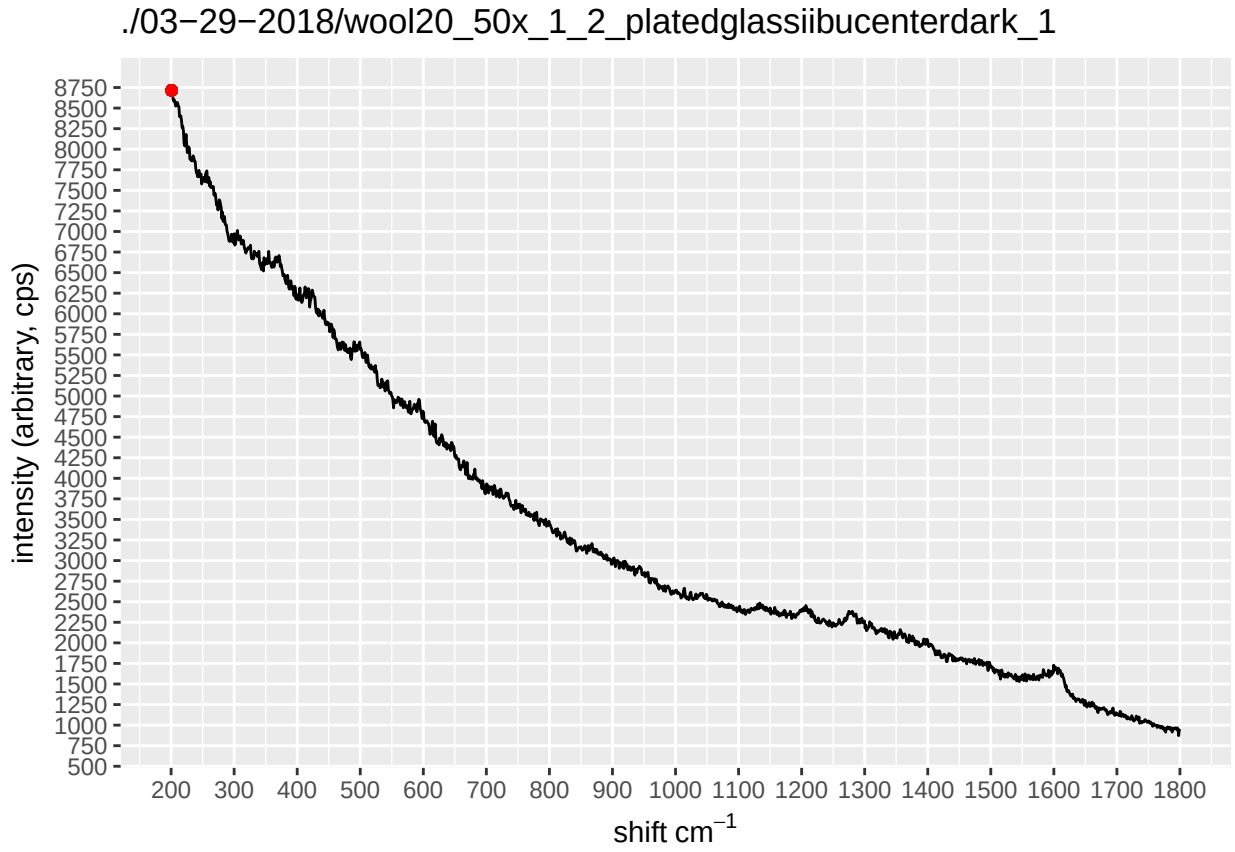
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassibu_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

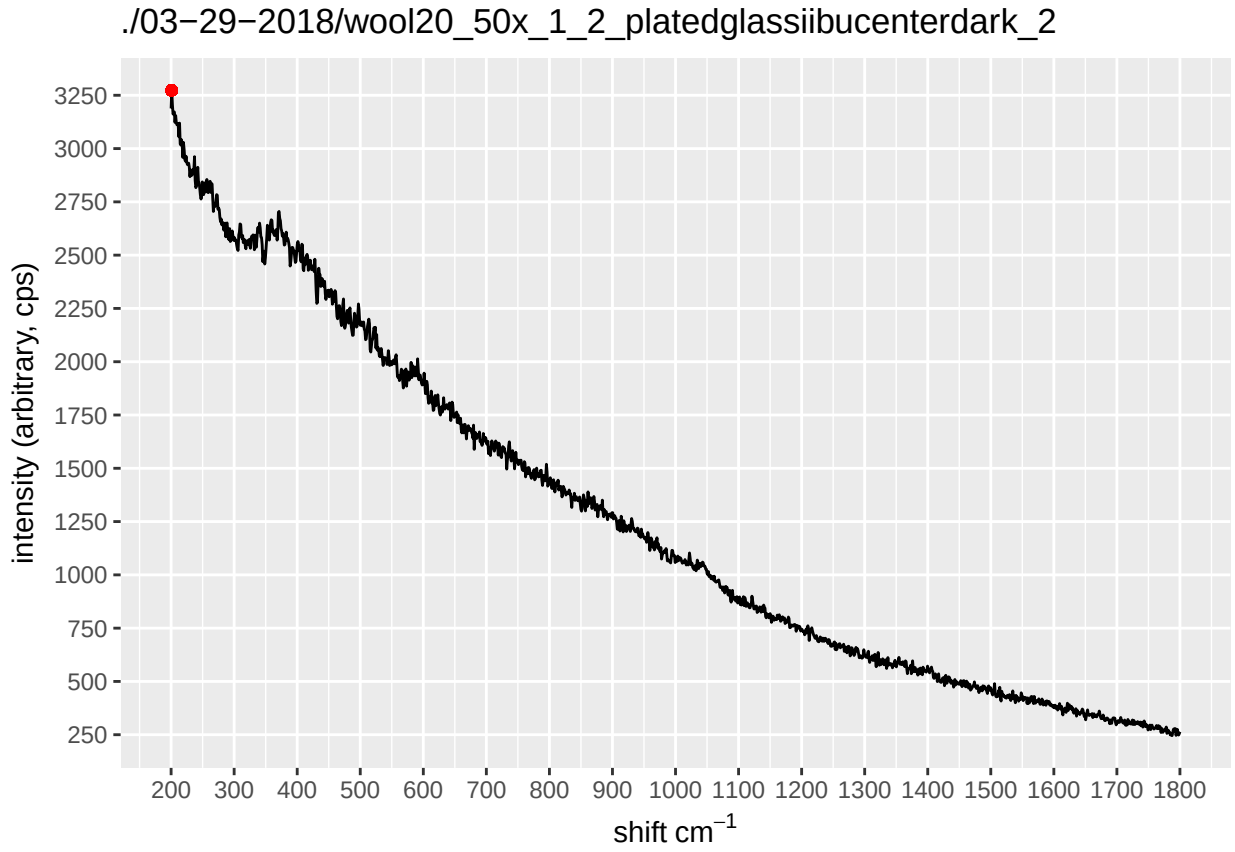
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenter_1
intensity (arbitrary, cps)
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

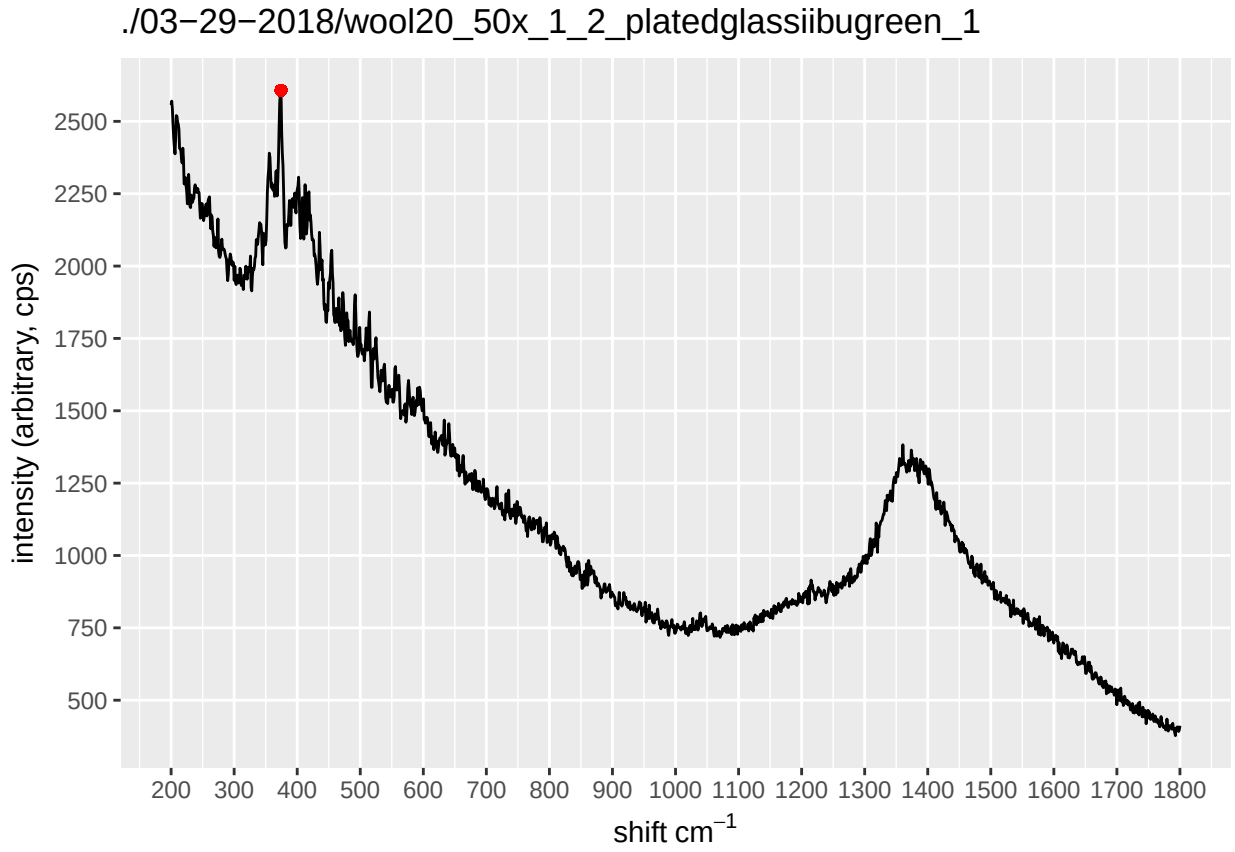
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

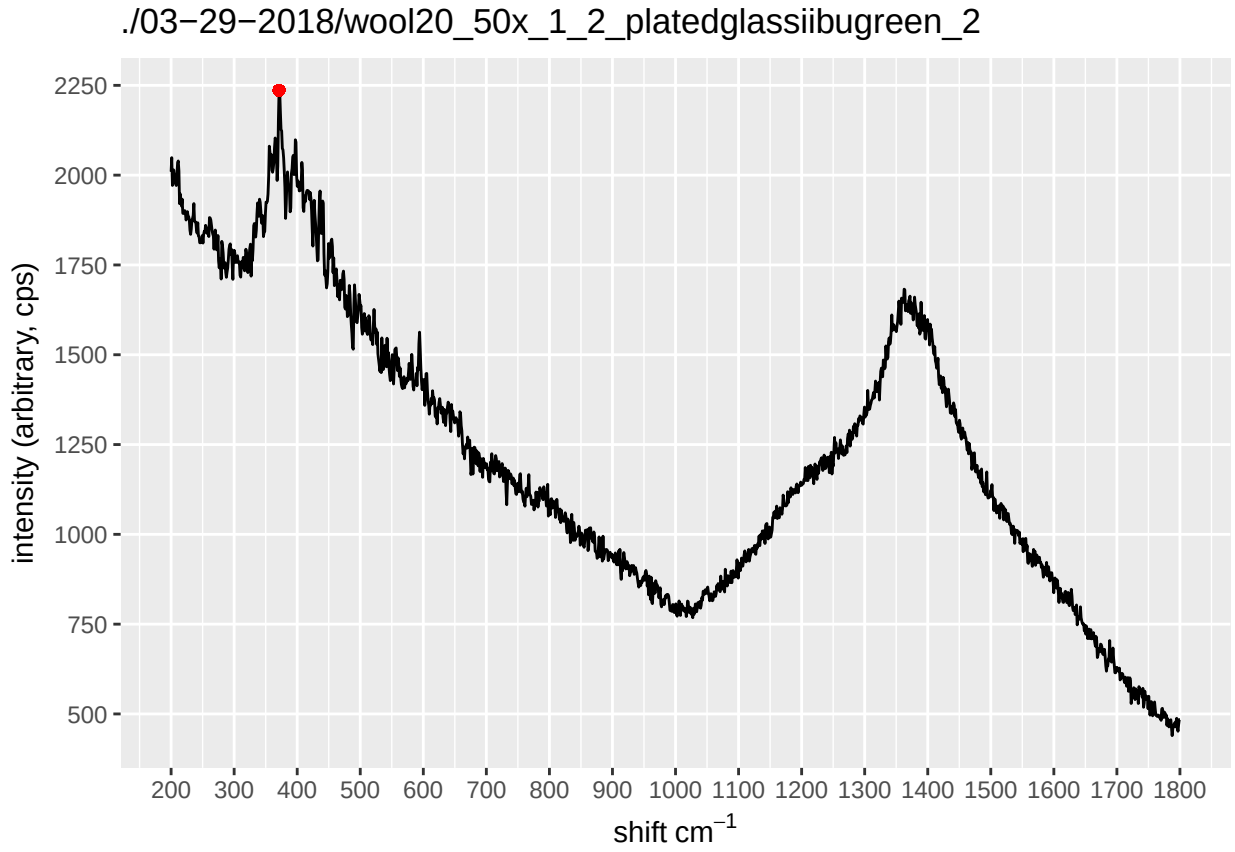
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_2
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

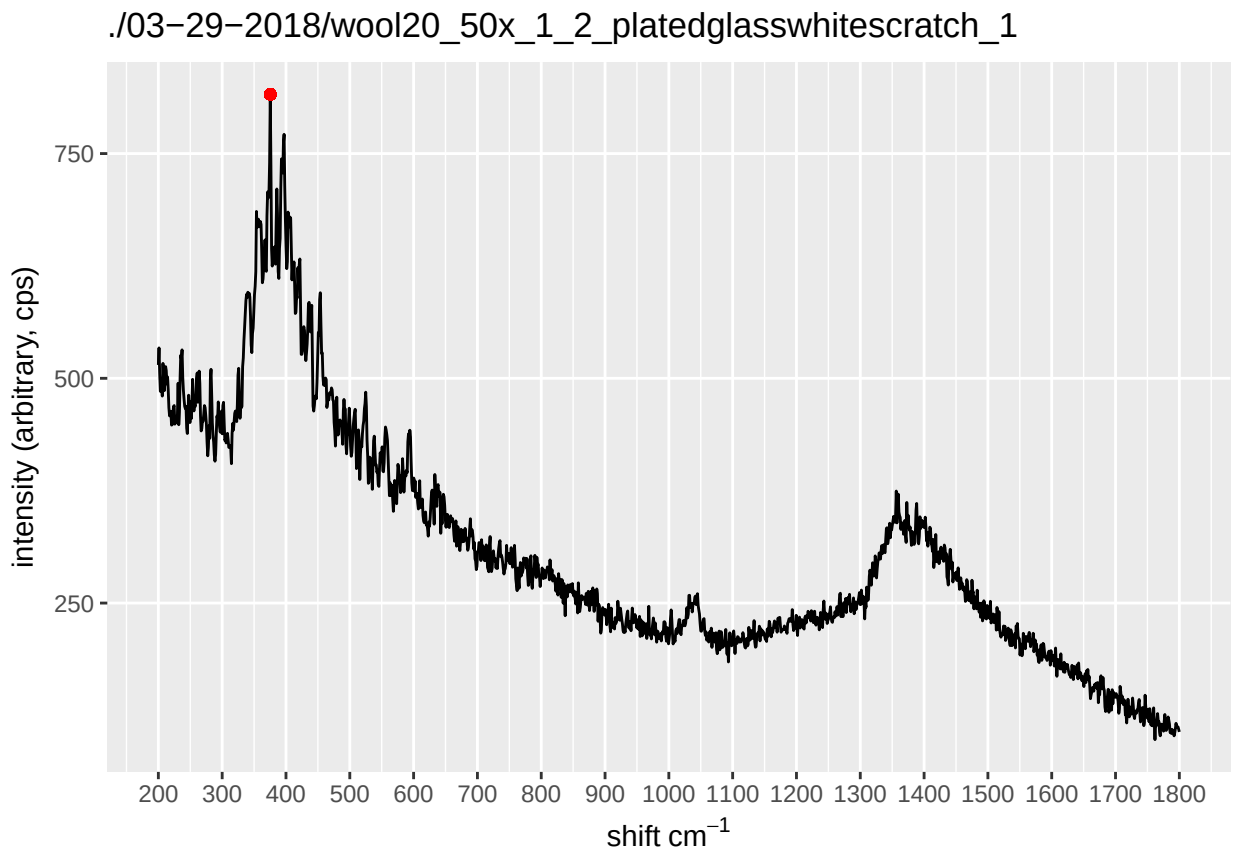
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_1
intensity (arbitrary, cps)
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

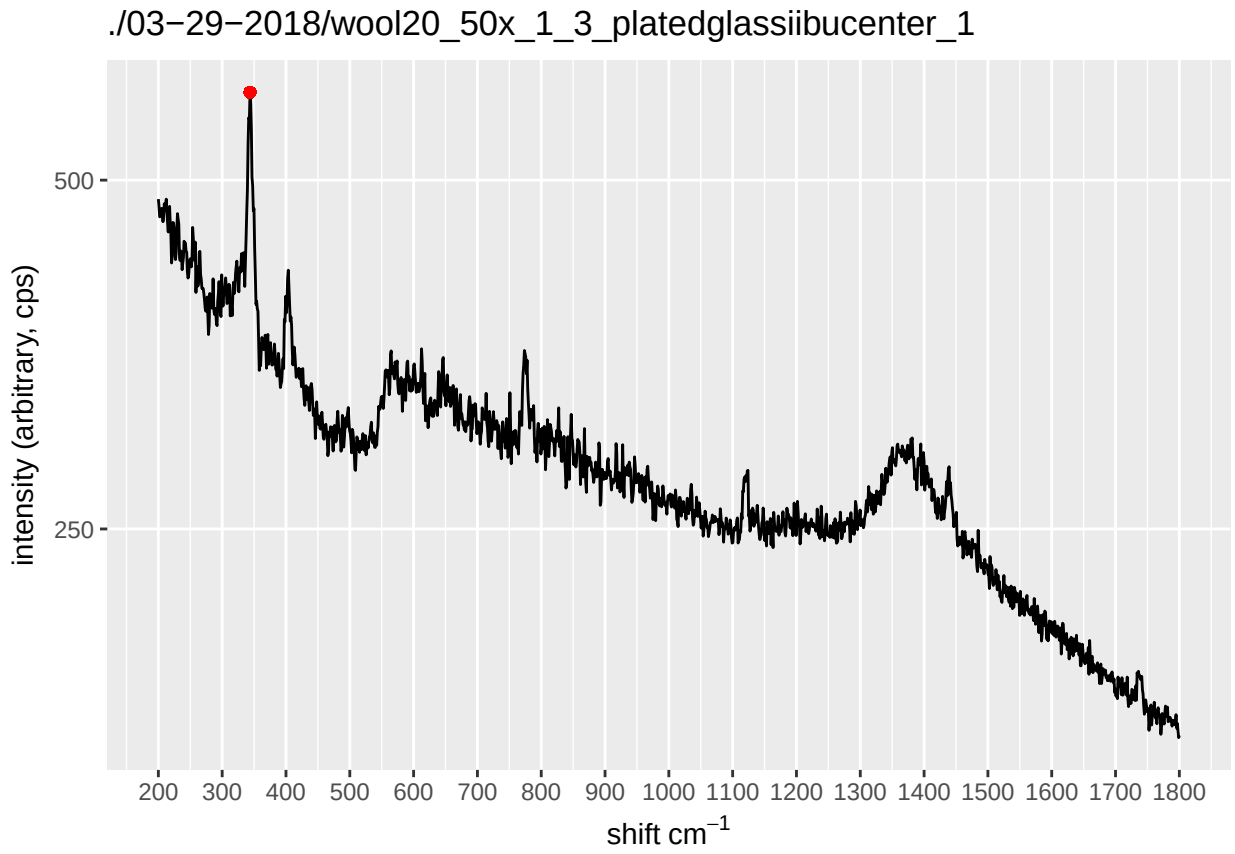
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_2
intensity (arbitrary, cps)
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

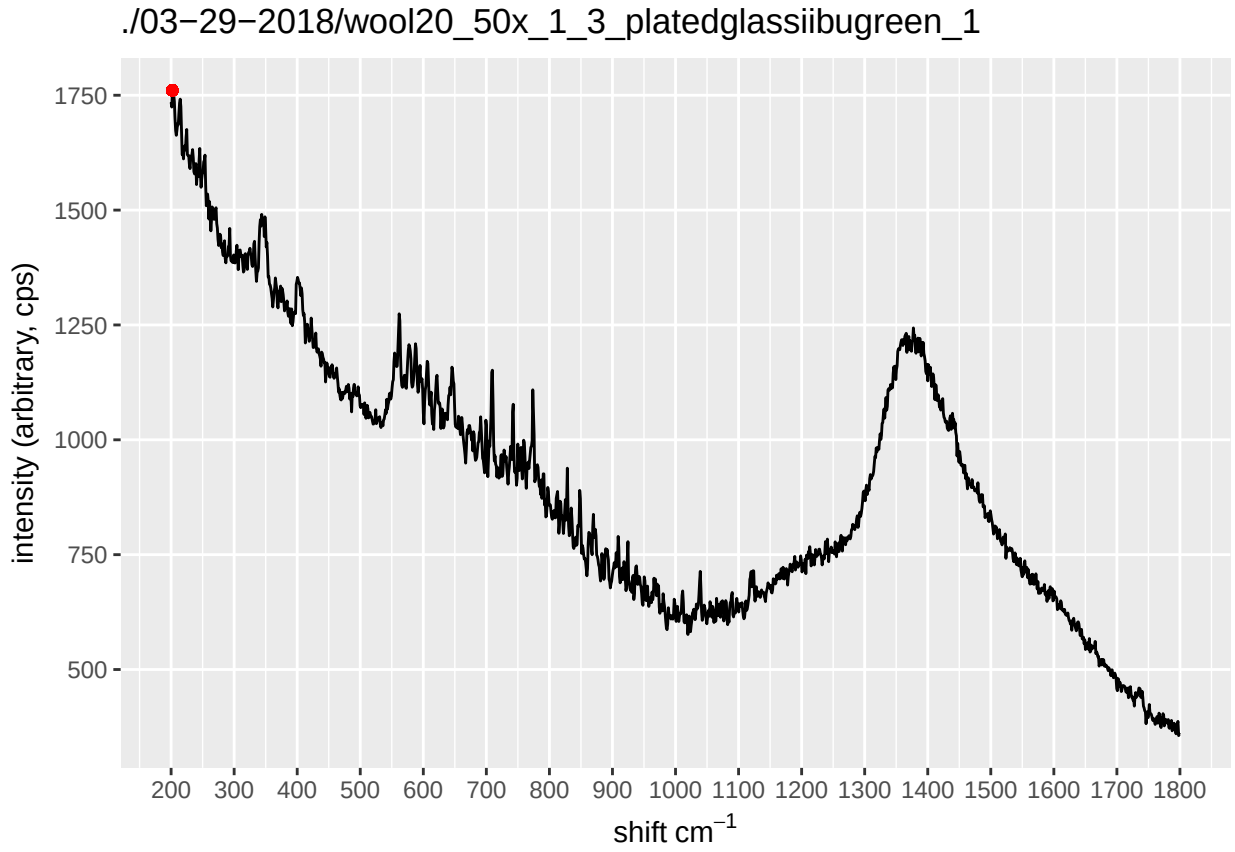
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglasswhitescratch_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

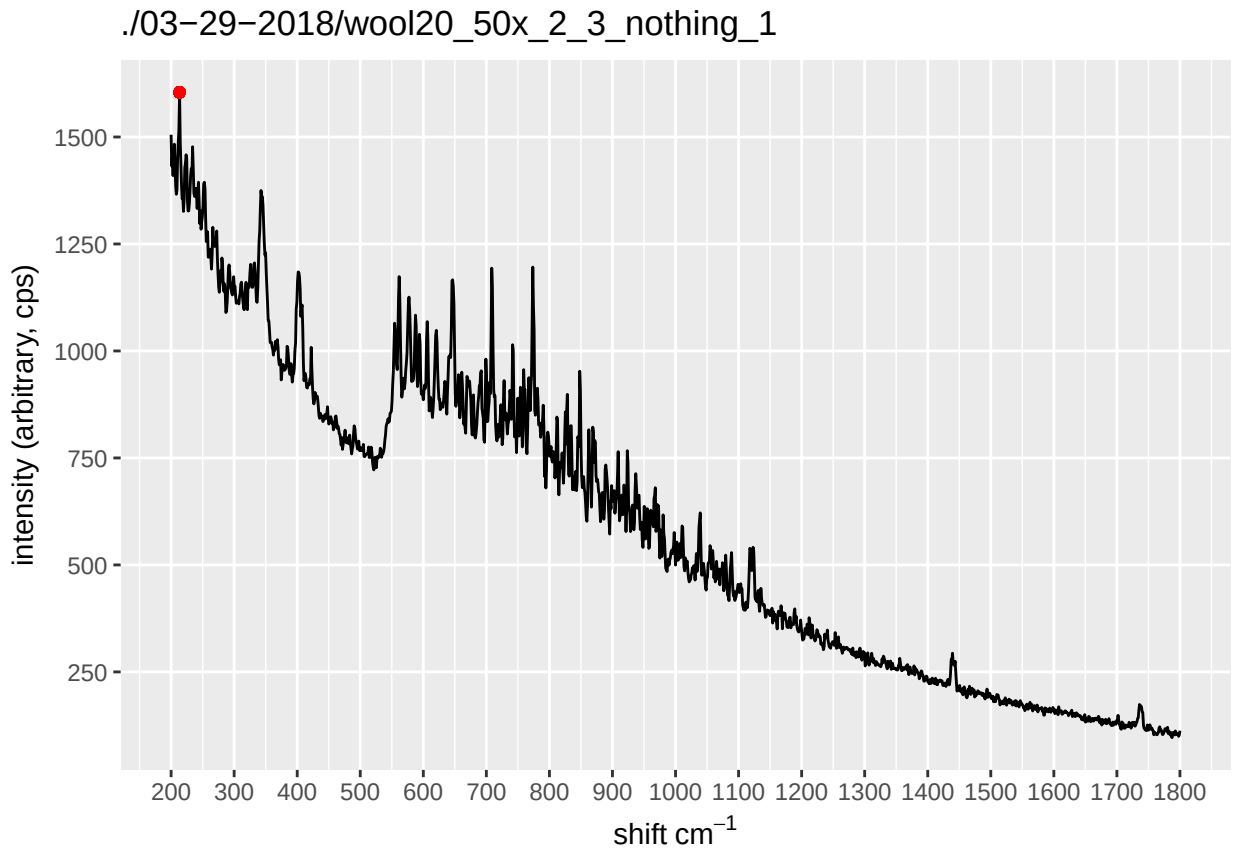
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibucenter_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

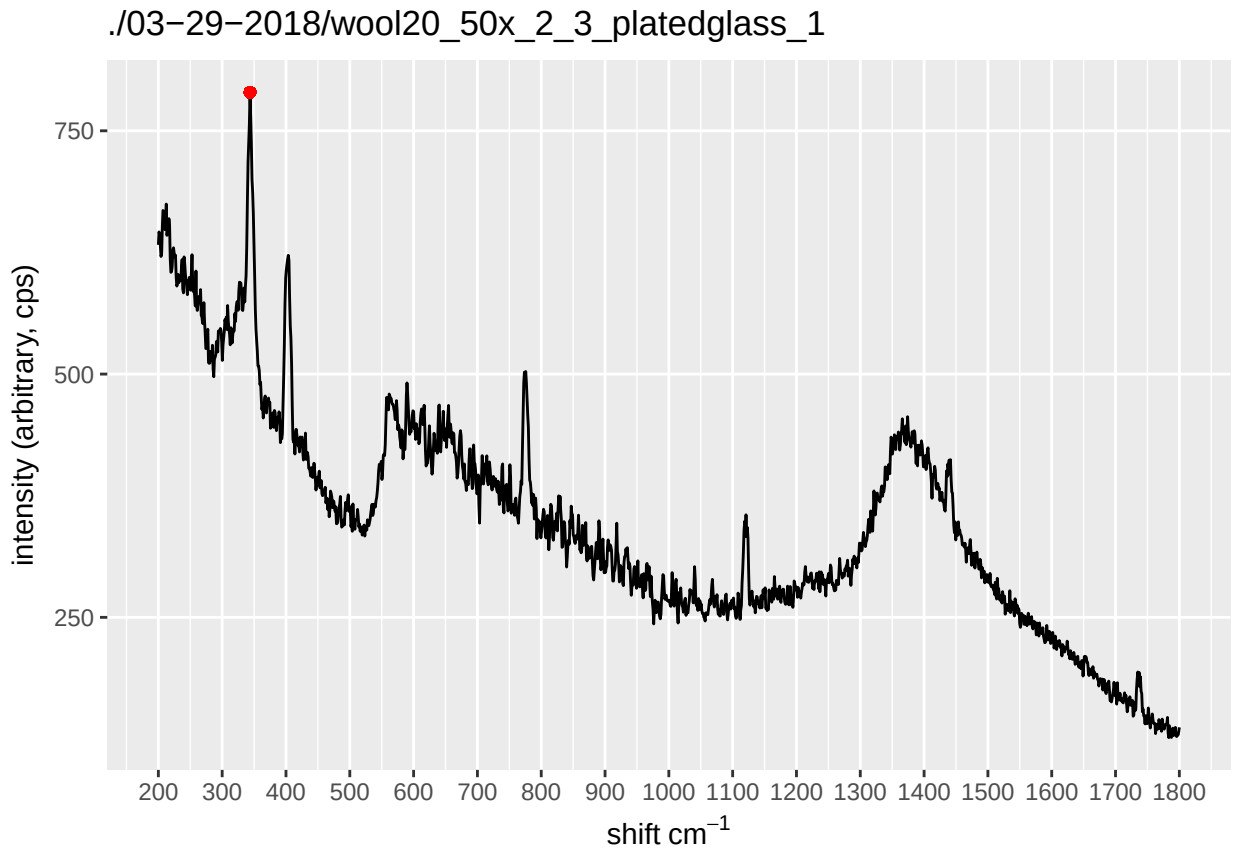
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibugreen_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

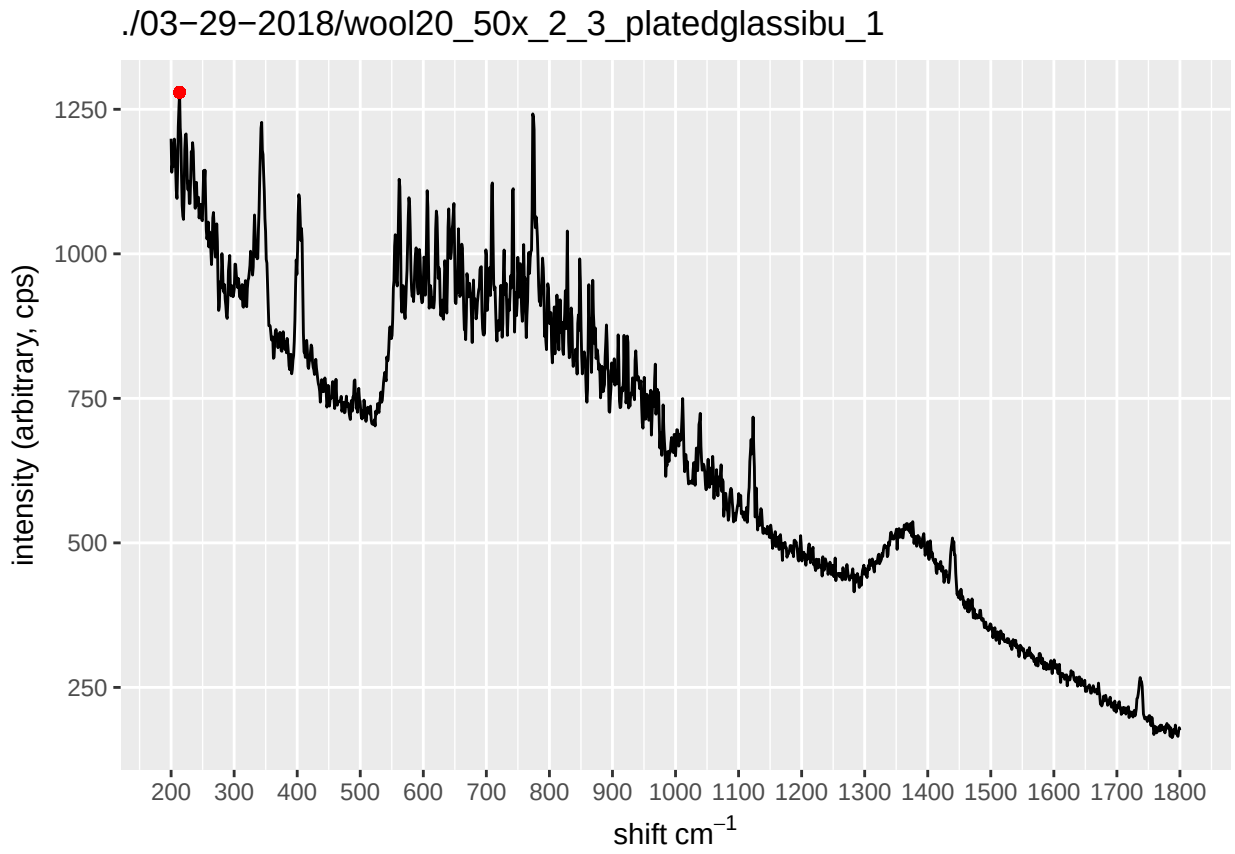
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_nothing_1
intensity (arbitrary, cps)
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

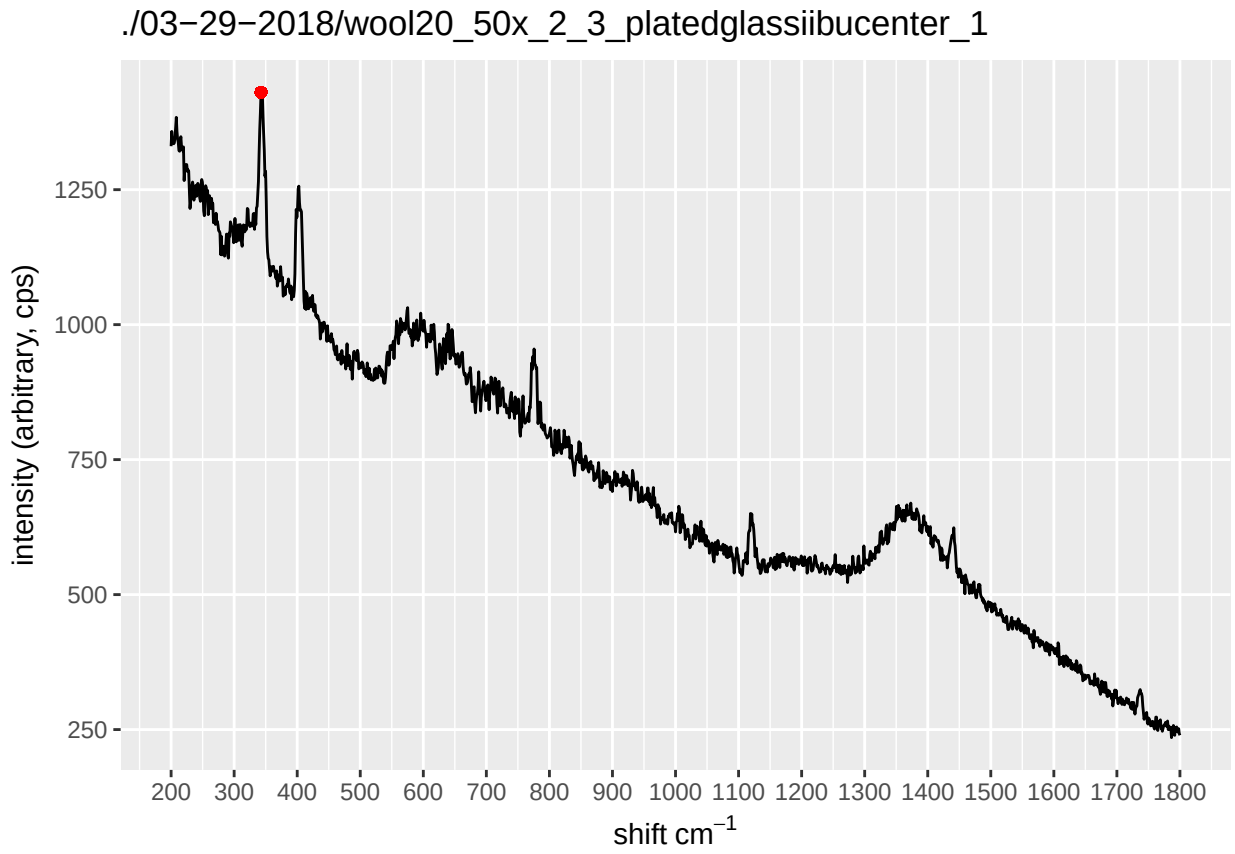
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglass_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

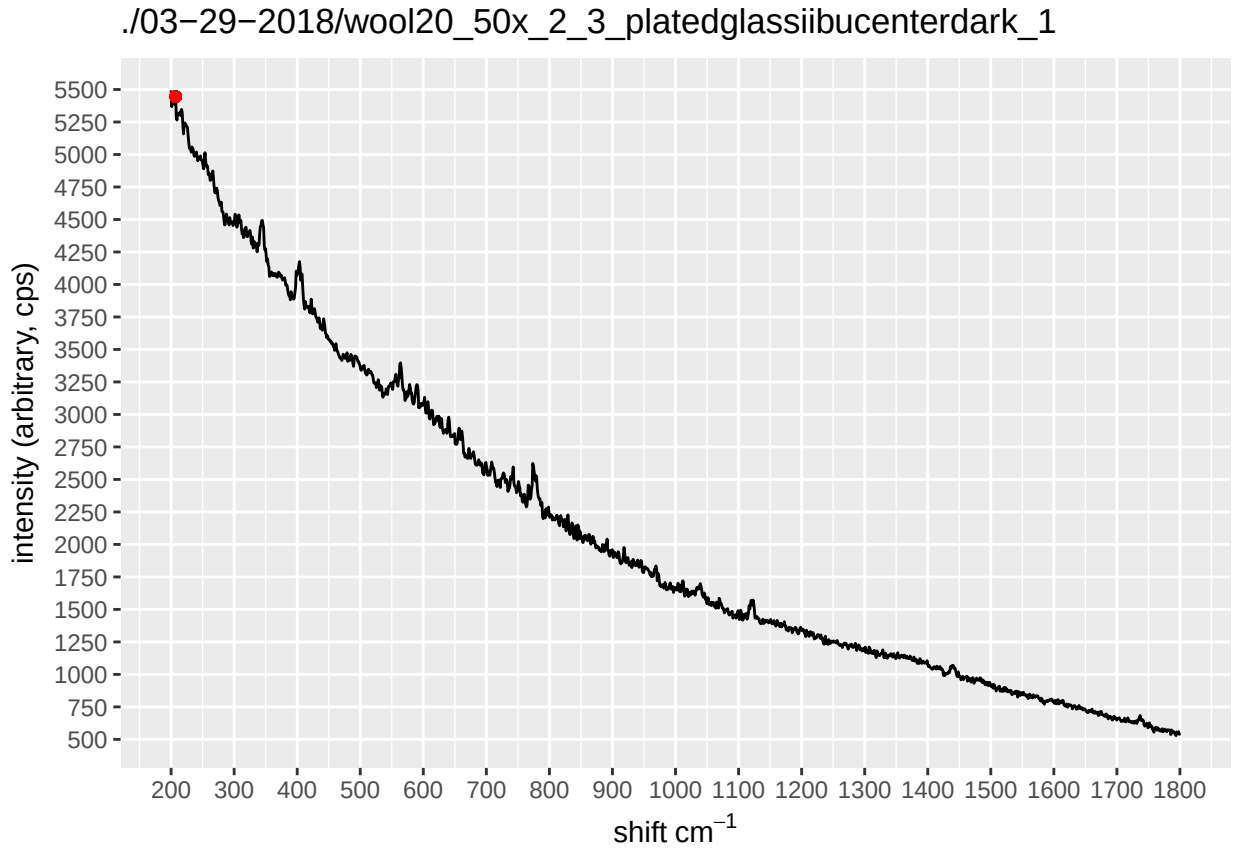
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

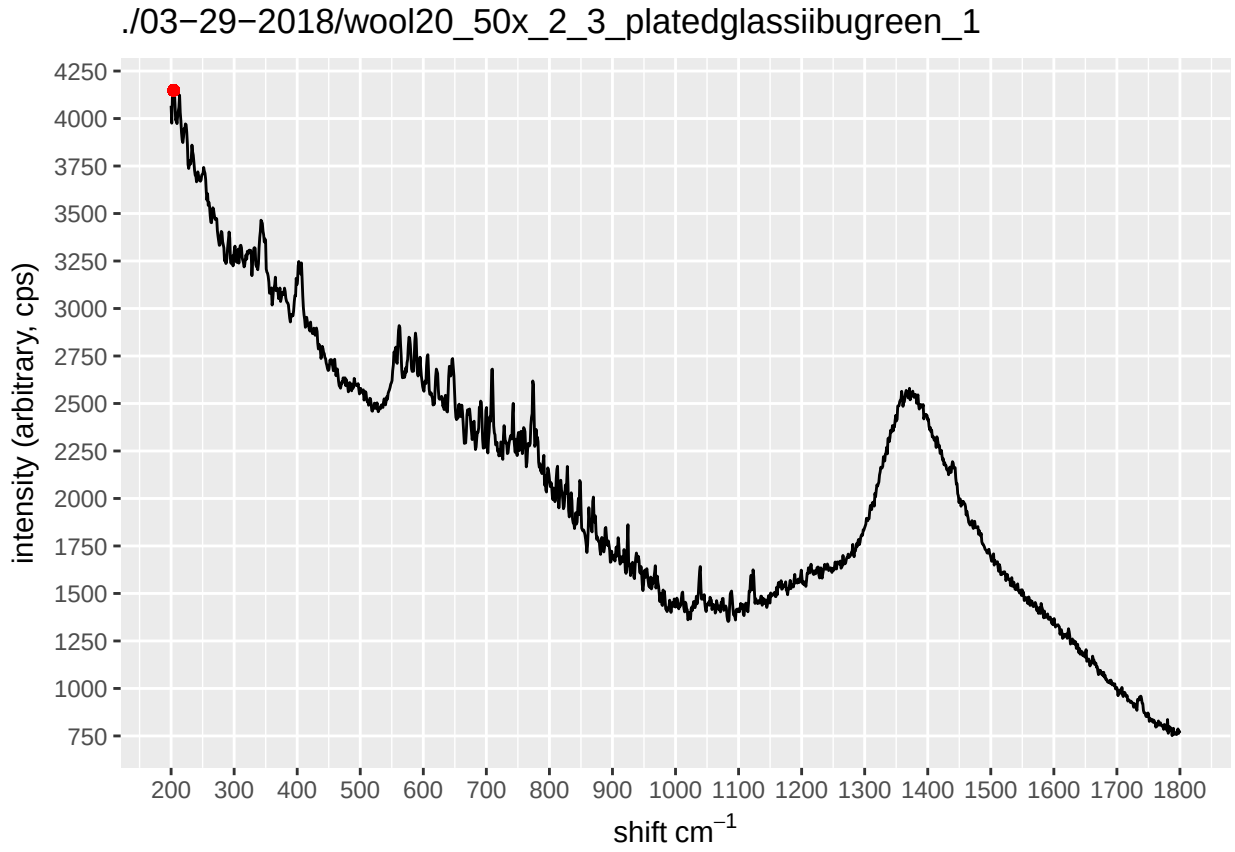
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenter_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

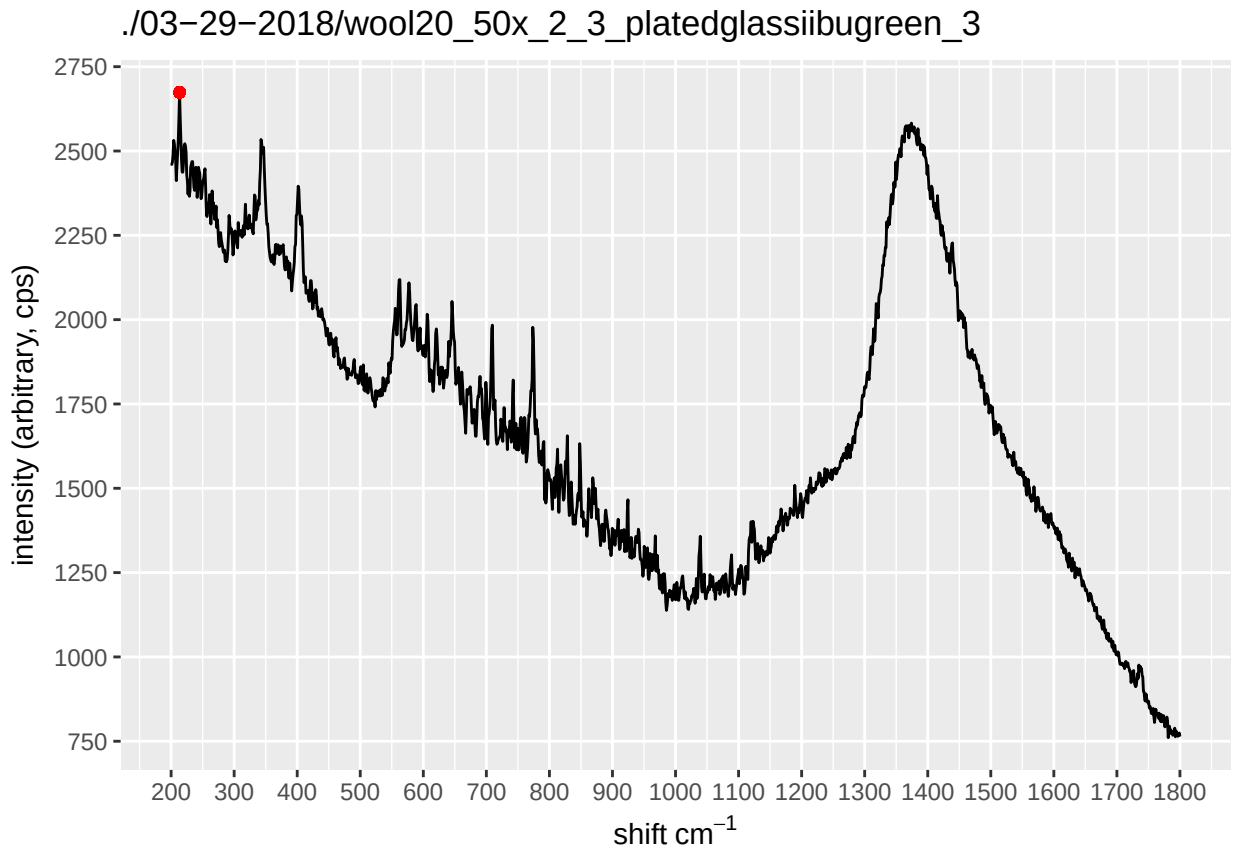
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

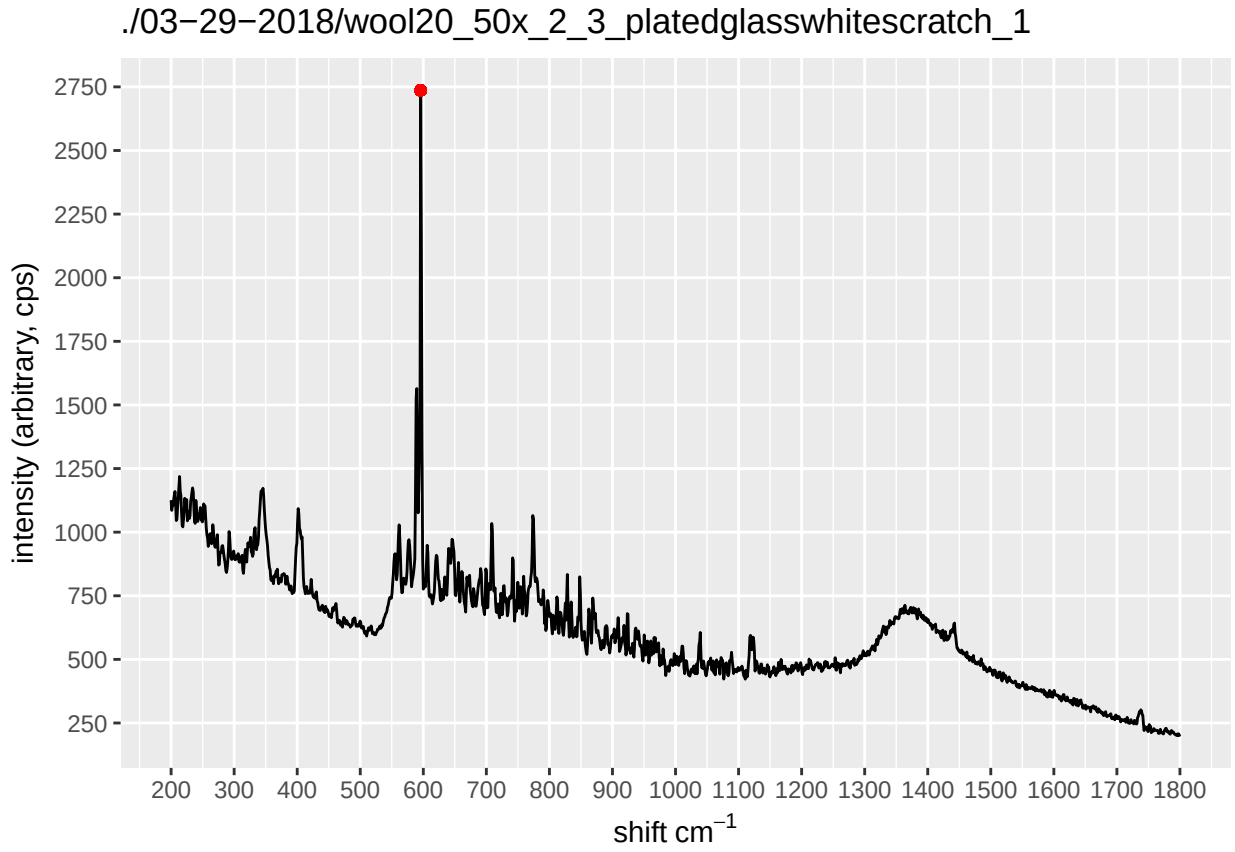
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibugreen_1
intensity (arbitrary, cps)
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

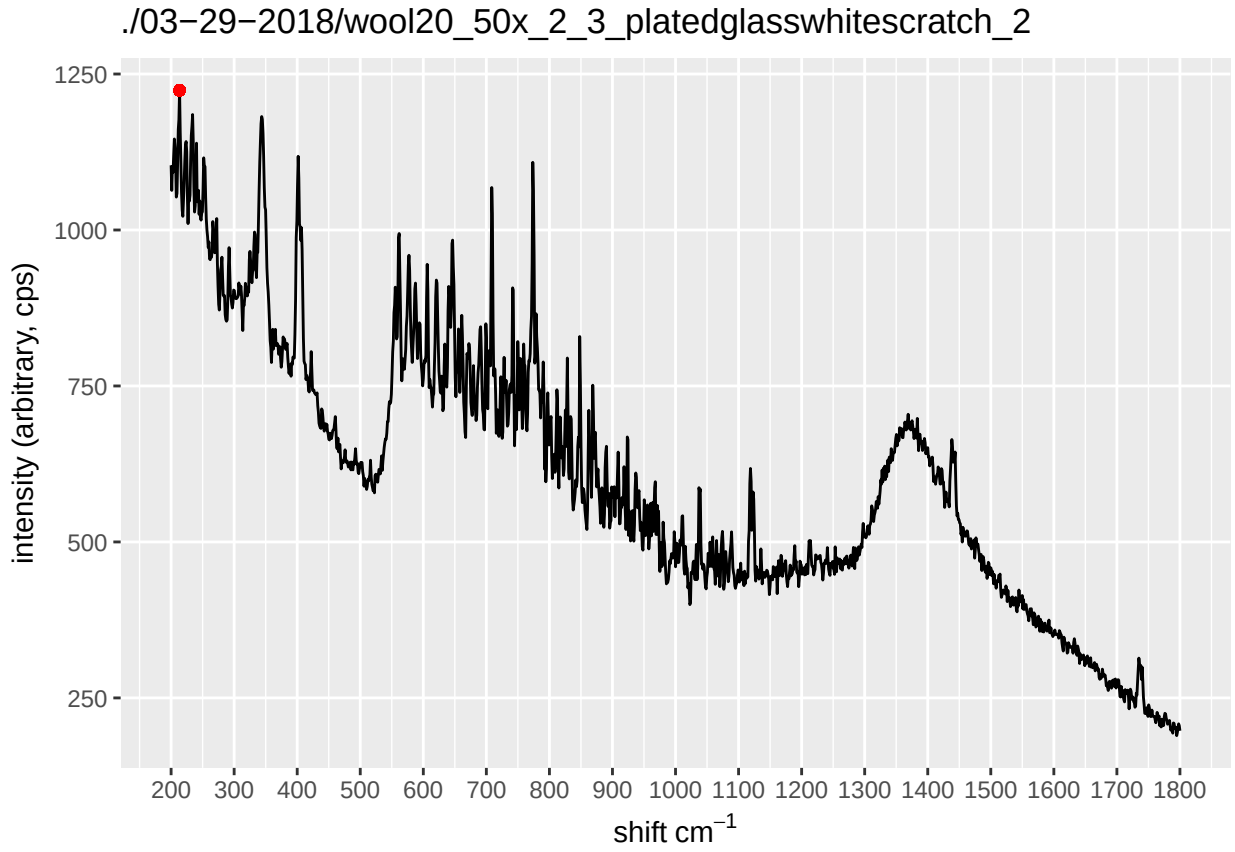
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibugreen_3
intensity (arbitrary, cps)
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

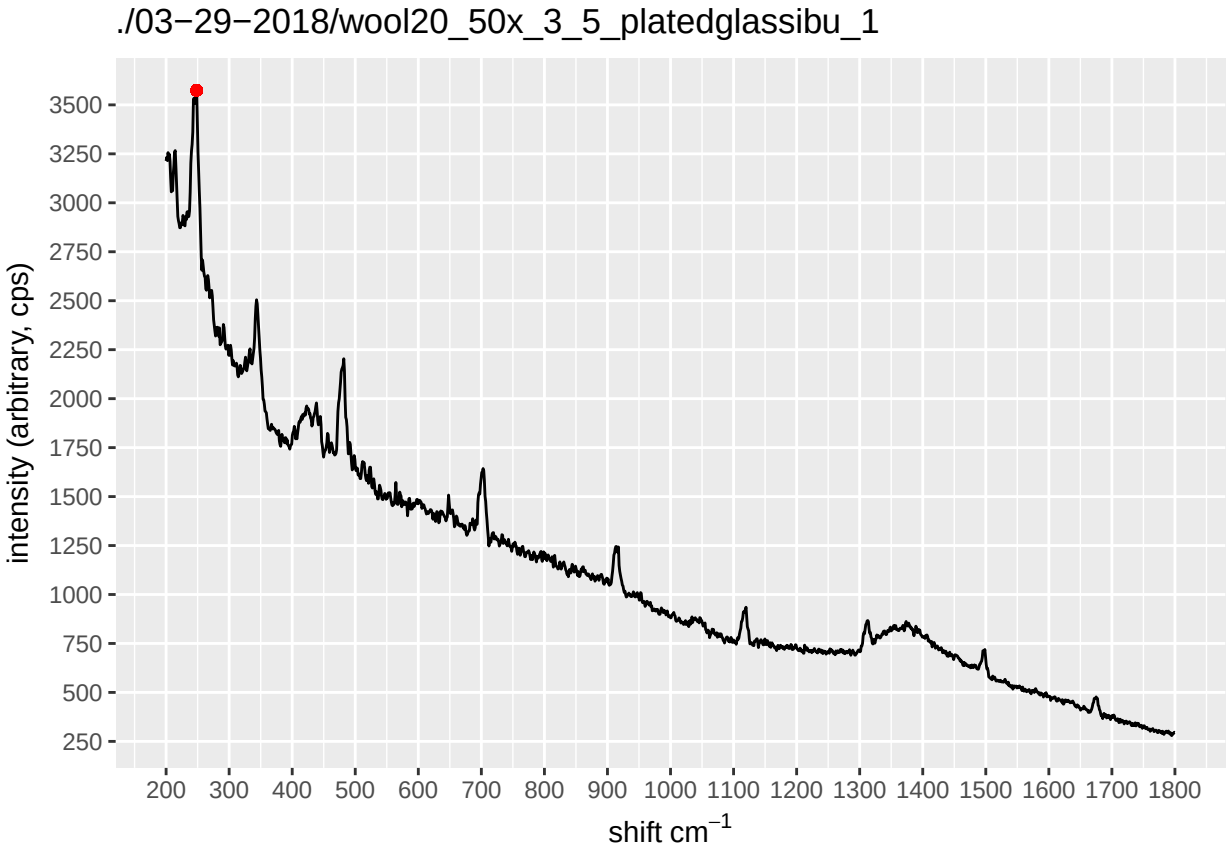
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglasswhitescratch_1
intensity (arbitrary, cps)
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

```
##
## $plot
```

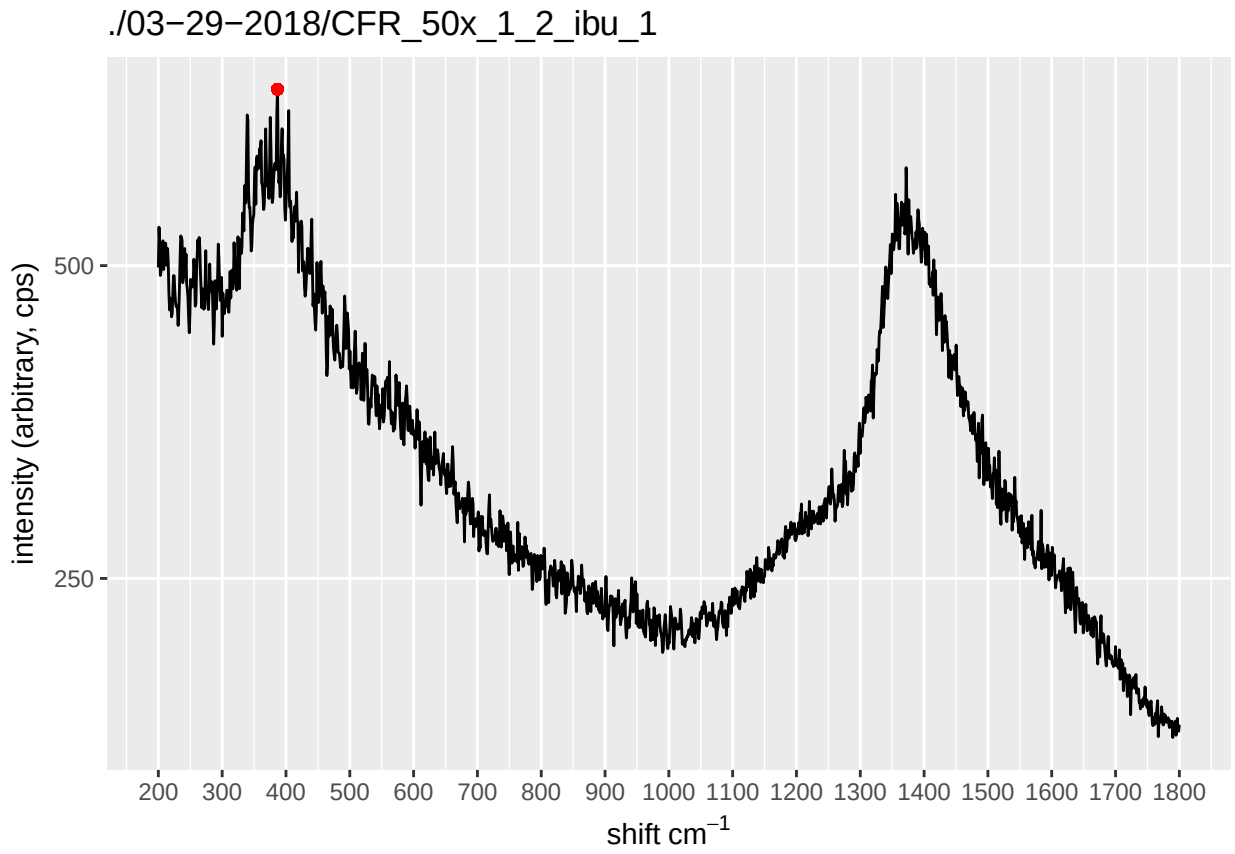

./03−29−2018/wool20_50x_2_3_platedglasswhitescratch_2
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

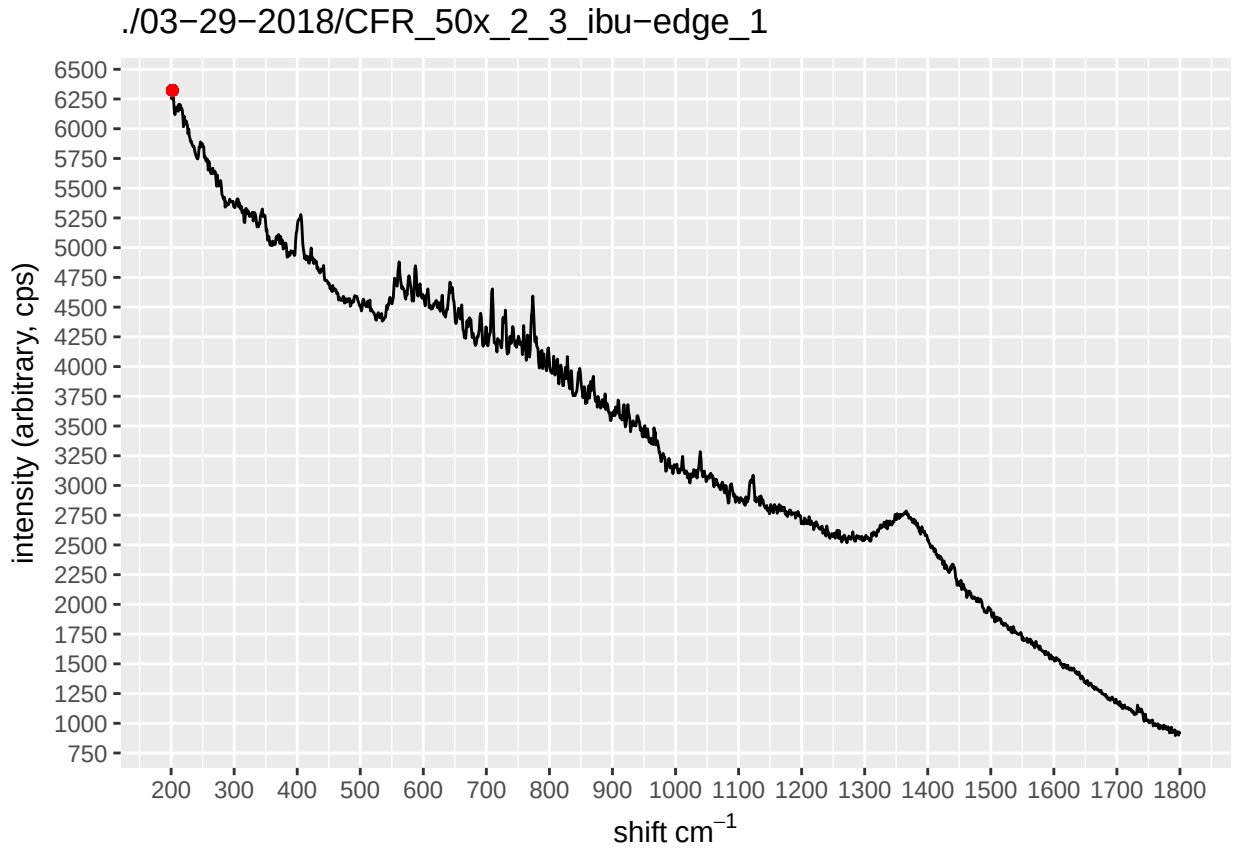


ibuprofen

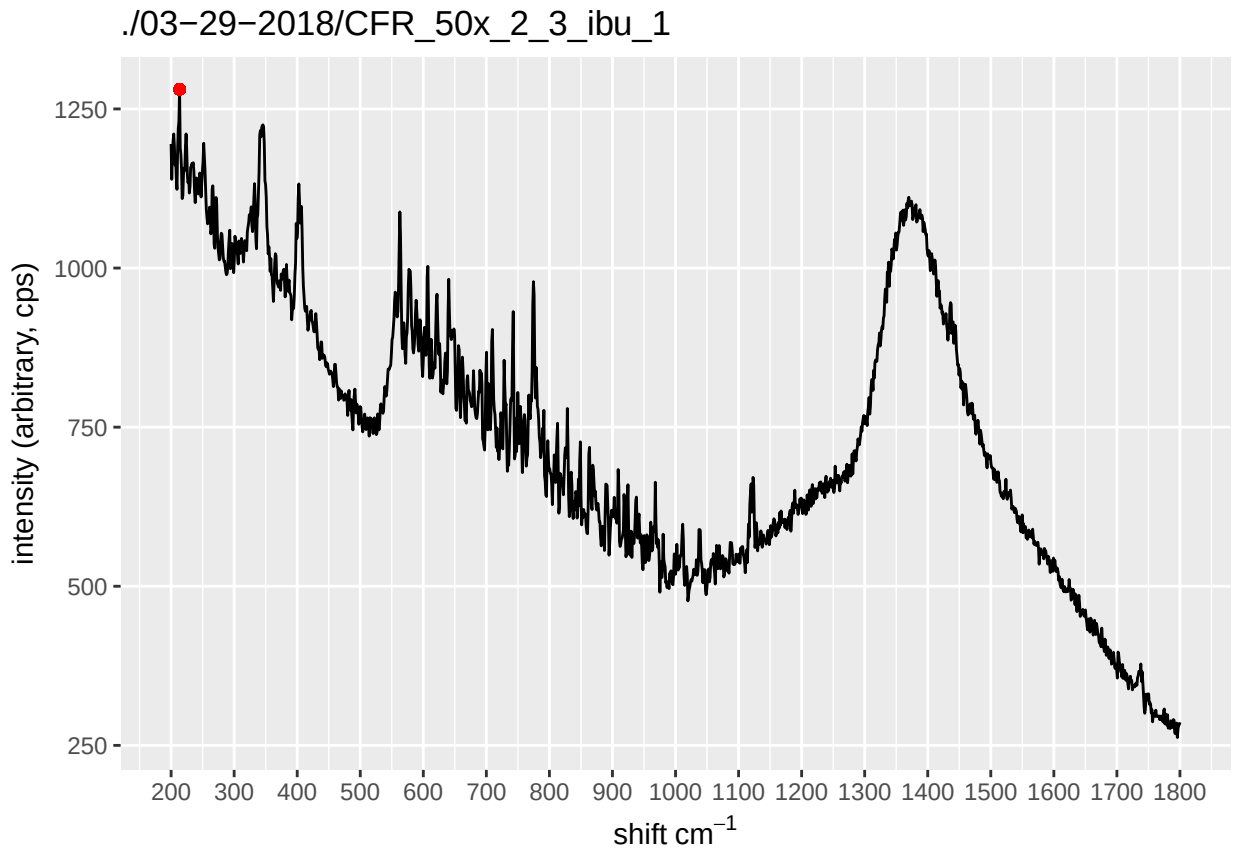
```
## $plot
```


./03−29−2018/CFR_50x_1_2_ibu_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

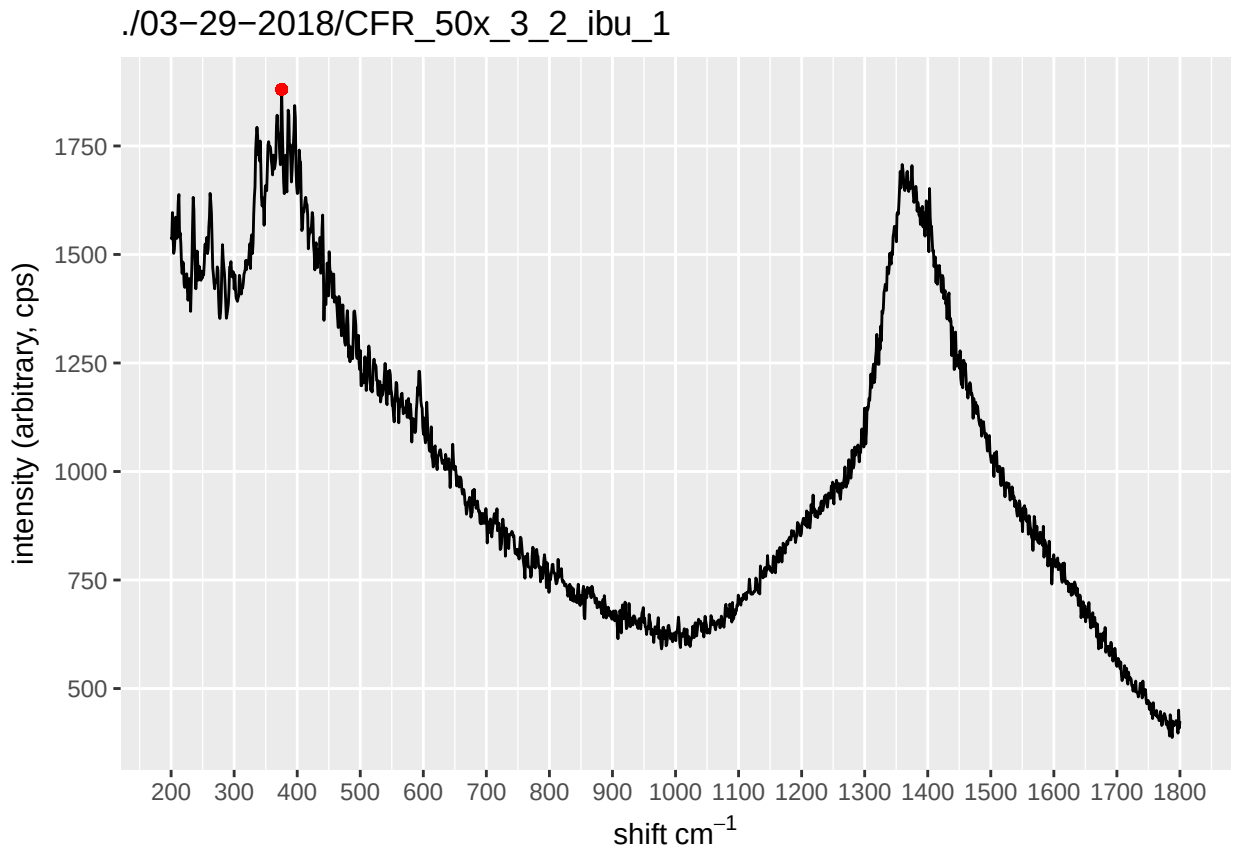
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu−edge_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

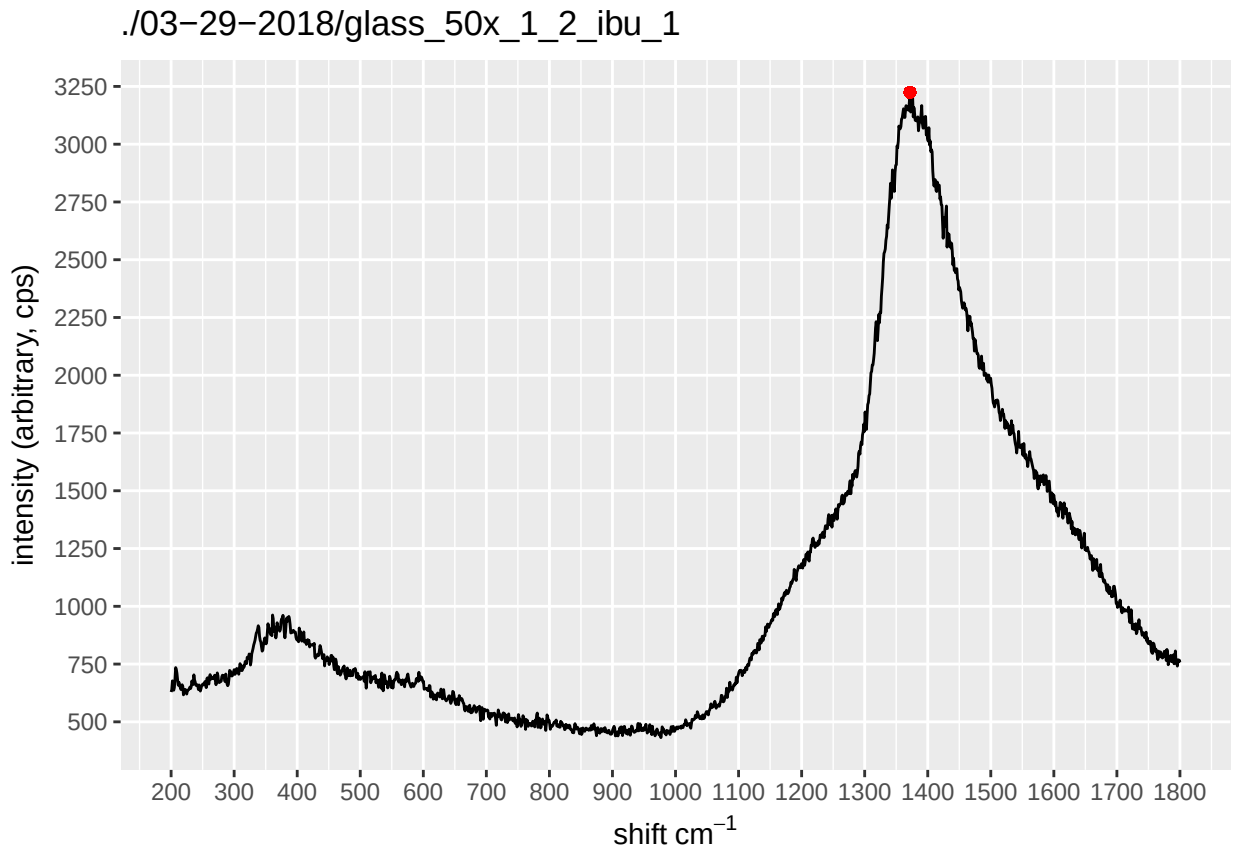
```
##
## $plot
```


./03−29−2018/CFR_50x_2_3_ibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

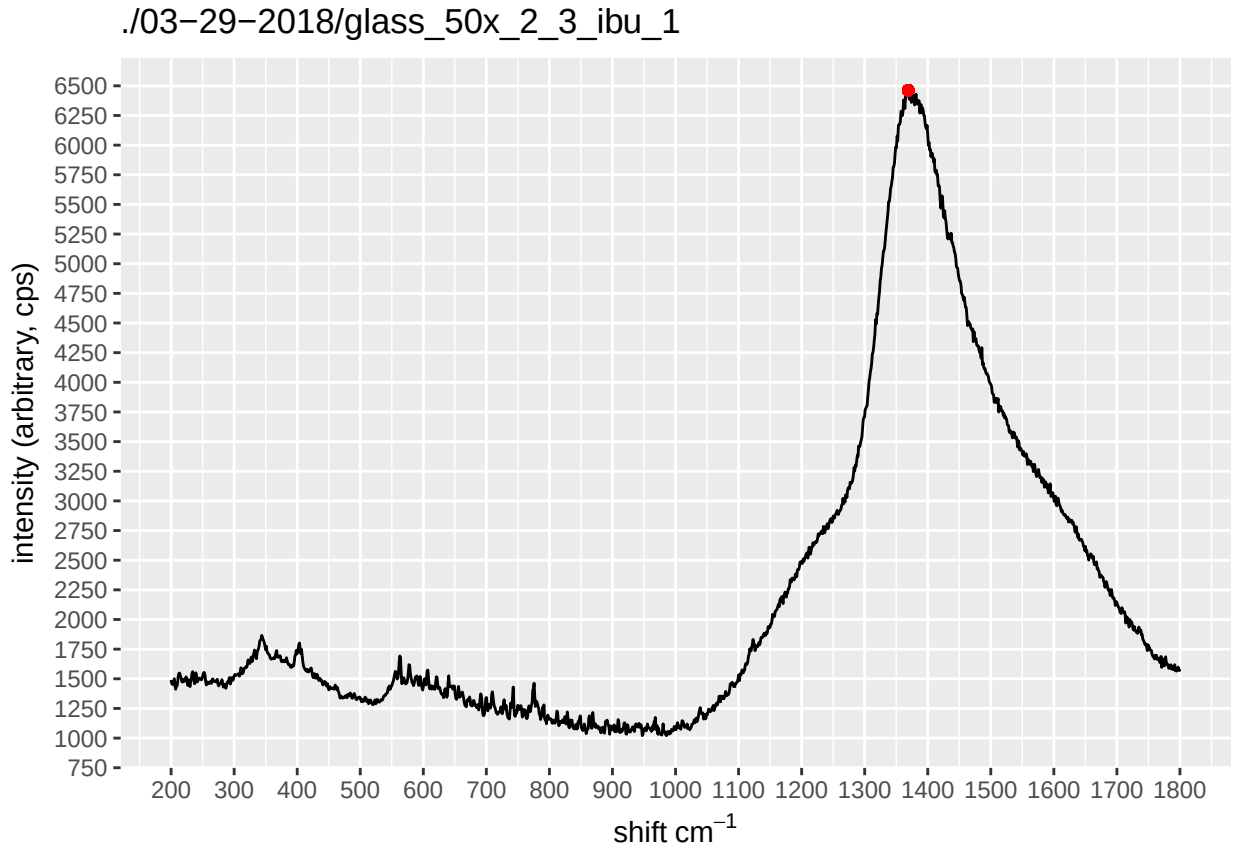
```
##
## $plot
```


./03−29−2018/CFR_50x_3_2_ibu_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

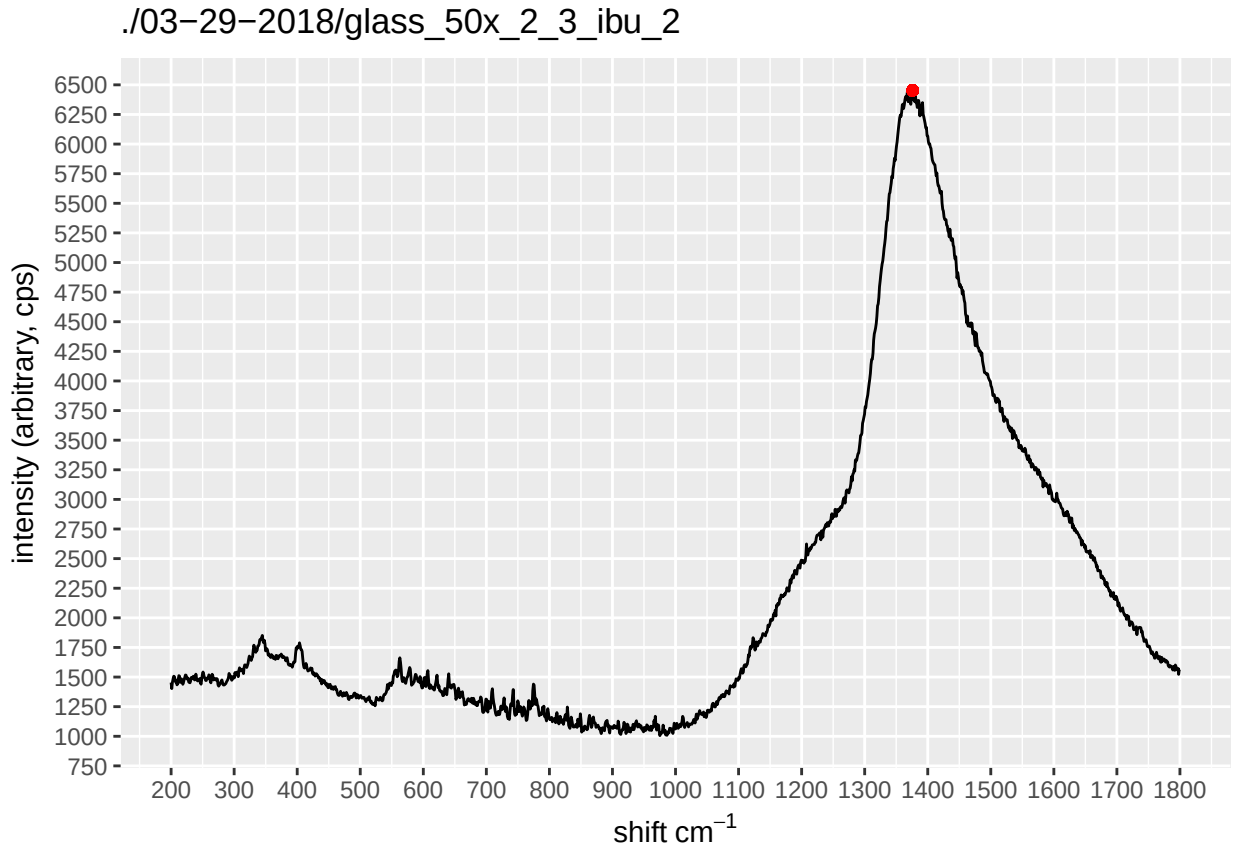
```
##
## $plot
```


./03−29−2018/glass_50x_1_2_ibu_1
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

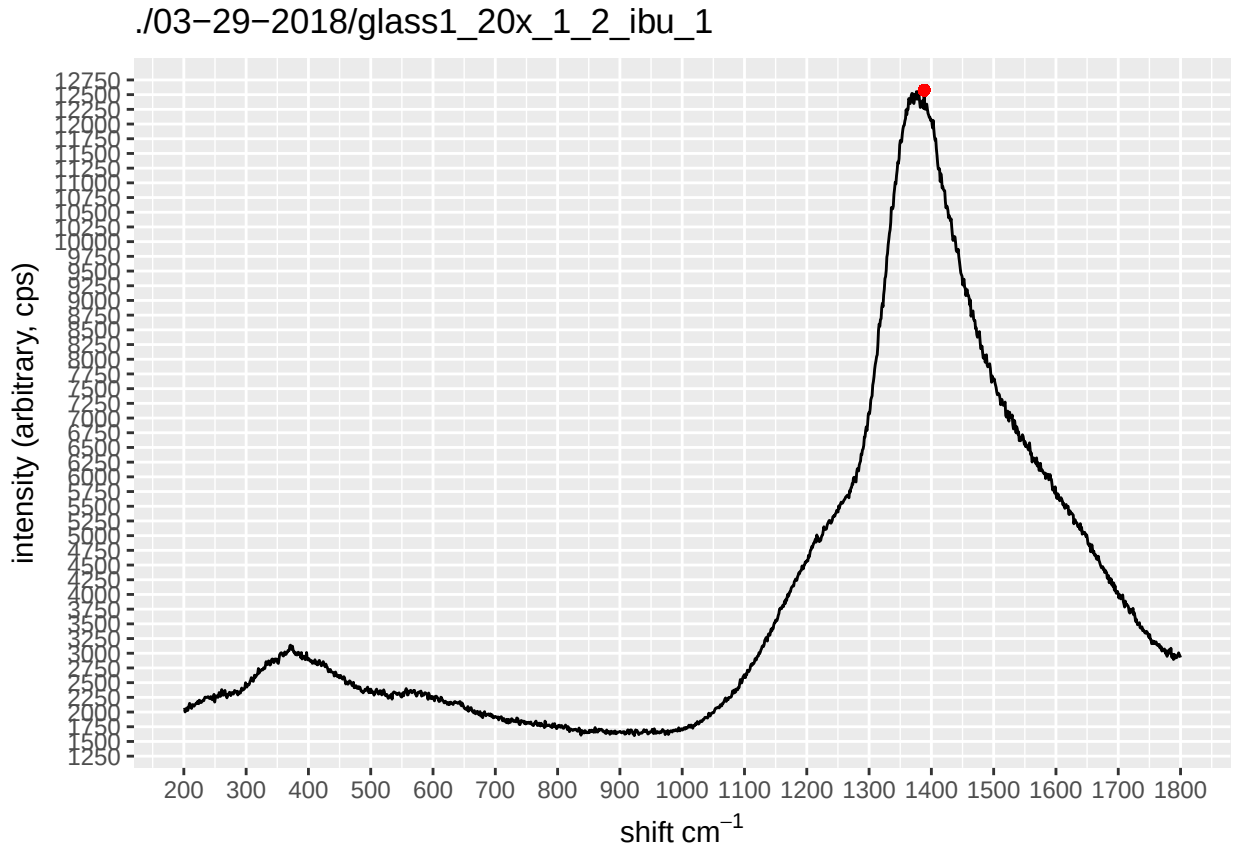
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_1
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

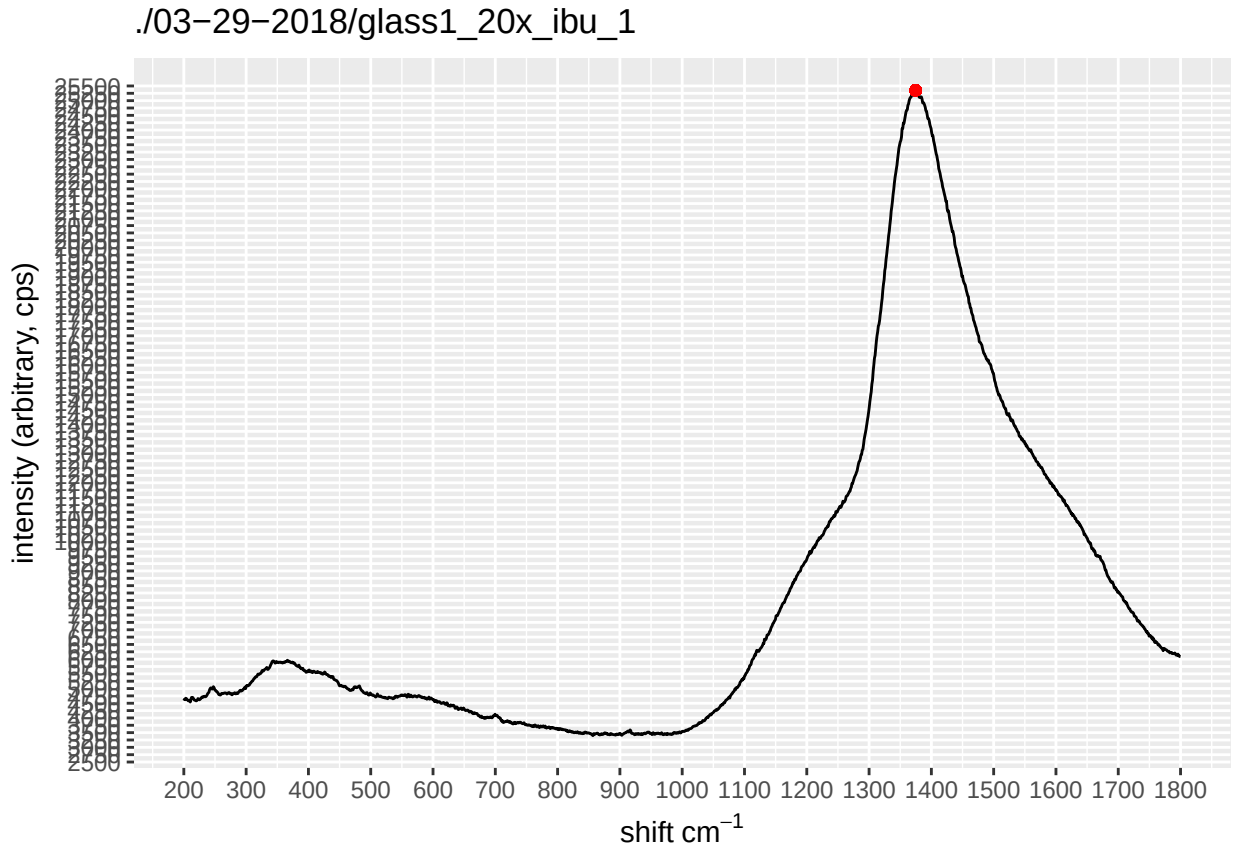
```
##
## $plot
```


./03−29−2018/glass_50x_2_3_ibu_2
intensity (arbitrary, cps)
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

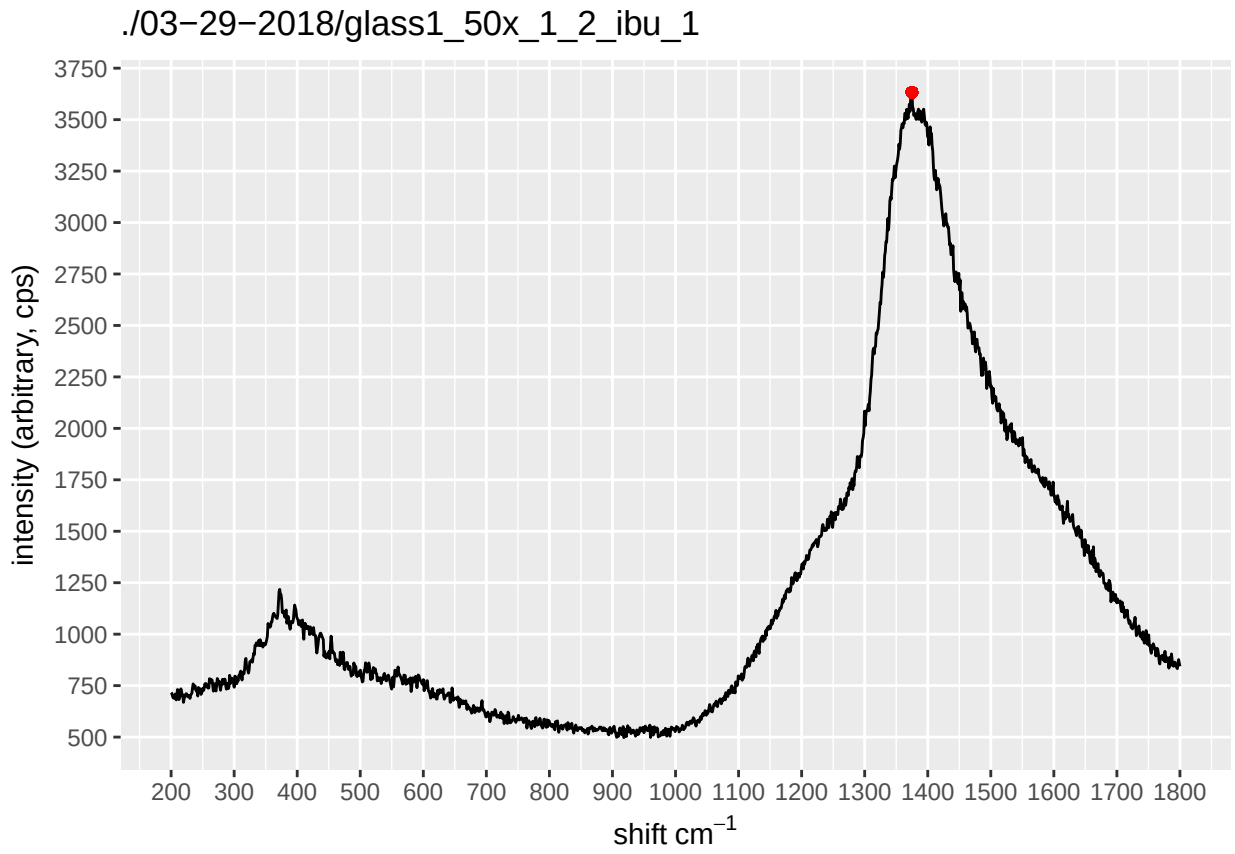
```
##
## $plot
```


./03−29−2018/glass1_20x_1_2_ibu_1
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

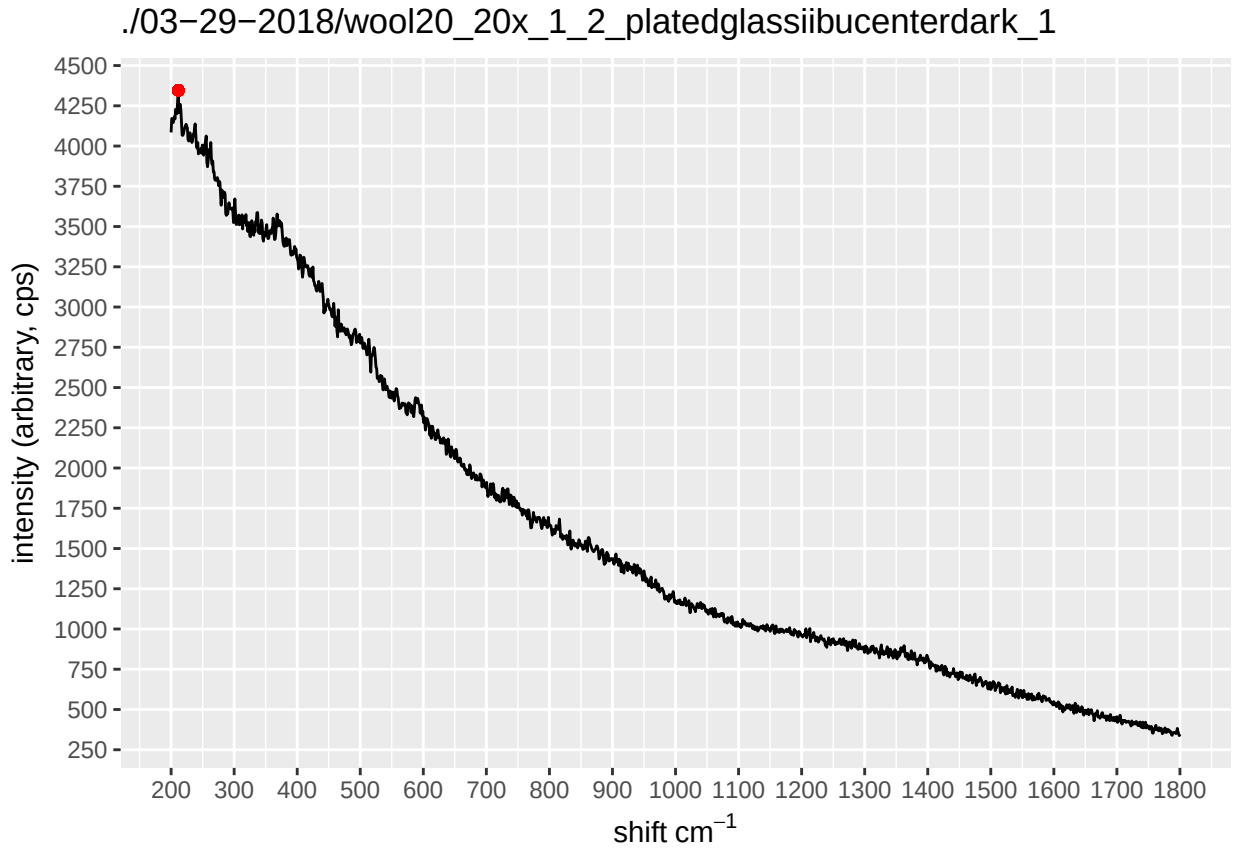
```
##
## $plot
```


./03−29−2018/glass1_20x_ibu_1
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

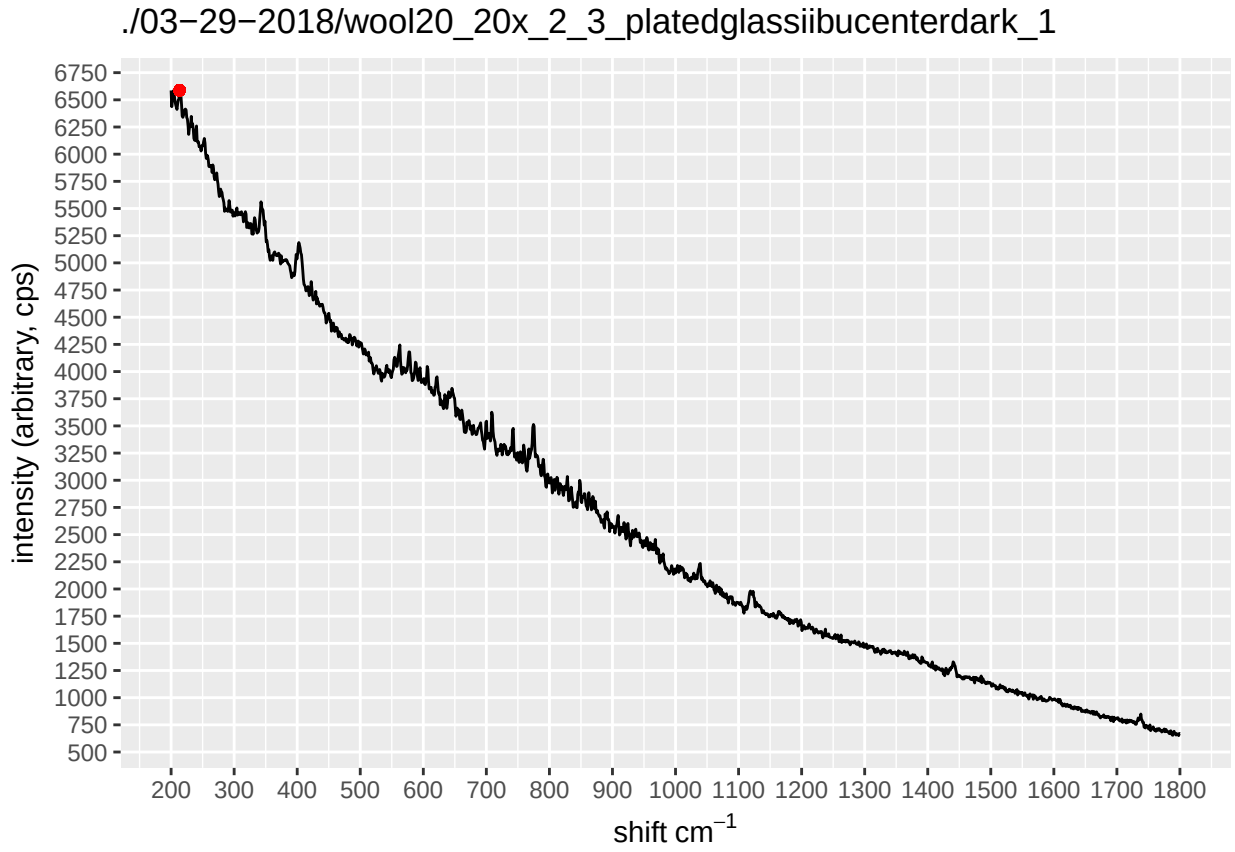
```
##
## $plot
```


./03−29−2018/glass1_50x_1_2_ibu_1
intensity (arbitrary, cps)
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

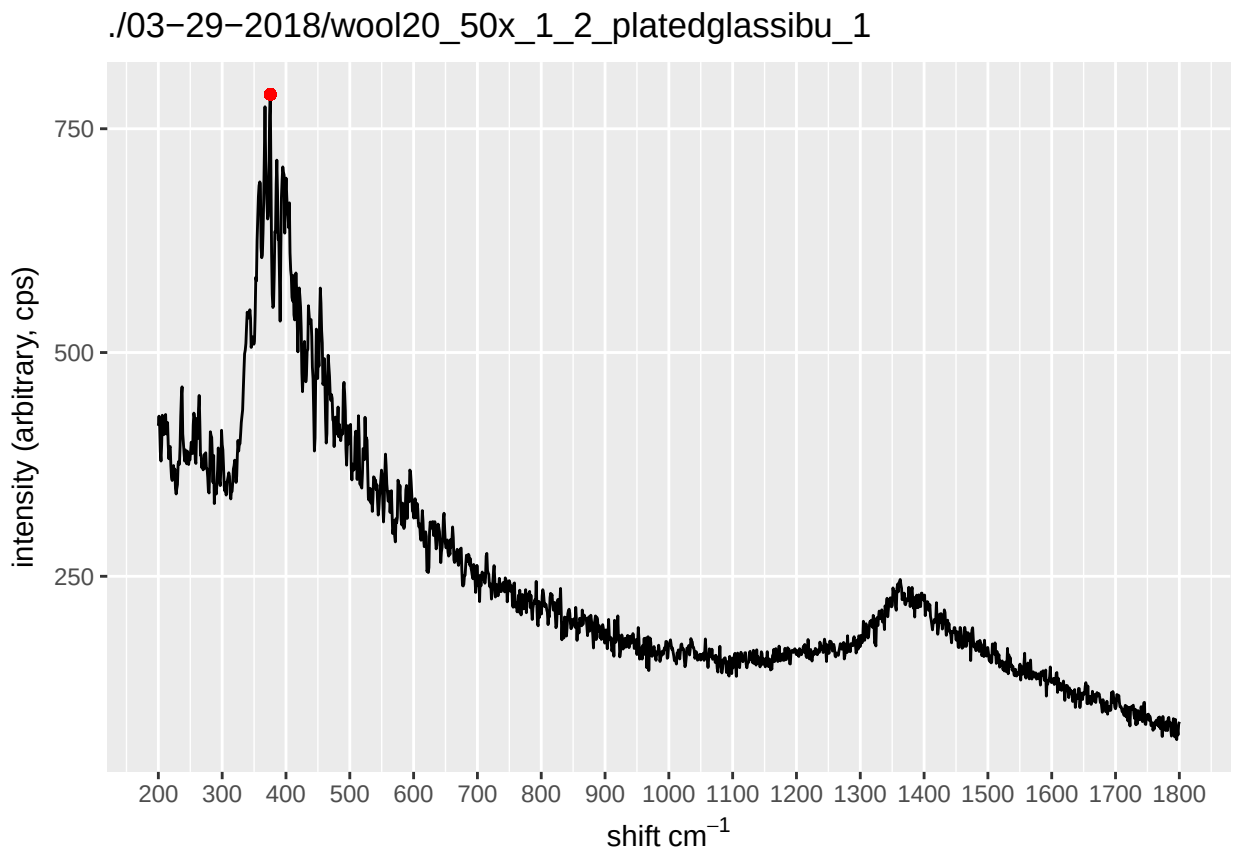
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

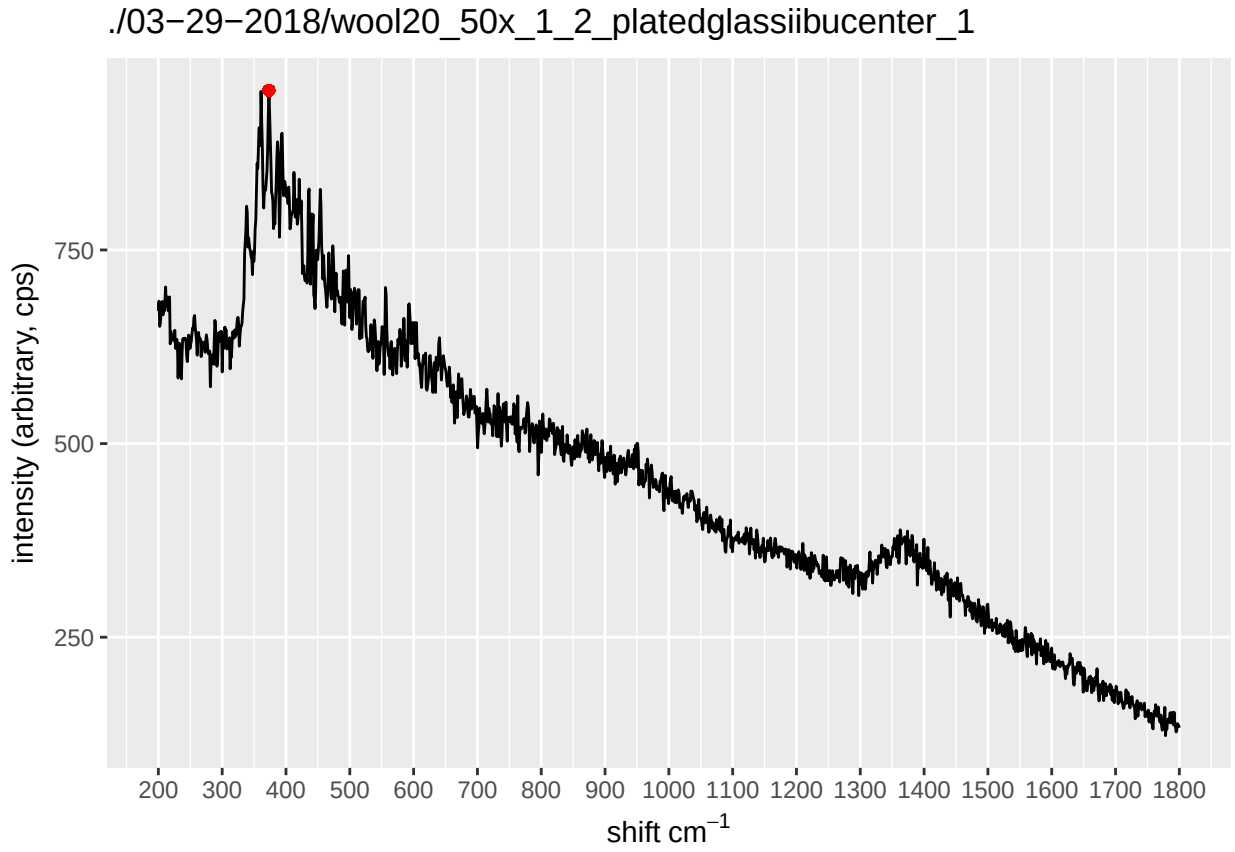
```
##
## $plot
```


./03−29−2018/wool20_20x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

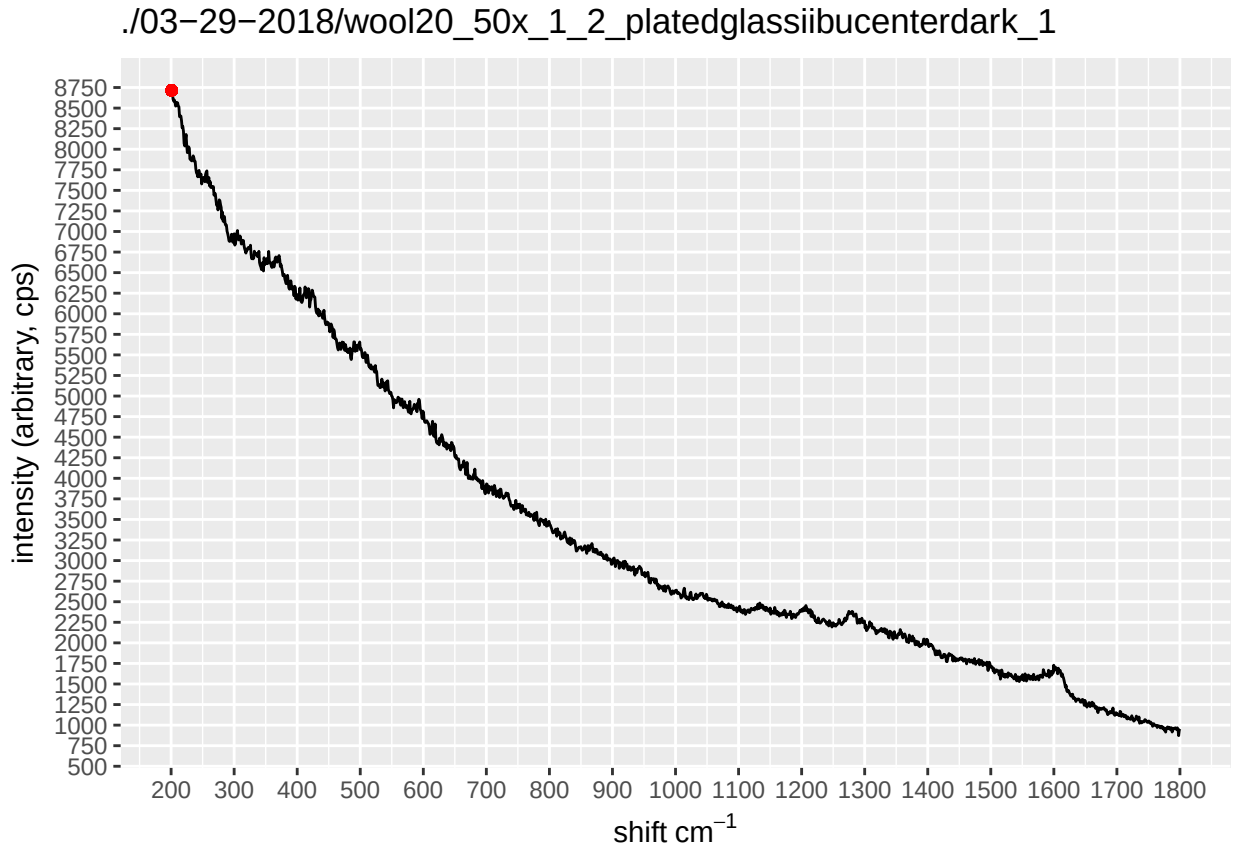
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassibu_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

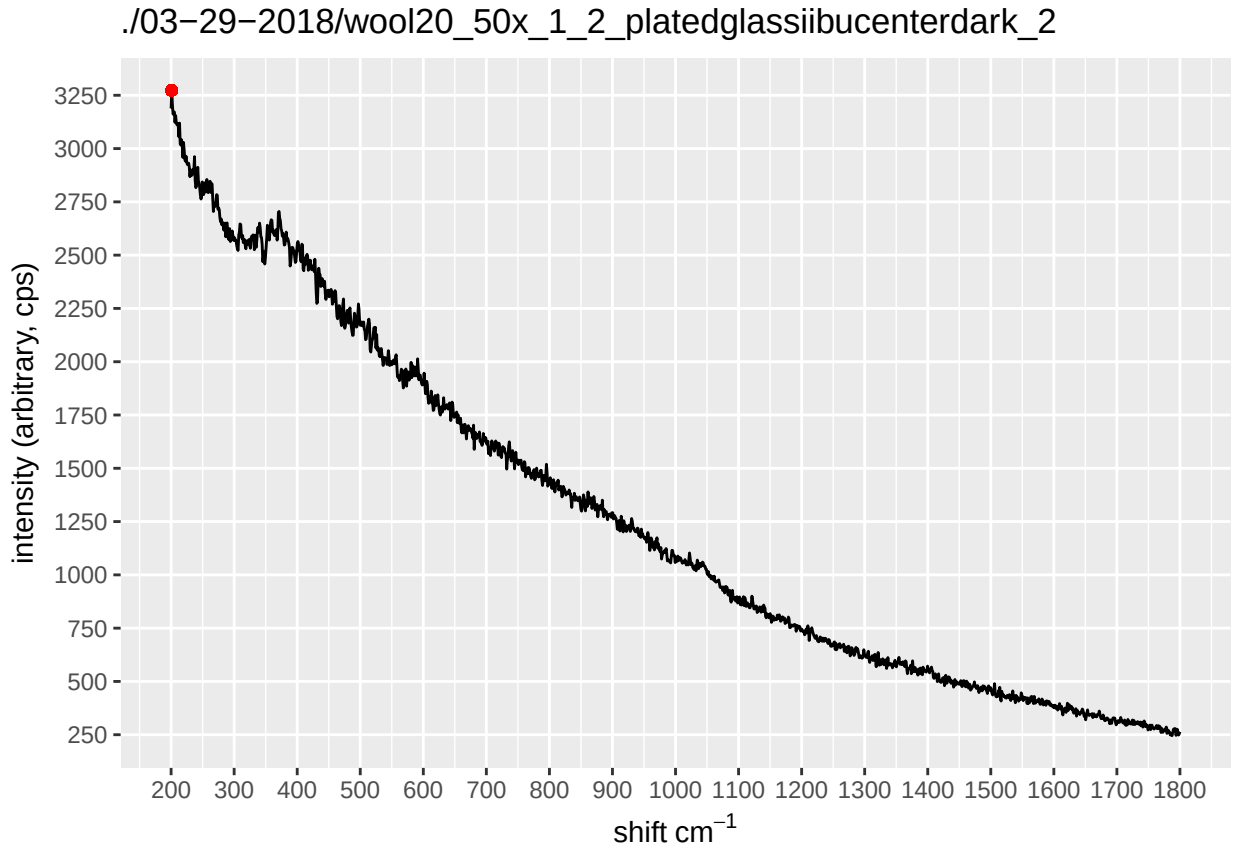
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenter_1
intensity (arbitrary, cps)
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

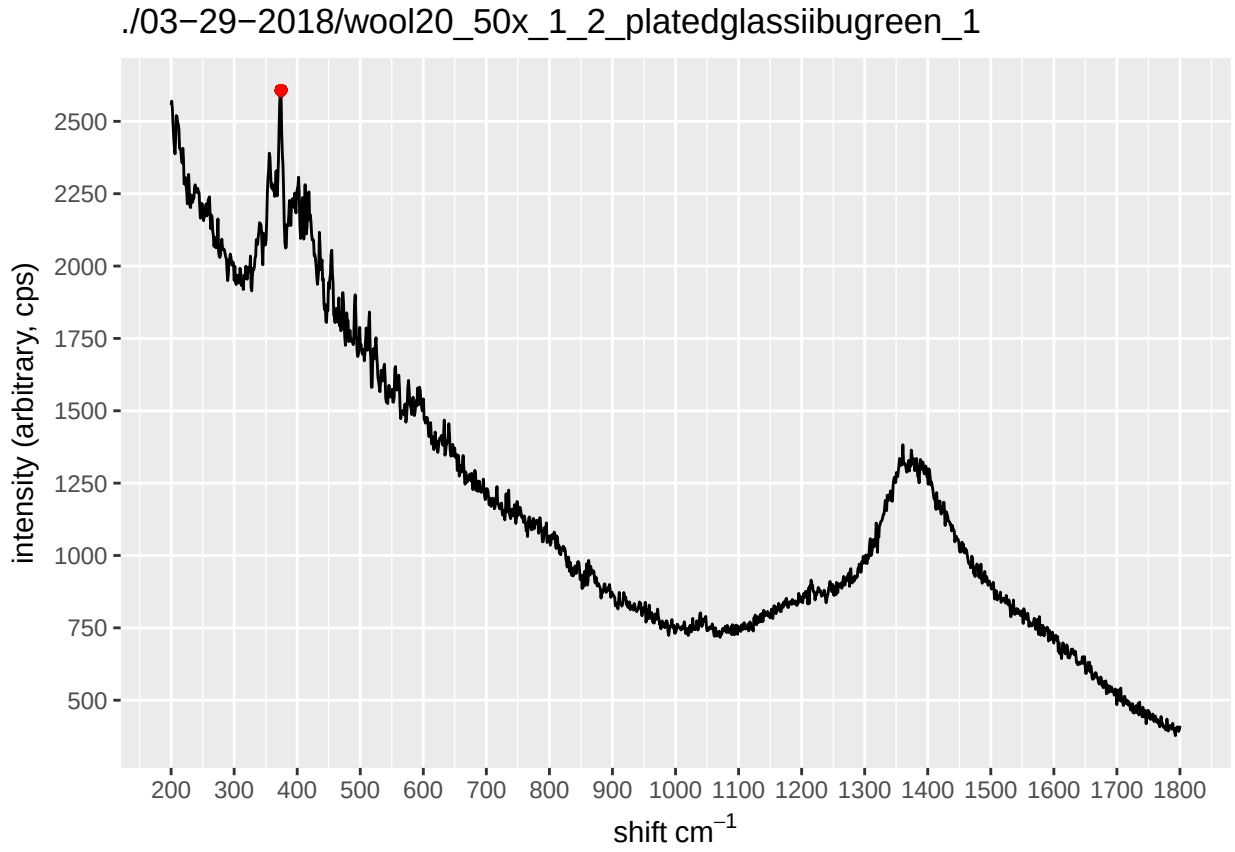
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

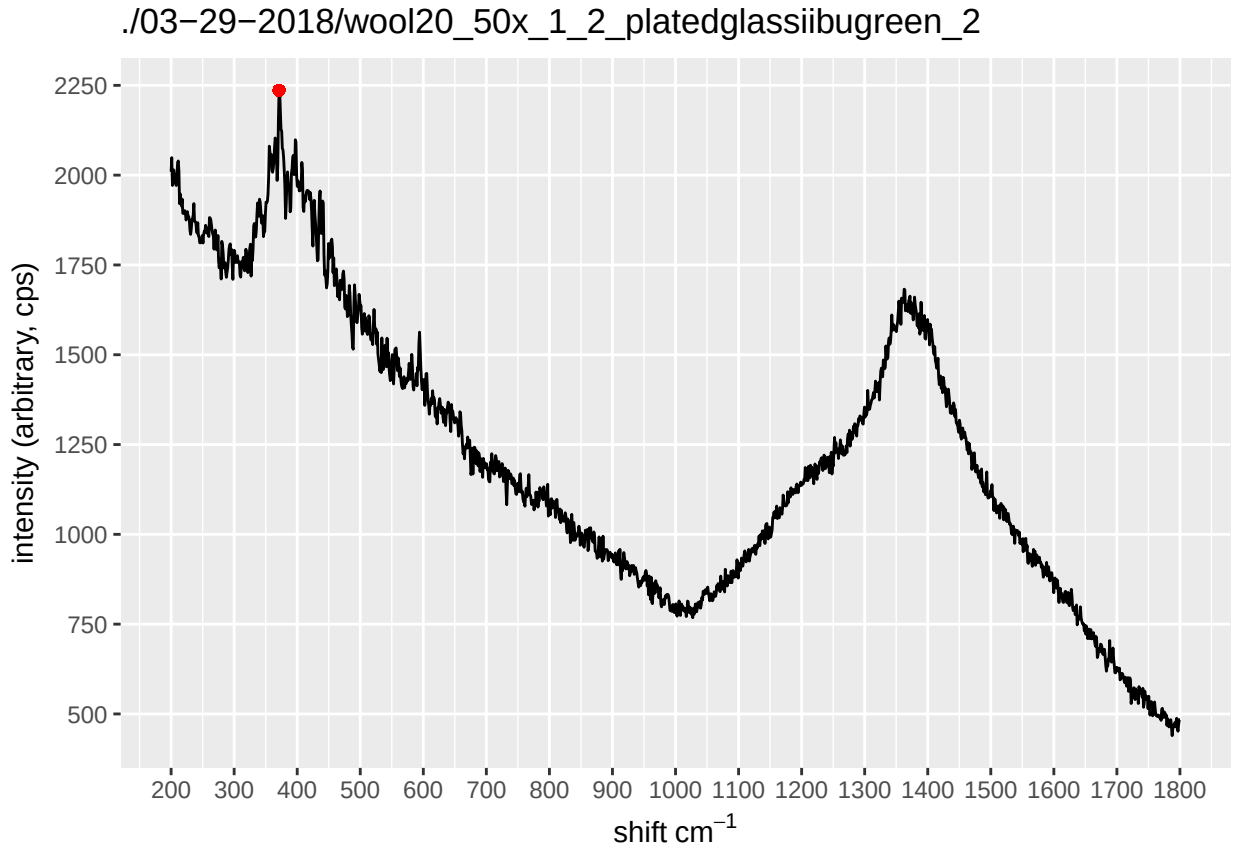
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_2
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

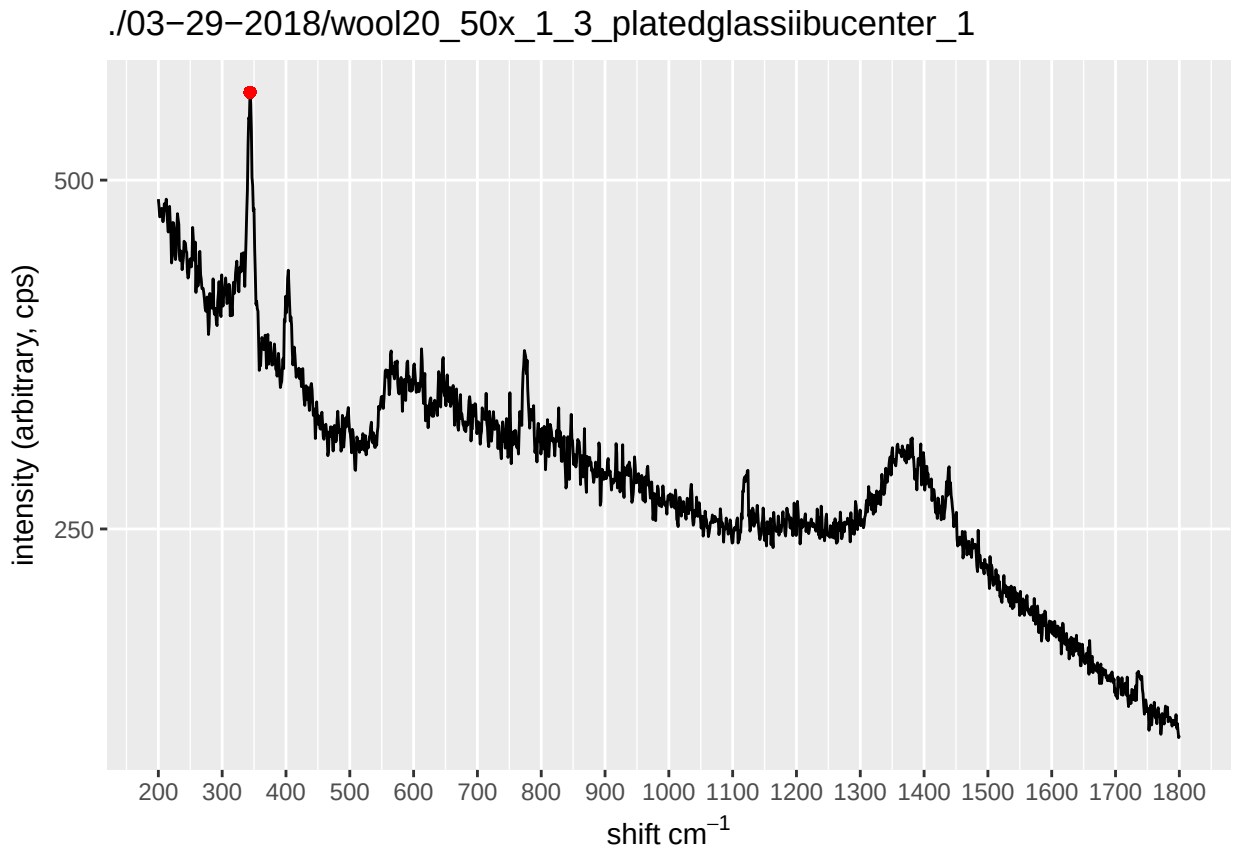
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_1
intensity (arbitrary, cps)
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

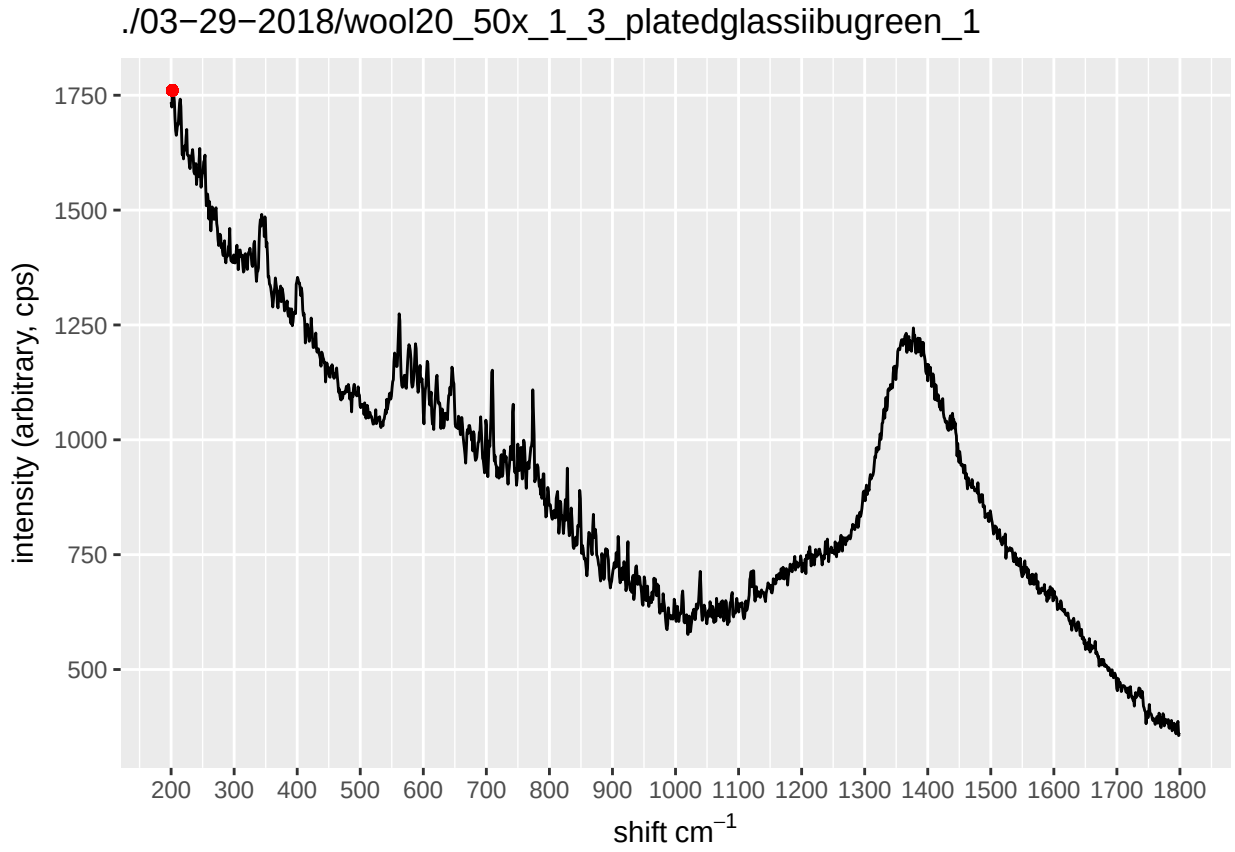
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_2
intensity (arbitrary, cps)
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

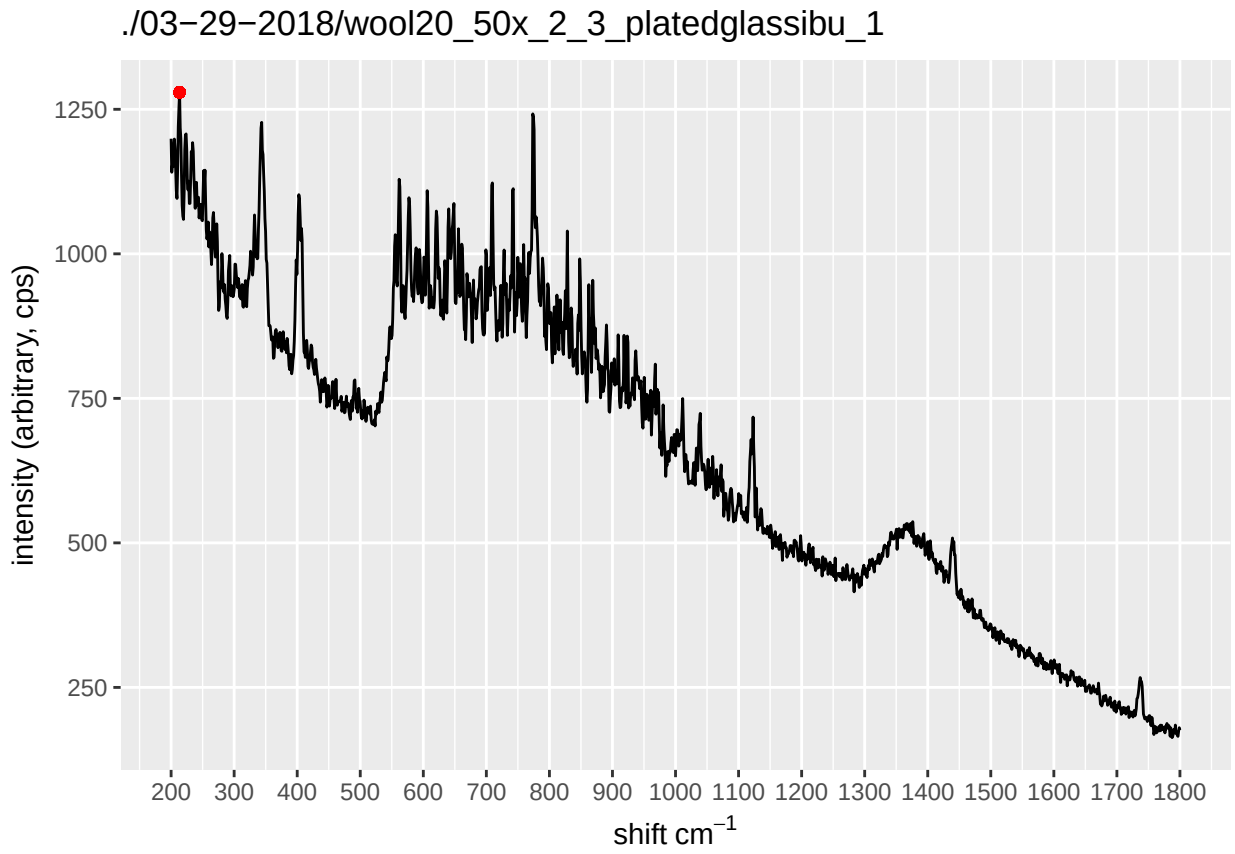
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibucenter_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

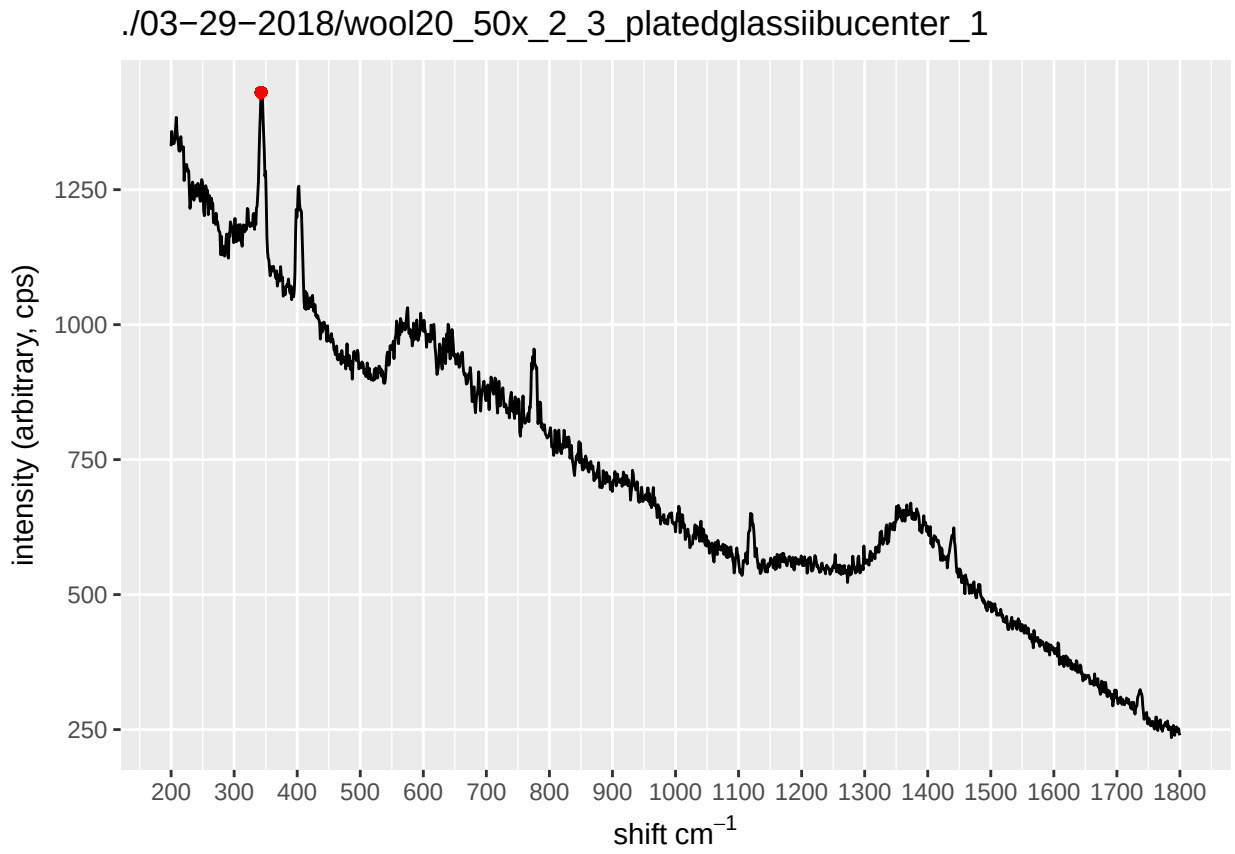
```
##
## $plot
```


./03−29−2018/wool20_50x_1_3_platedglassiibugreen_1
intensity (arbitrary, cps)
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

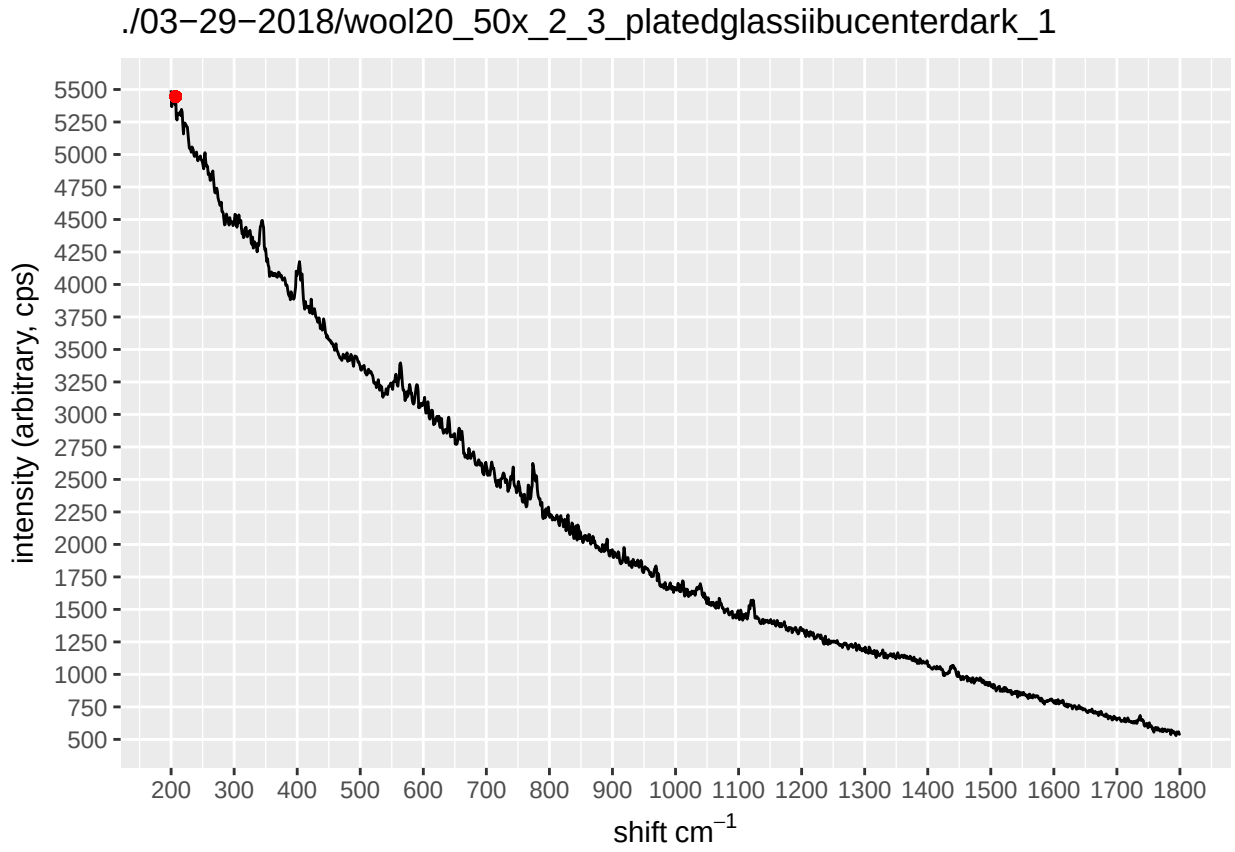
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassibu_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

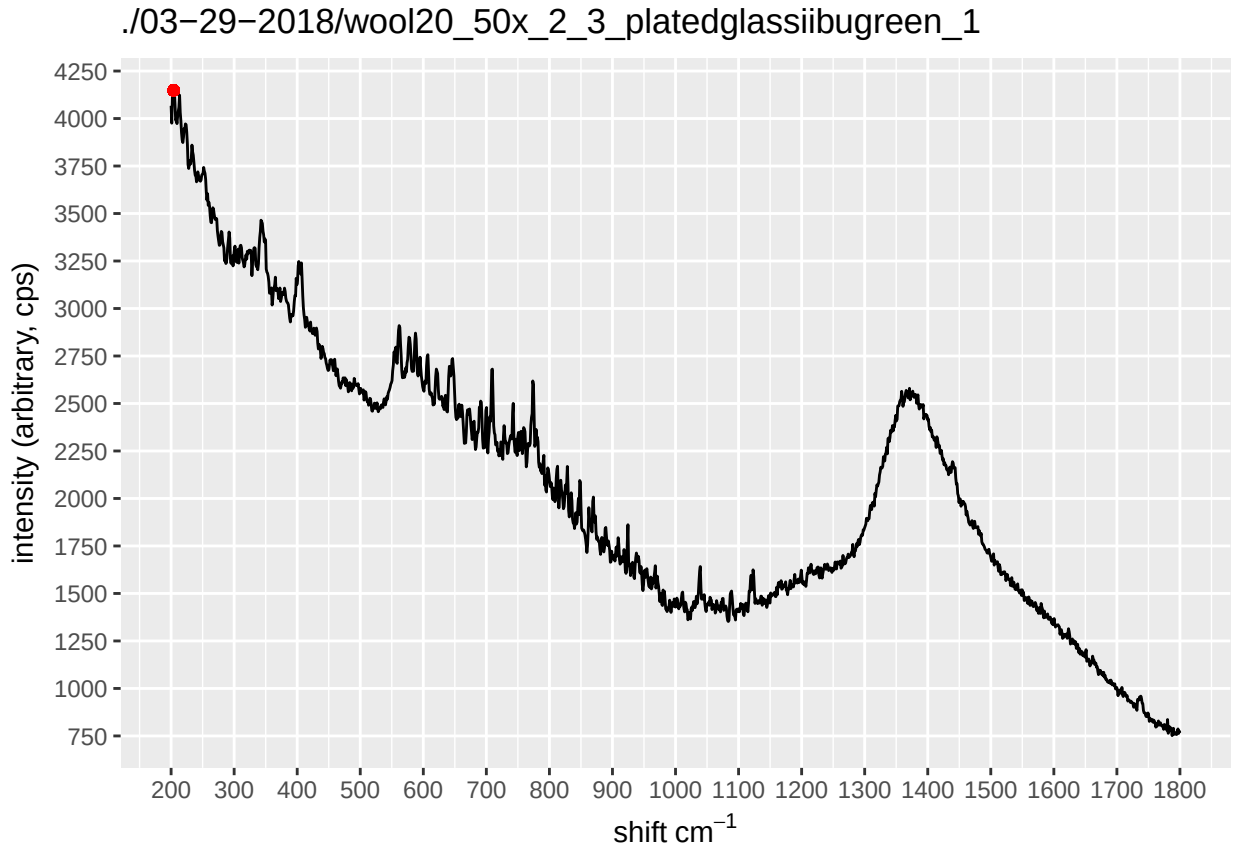
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenter_1
intensity (arbitrary, cps)
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

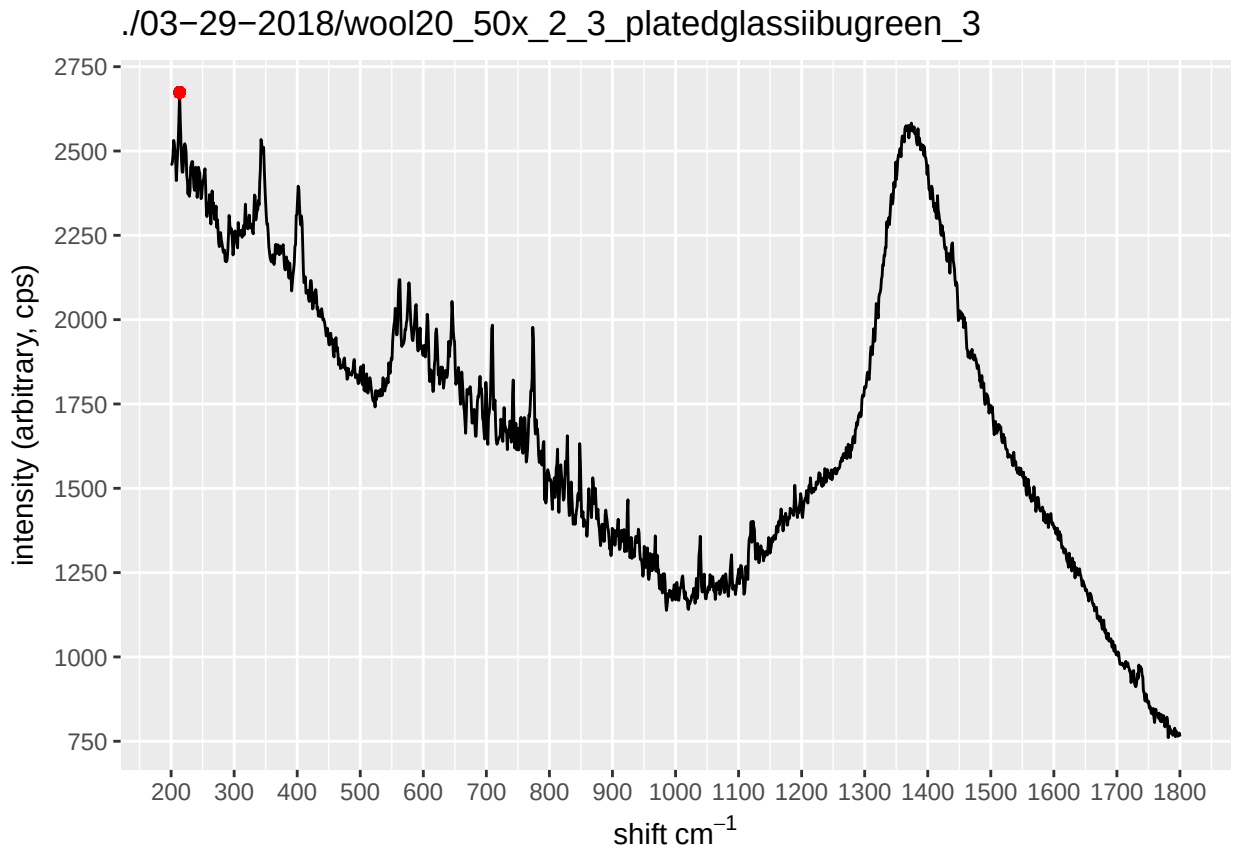
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibucenterdark_1
intensity (arbitrary, cps)
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

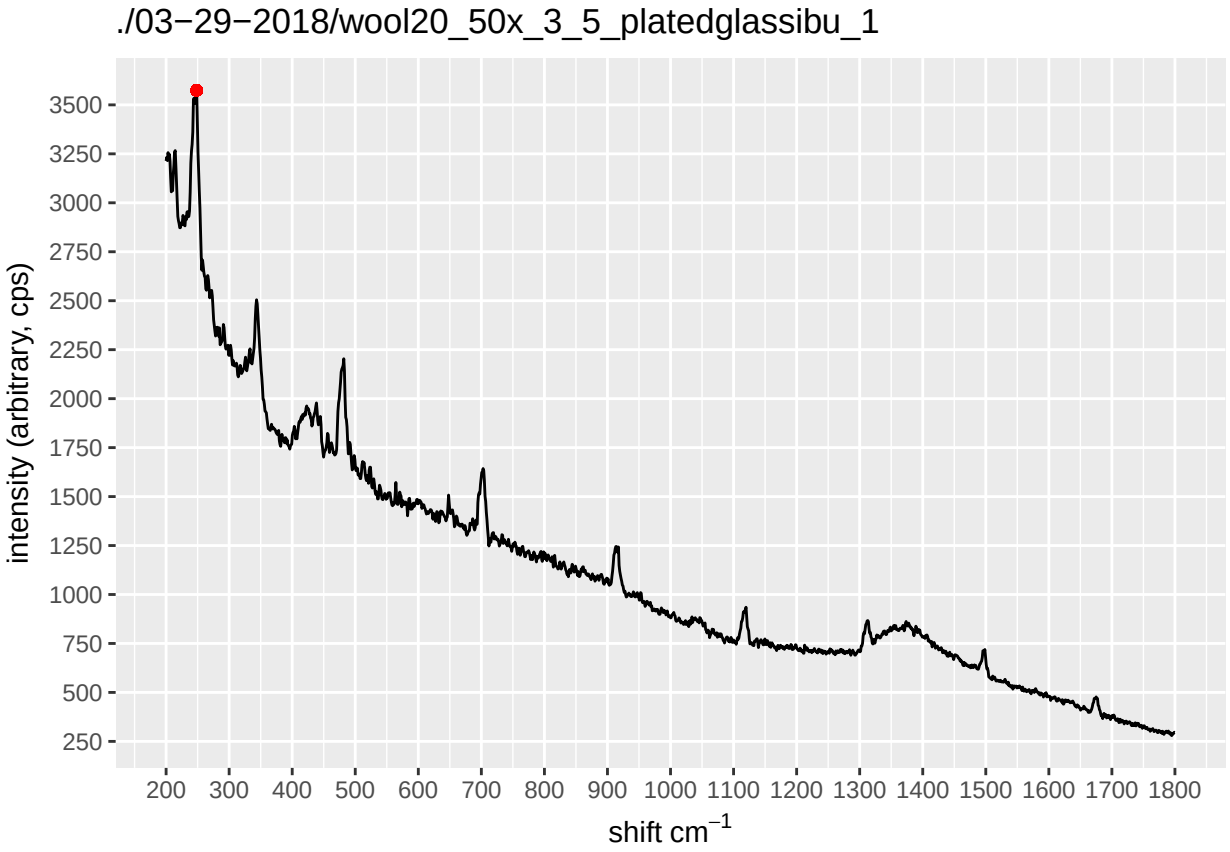
```
##
## $plot
```


./03−29−2018/wool20_50x_2_3_platedglassiibugreen_1
intensity (arbitrary, cps)
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

```
##
## $plot
```

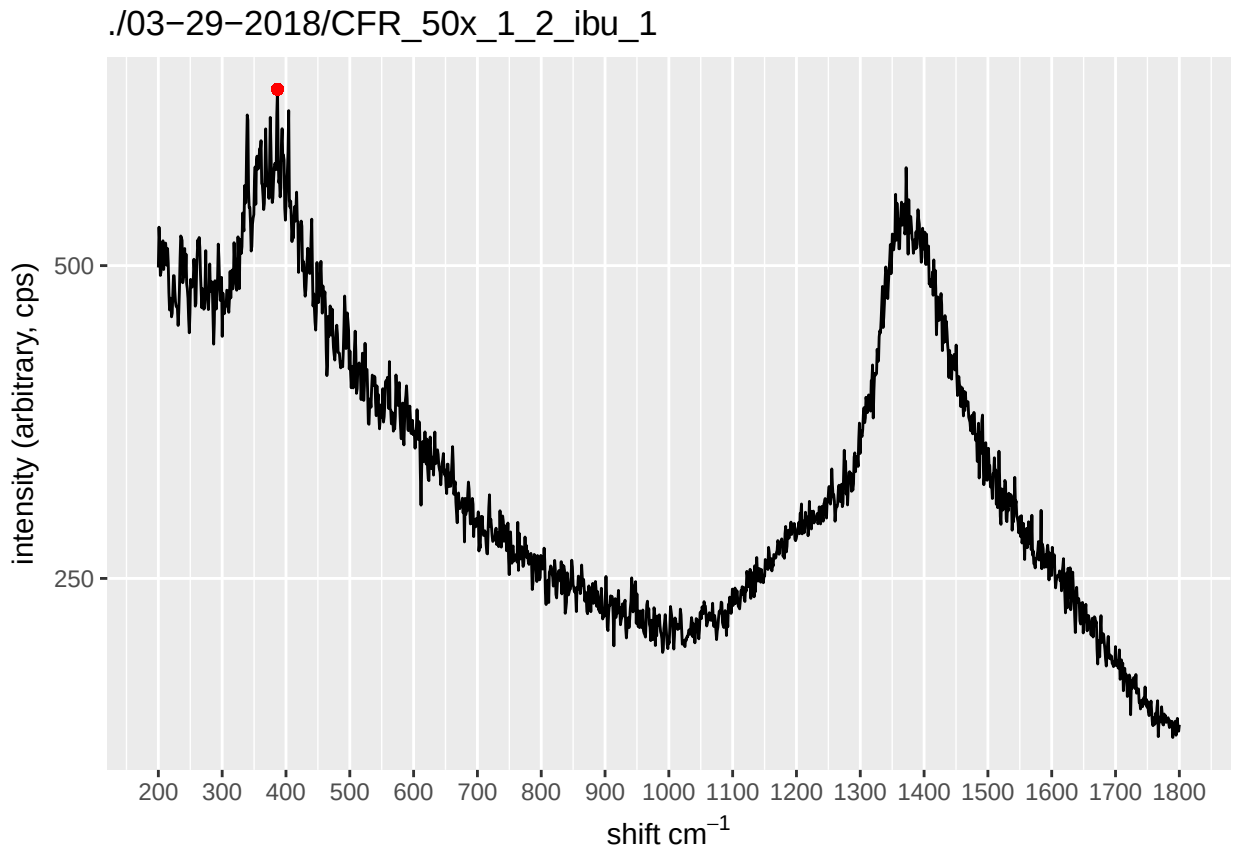

./03−29−2018/wool20_50x_2_3_platedglassiibugreen_3
intensity (arbitrary, cps)
2750
2500
2250
2000
1750
1500
1250
1000
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

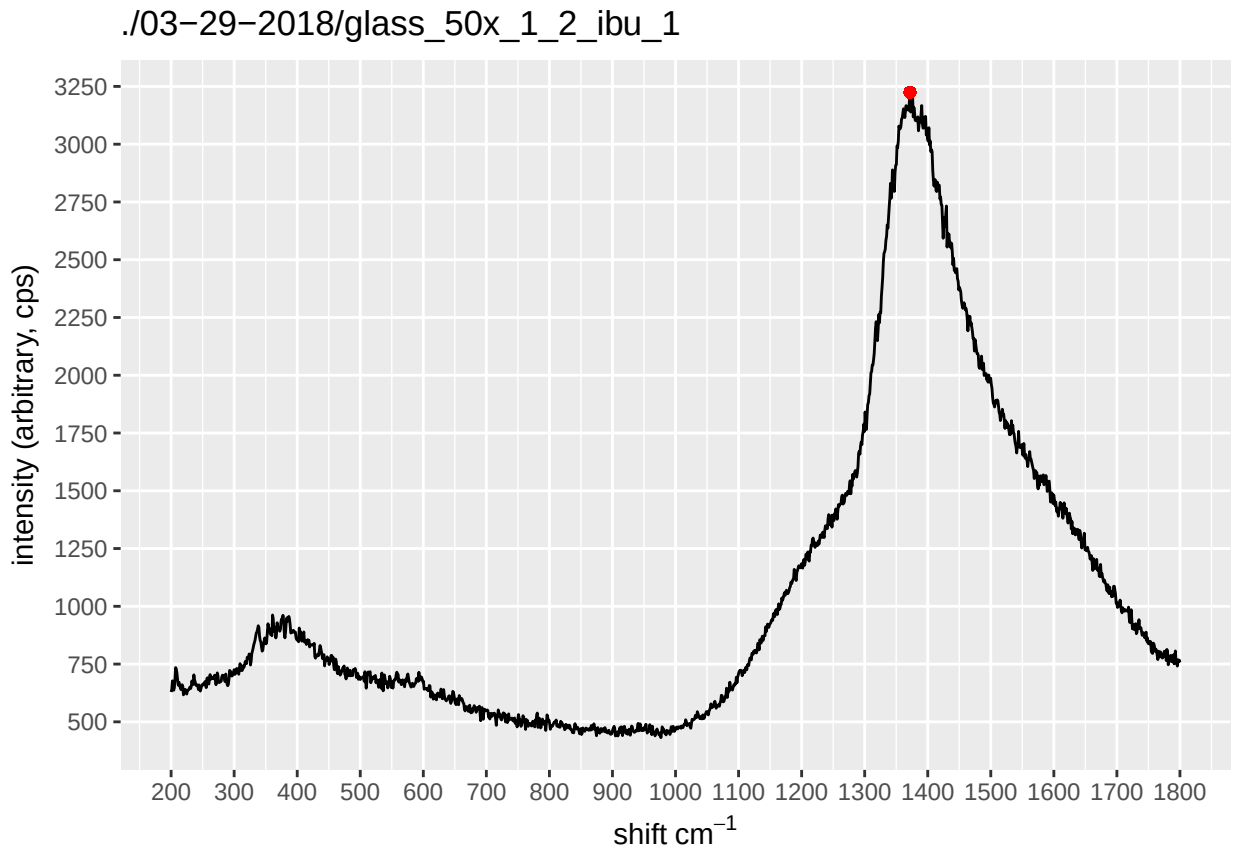


1s, 2 reps

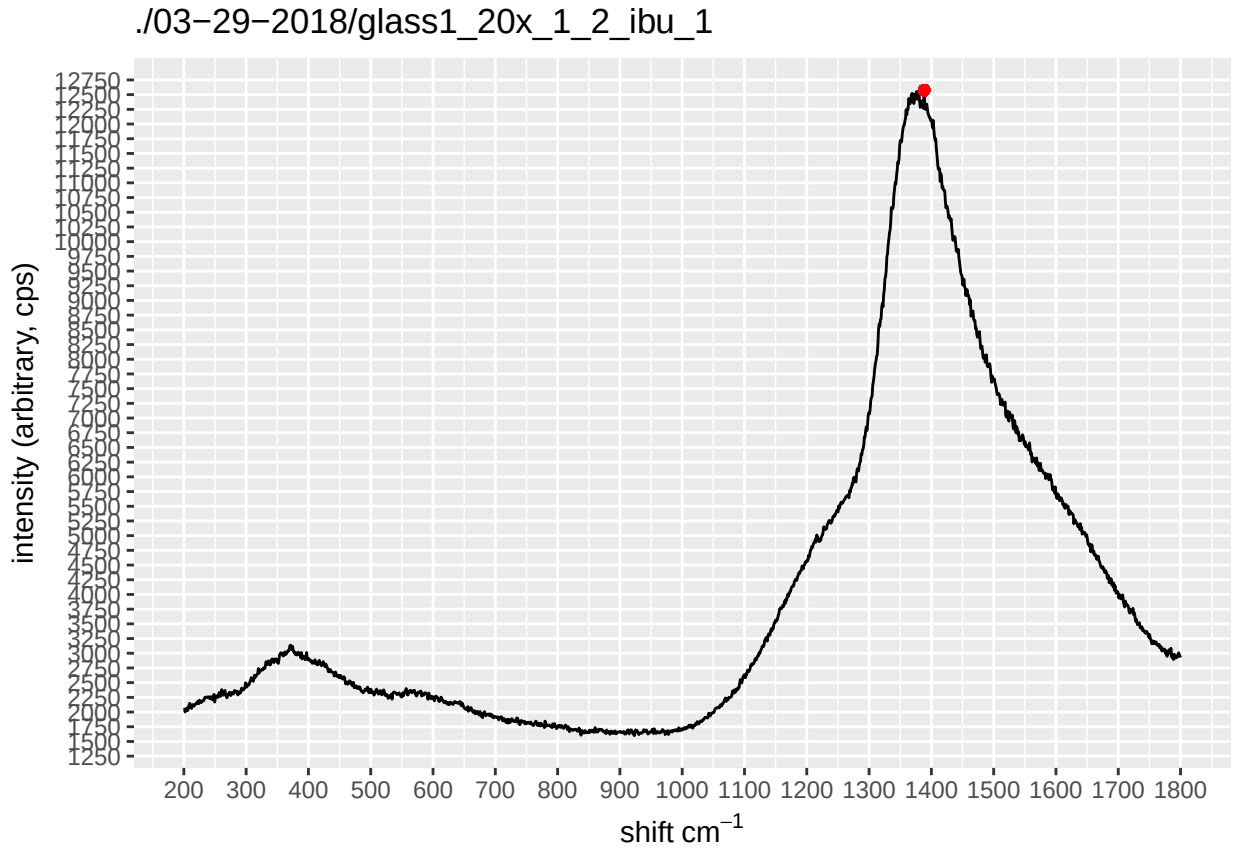
```
## $plot
```


./03−29−2018/CFR_50x_1_2_ibu_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

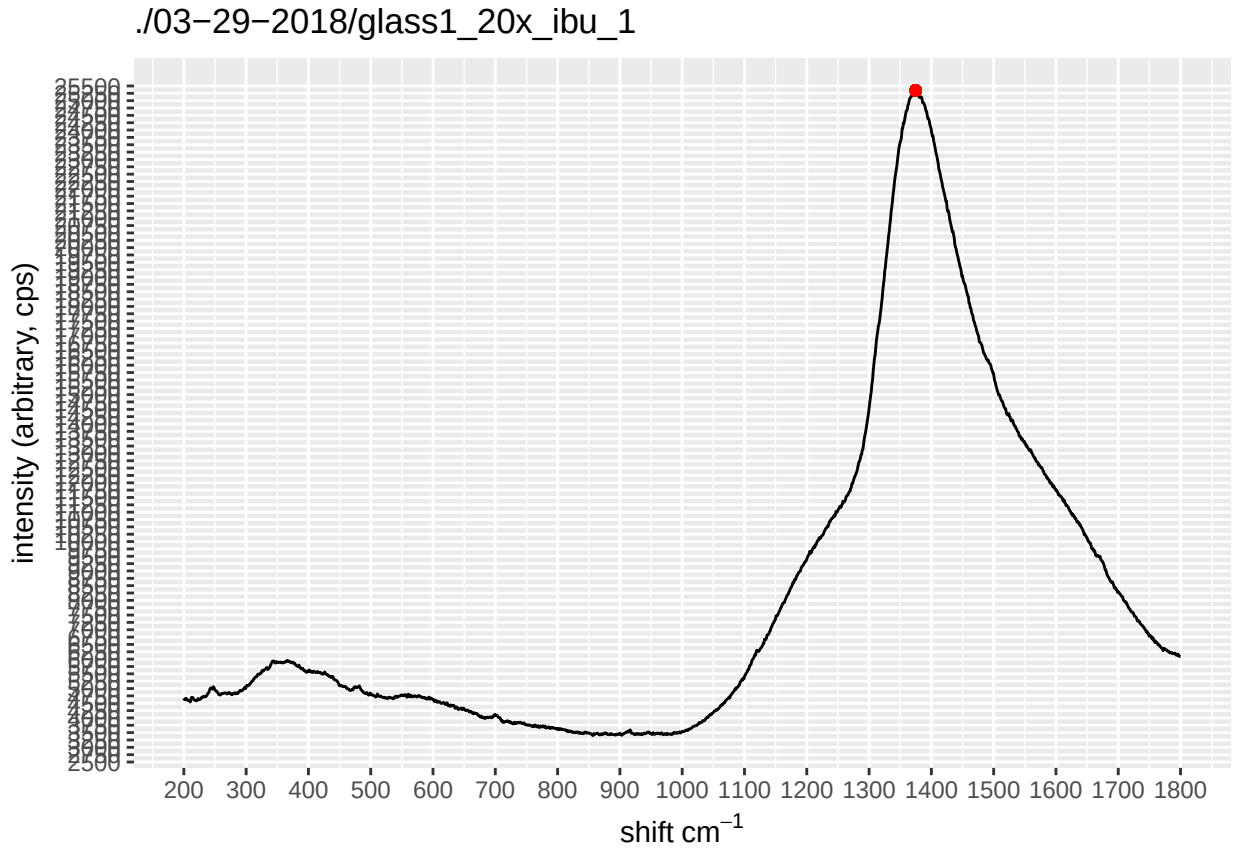
```
##
## $plot
```


./03−29−2018/glass_50x_1_2_ibu_1
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

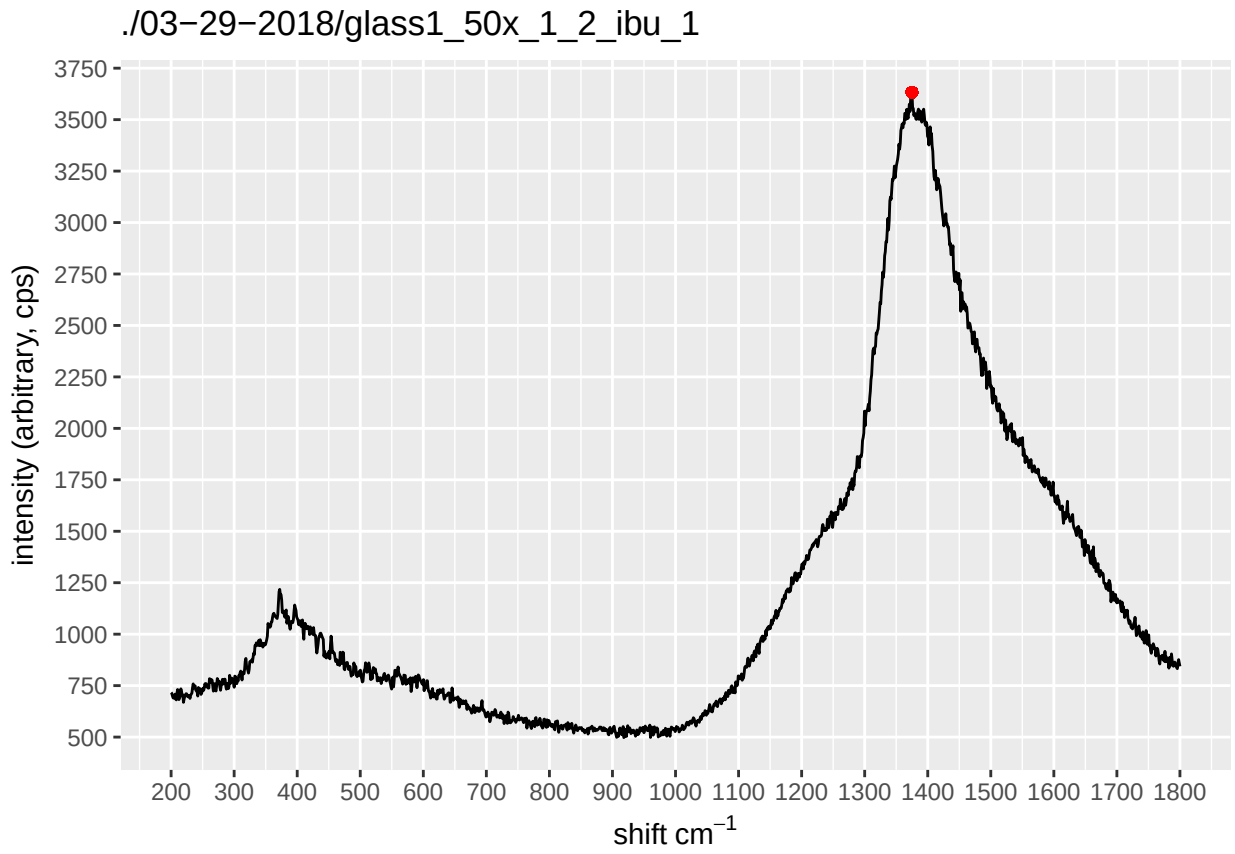
```
##
## $plot
```


./03−29−2018/glass1_20x_1_2_ibu_1
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

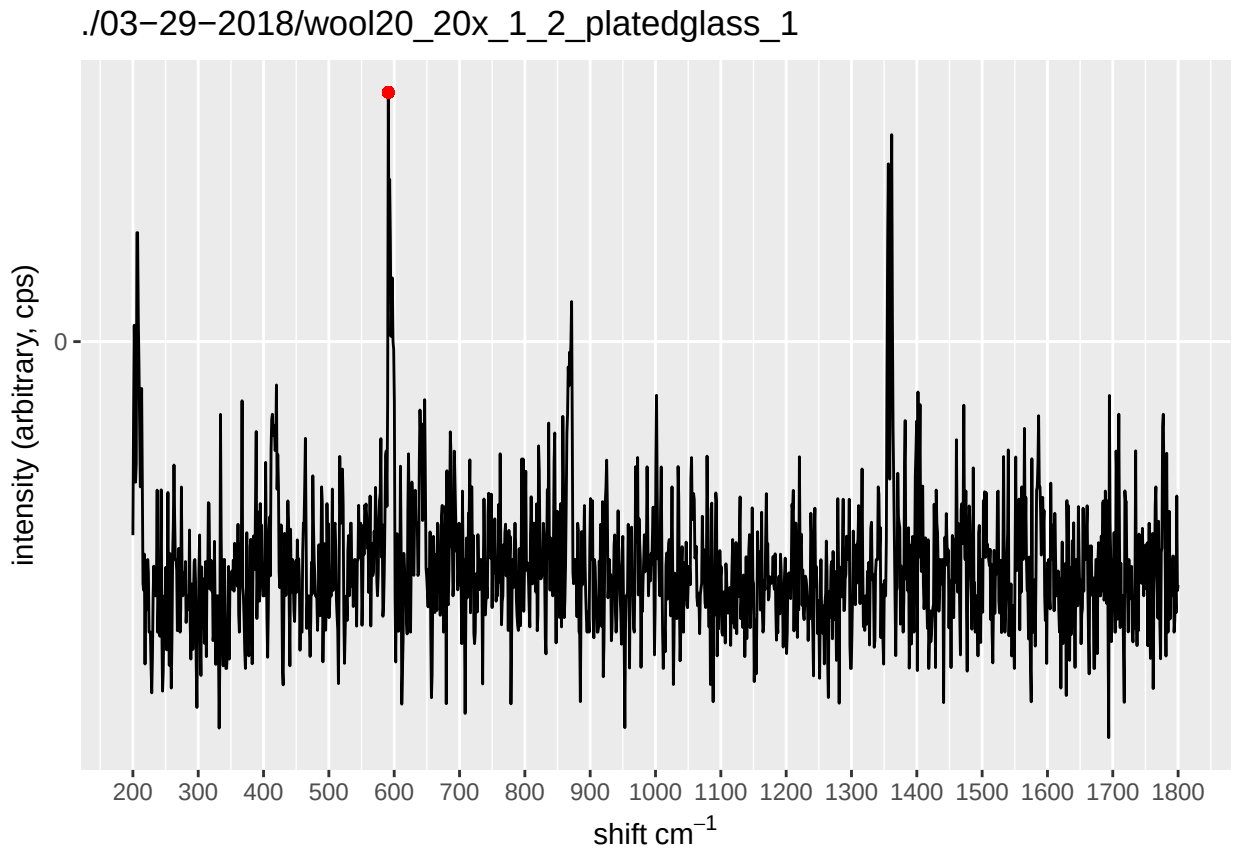
```
##
## $plot
```


./03−29−2018/glass1_20x_ibu_1
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

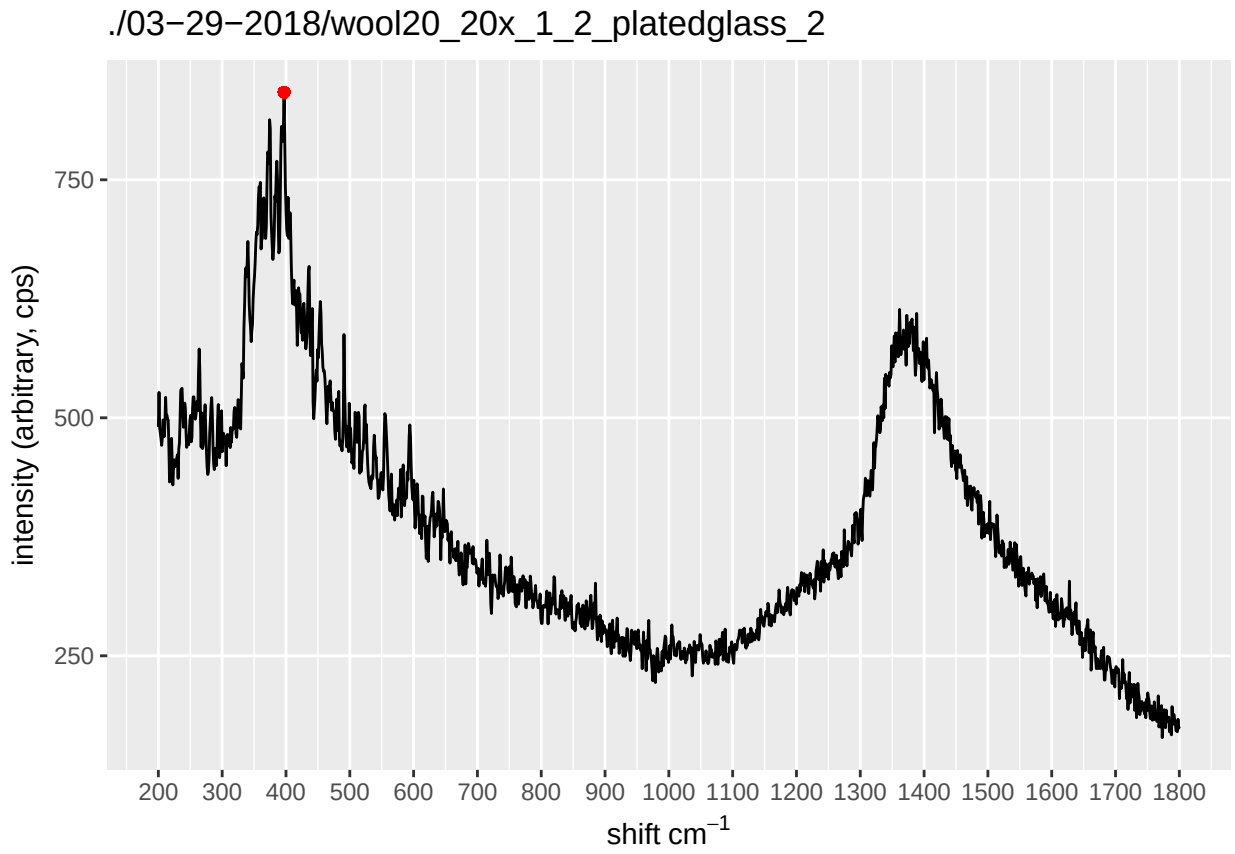
```
##
## $plot
```


./03−29−2018/glass1_50x_1_2_ibu_1
intensity (arbitrary, cps)
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

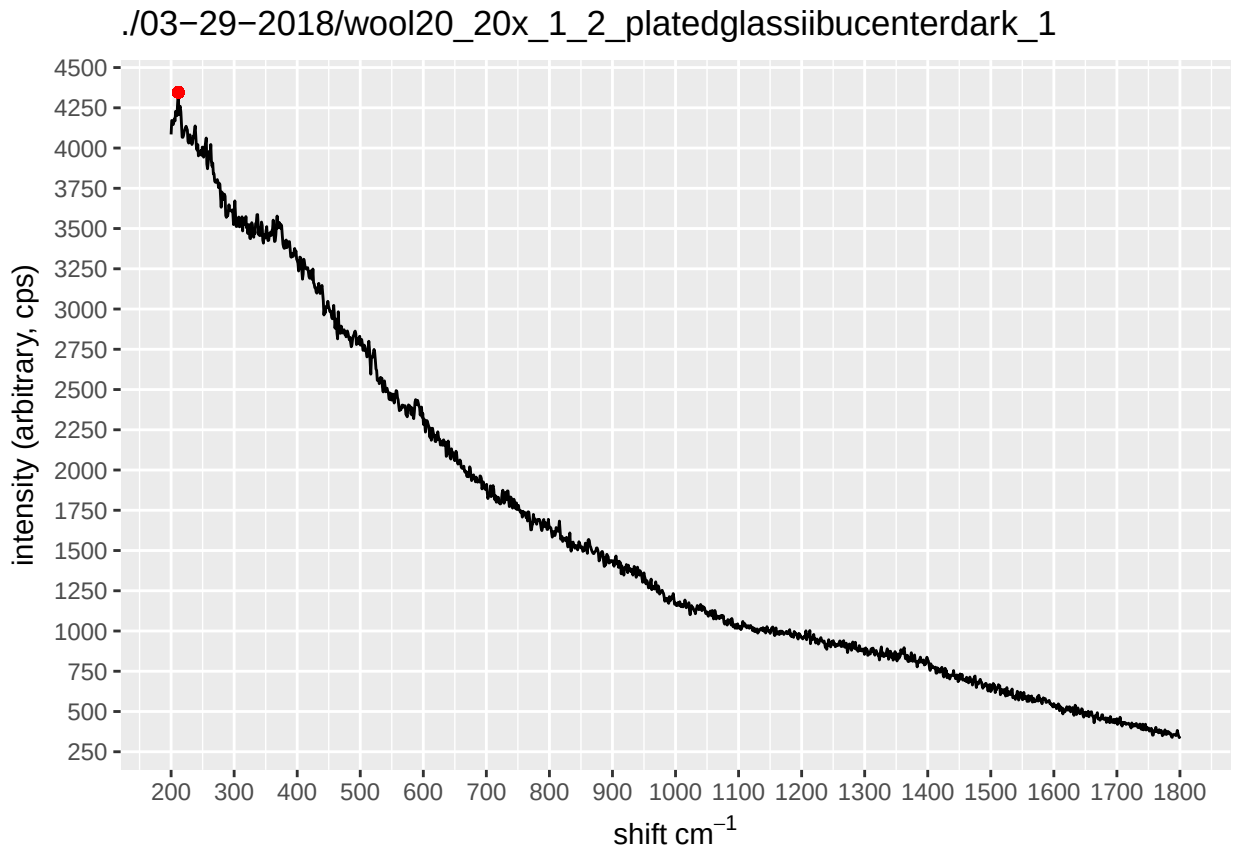
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_1
intensity (arbitrary, cps)
0
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

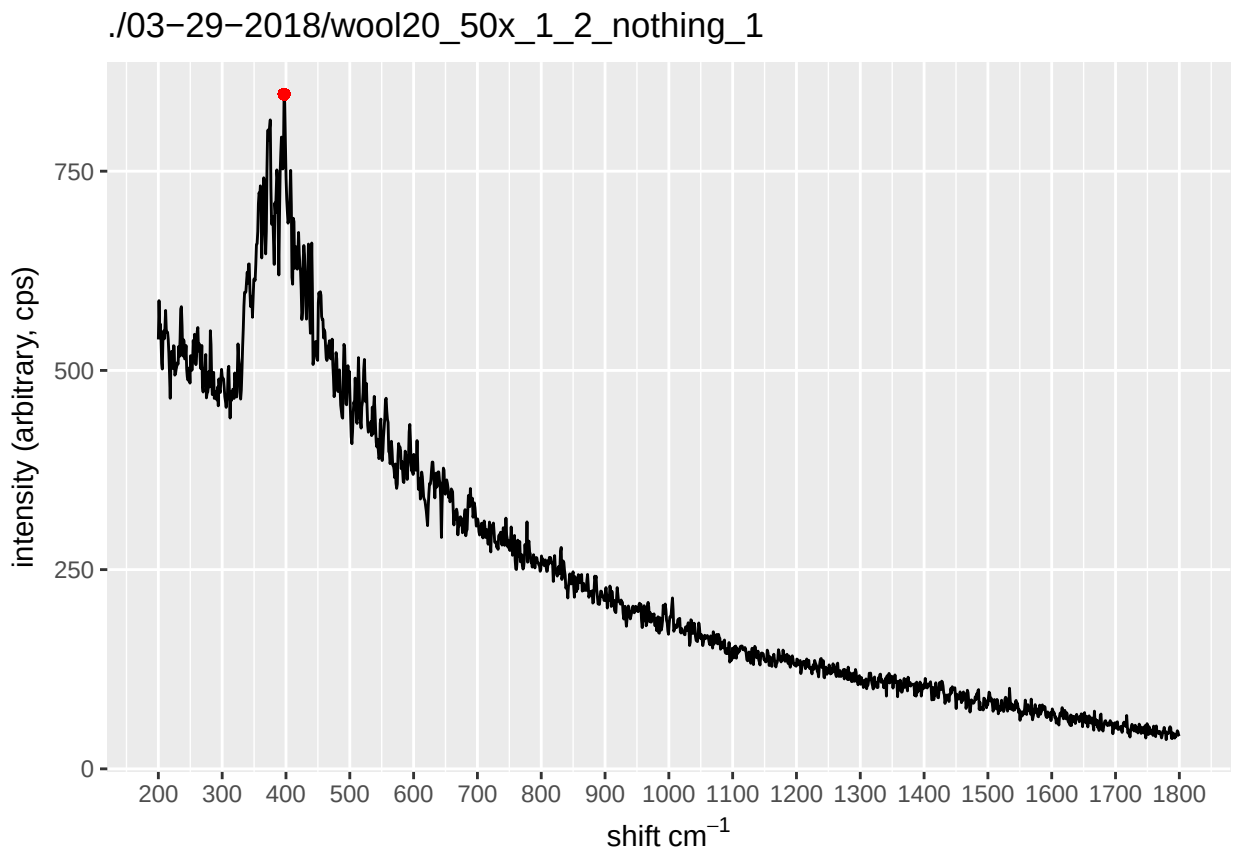
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_2
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

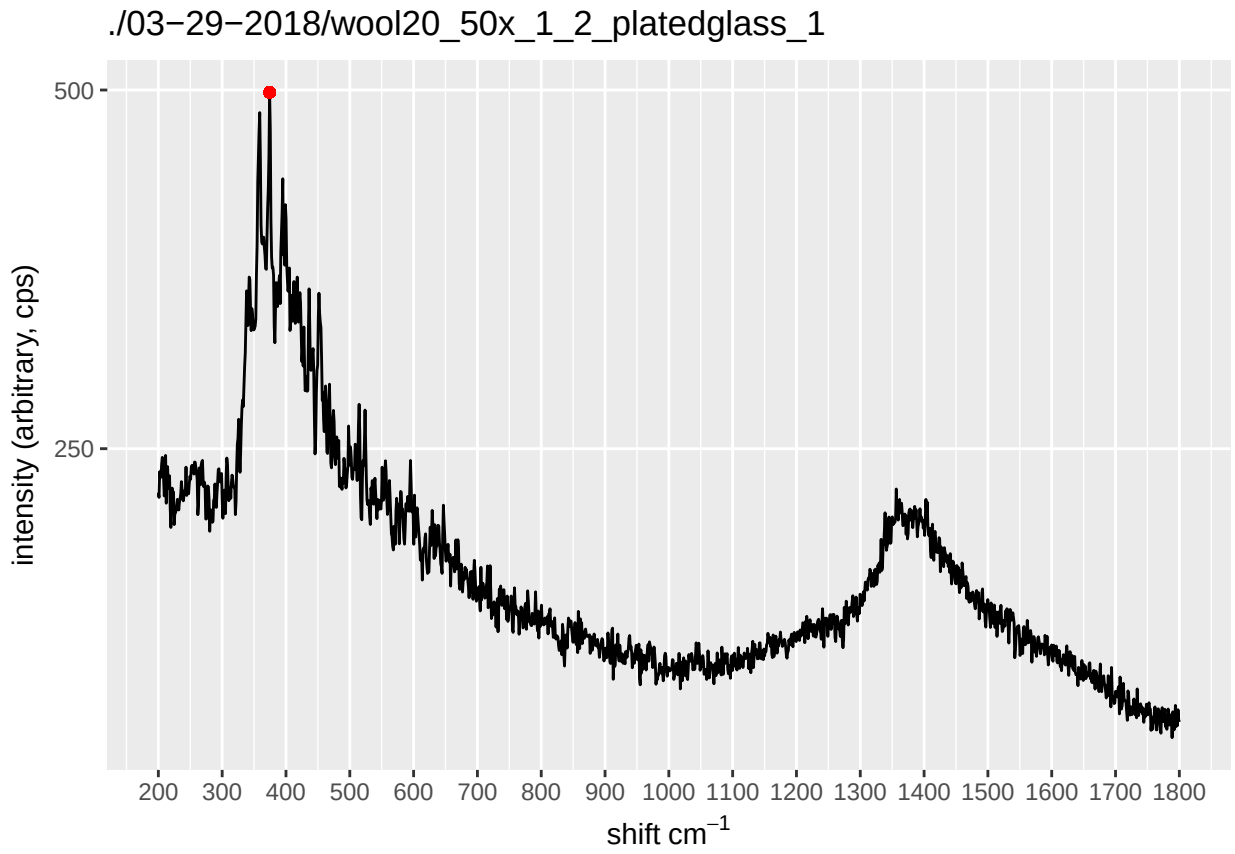
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

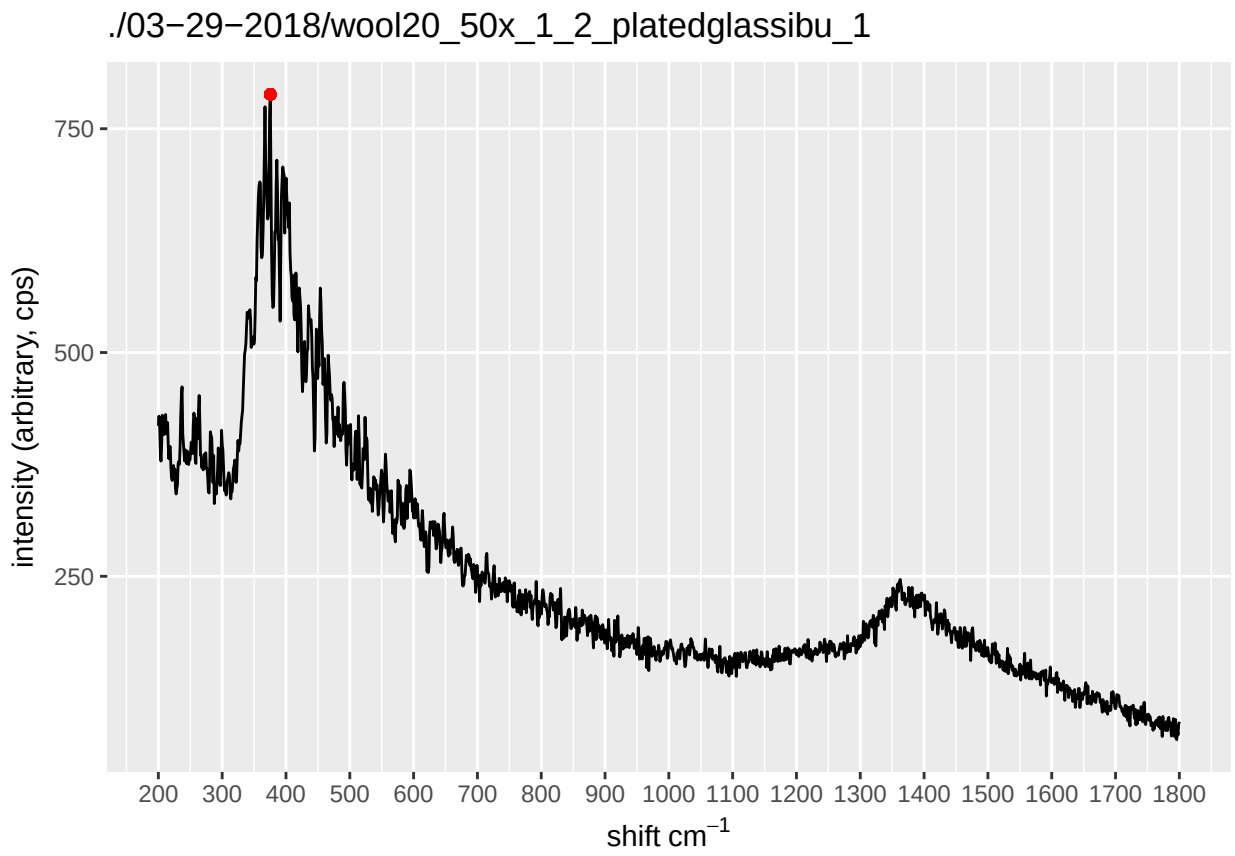
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_nothing_1
intensity (arbitrary, cps)
0
250
500
750
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

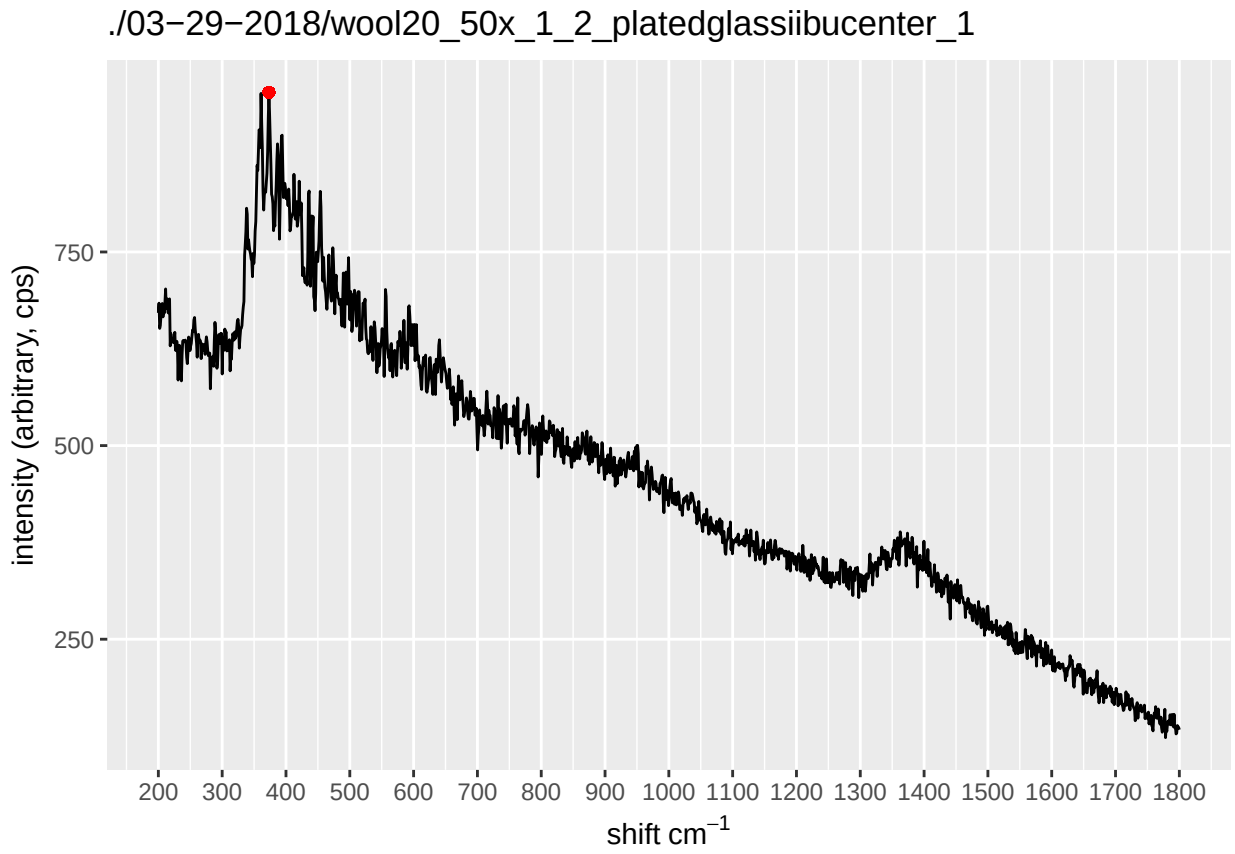
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglass_1
500
250
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

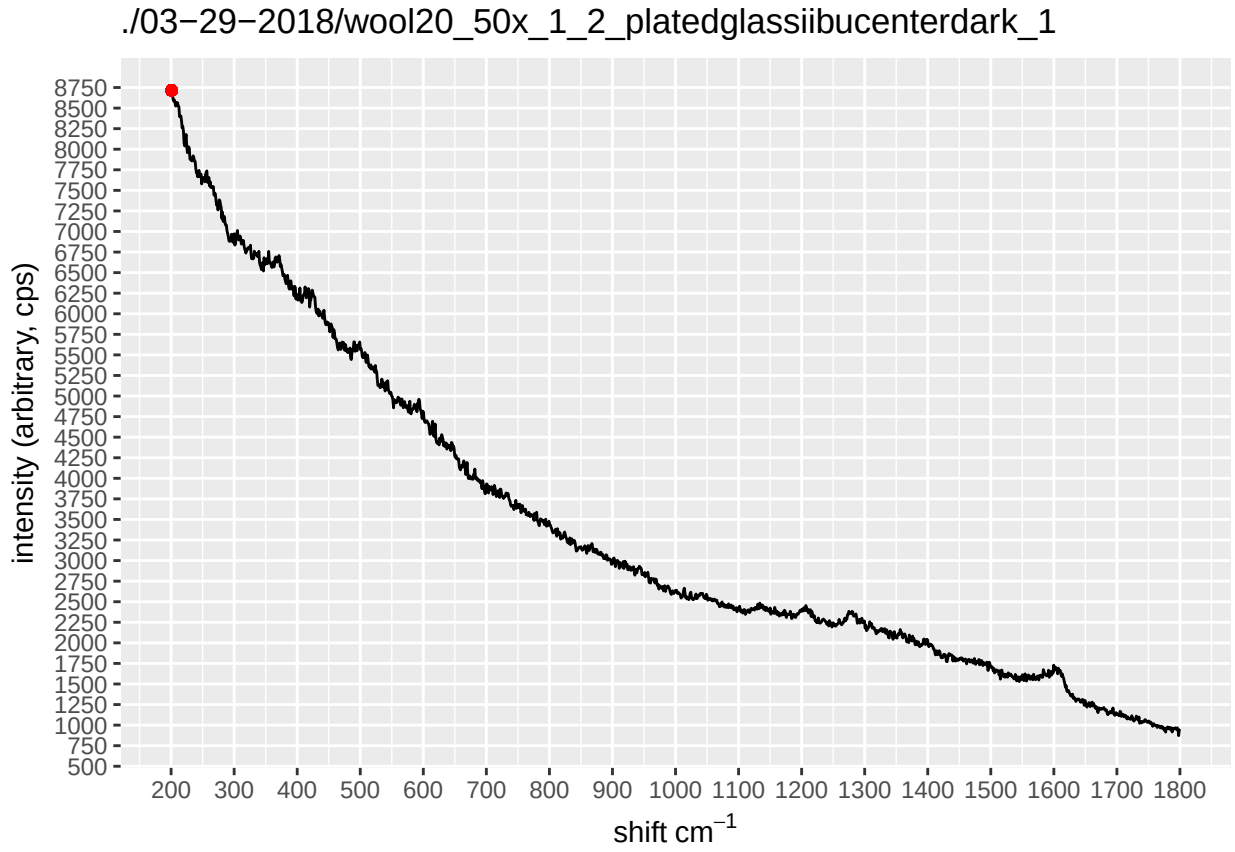
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassibu_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

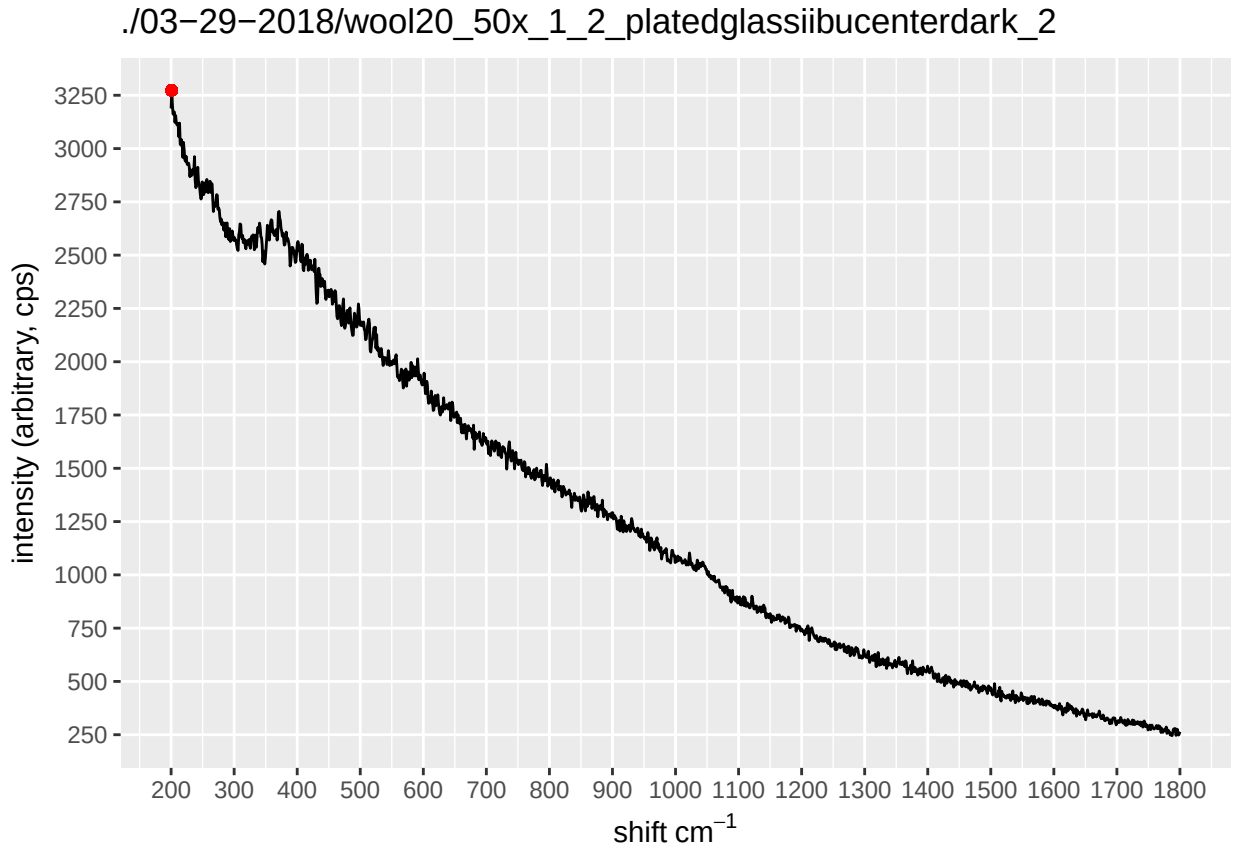
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenter_1
intensity (arbitrary, cps)
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

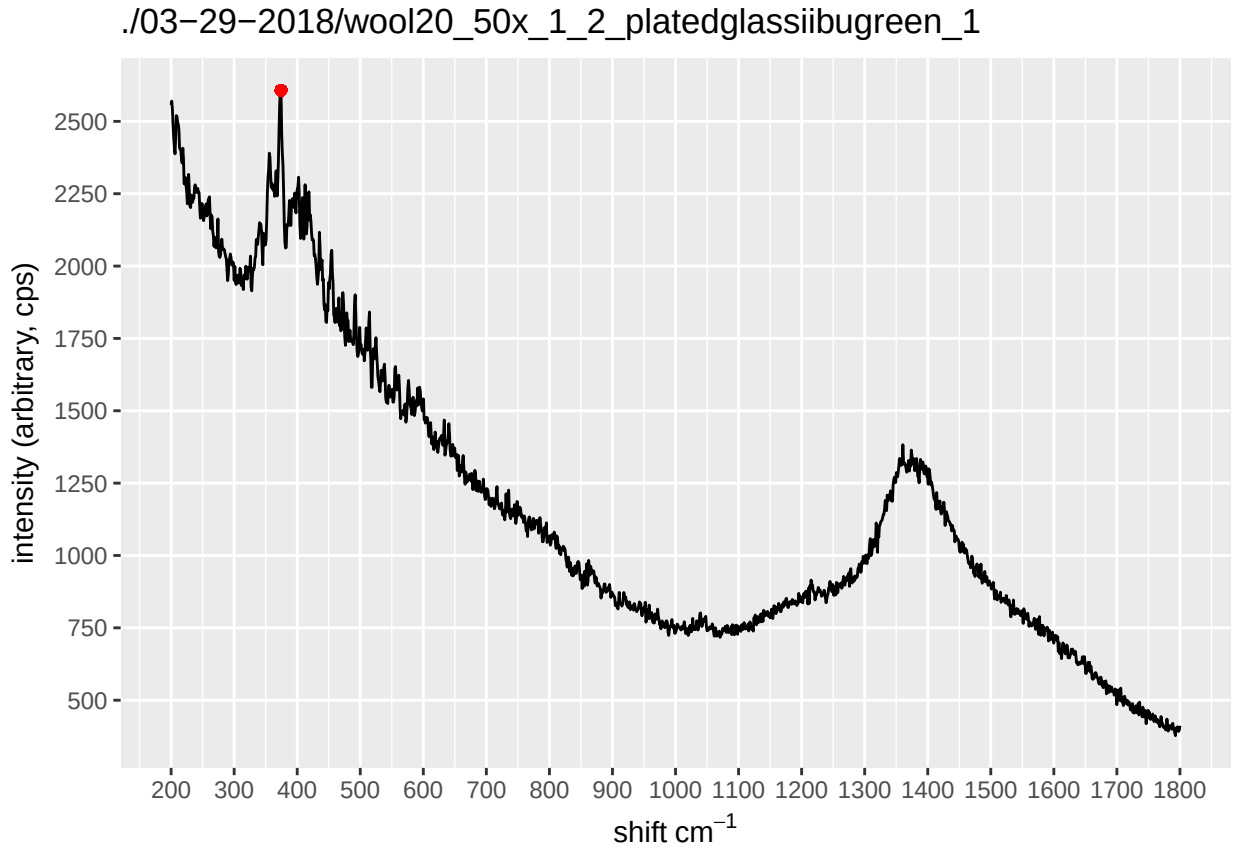
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

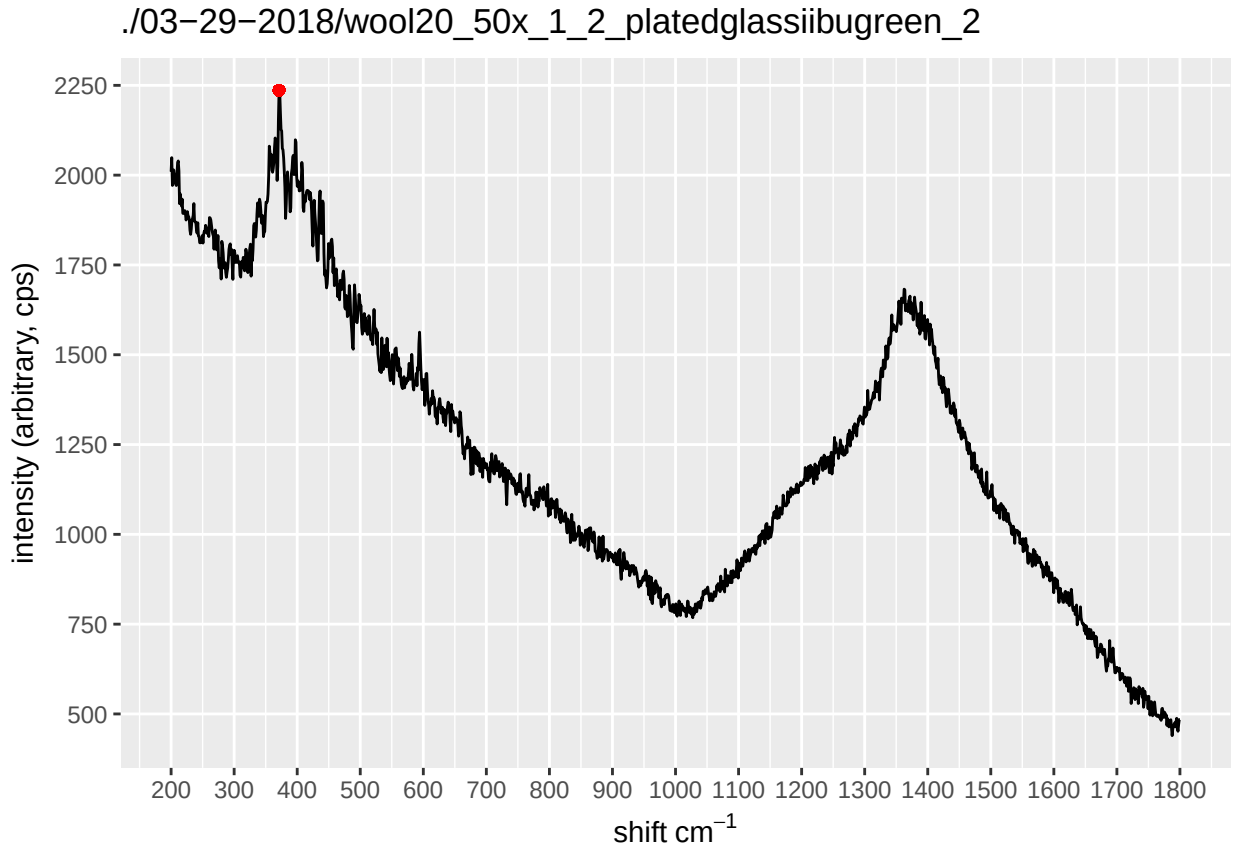
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_2
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

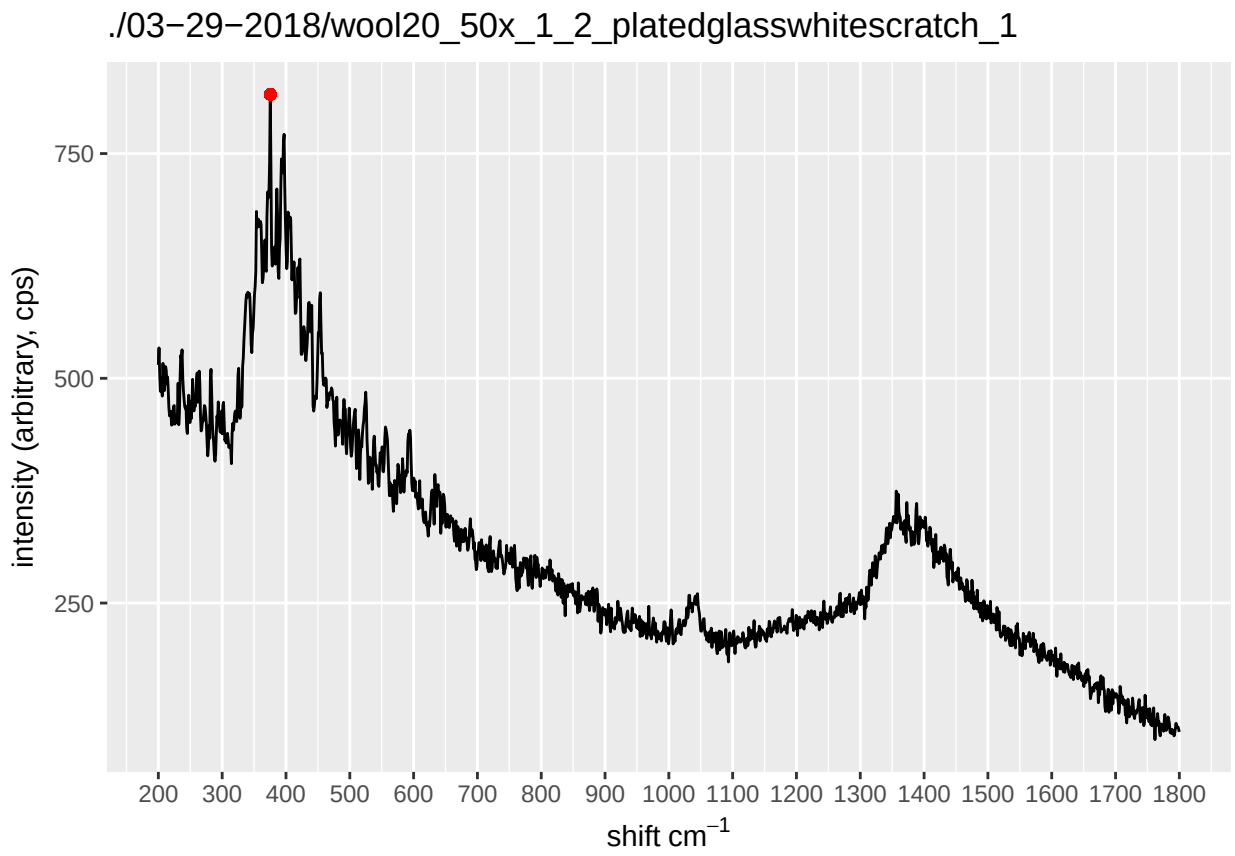
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_1
intensity (arbitrary, cps)
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

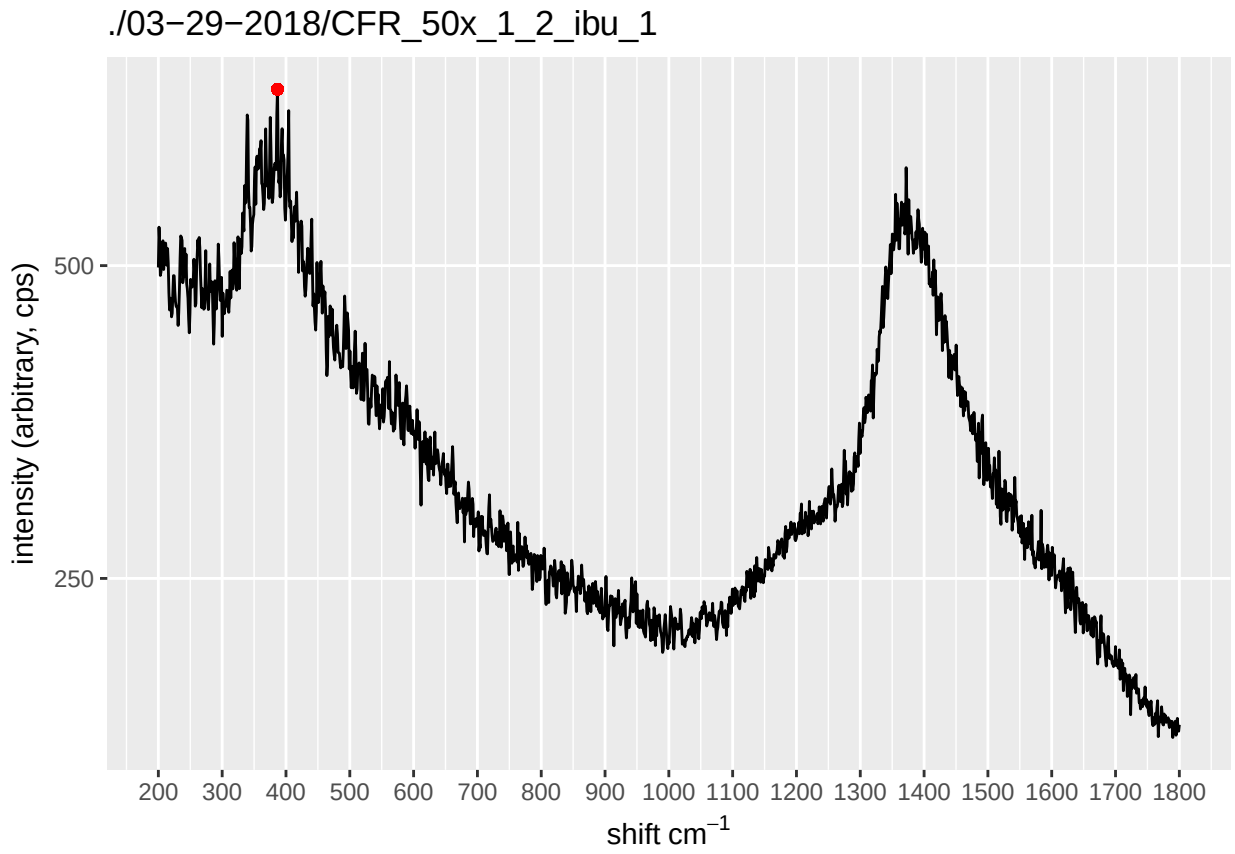

./03−29−2018/wool20_50x_1_2_platedglassiibugreen_2
intensity (arbitrary, cps)
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```

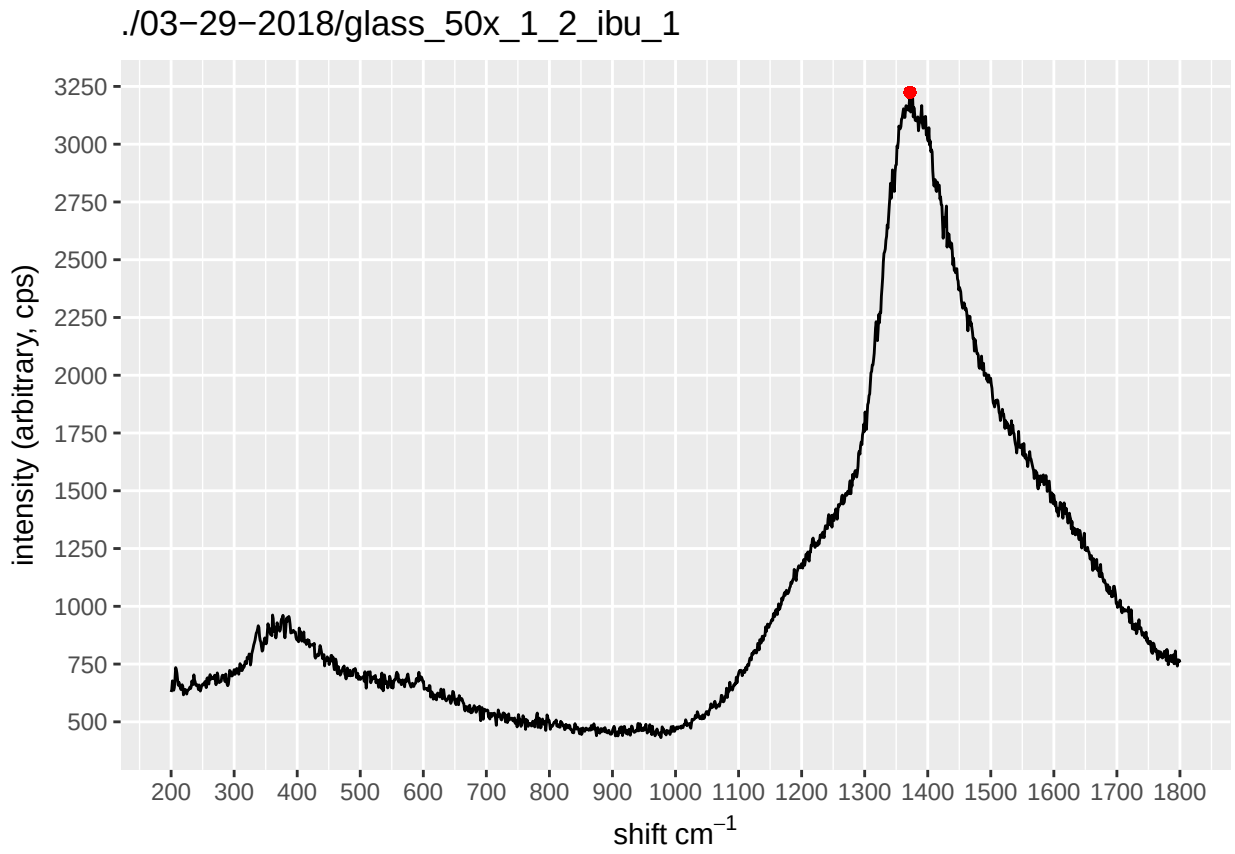


2s, 3 reps

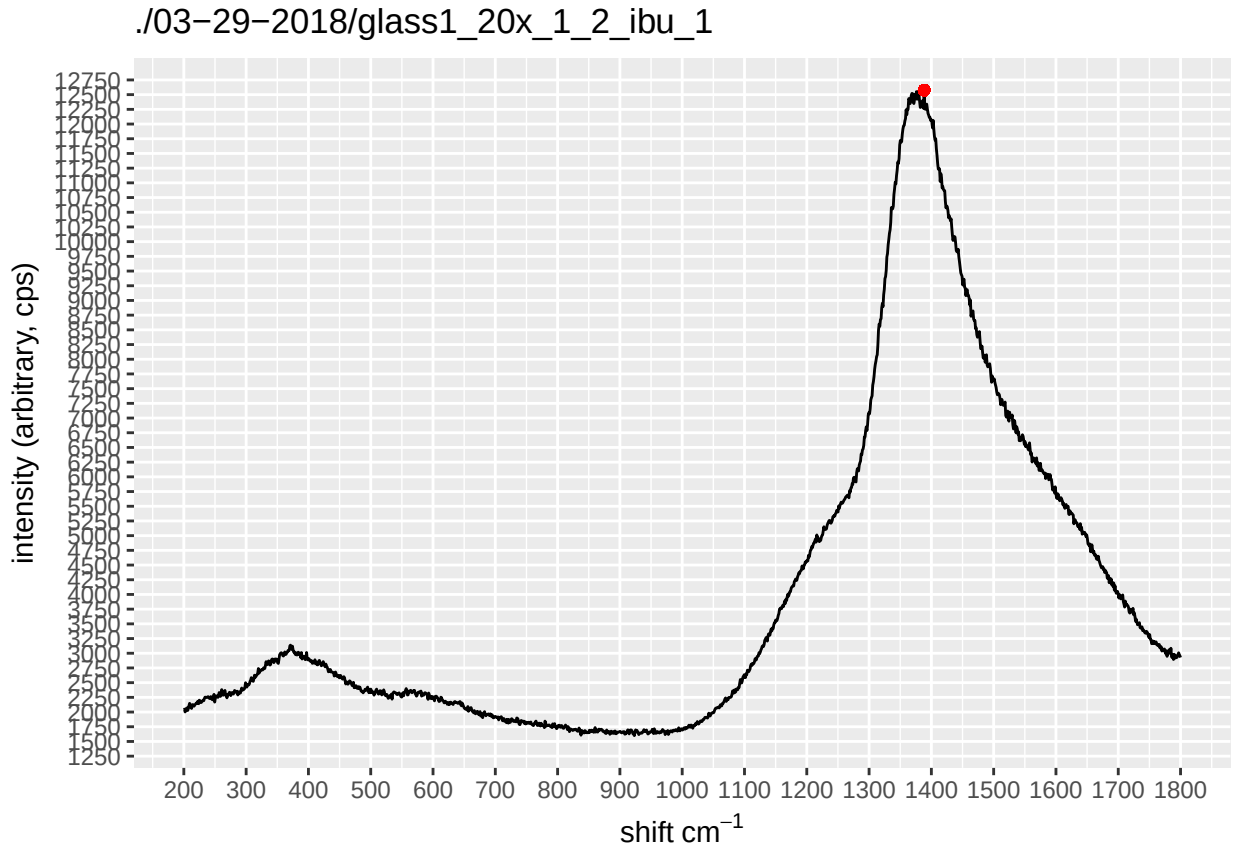
```
## $plot
```


./03−29−2018/CFR_50x_1_2_ibu_1
intensity (arbitrary, cps)
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

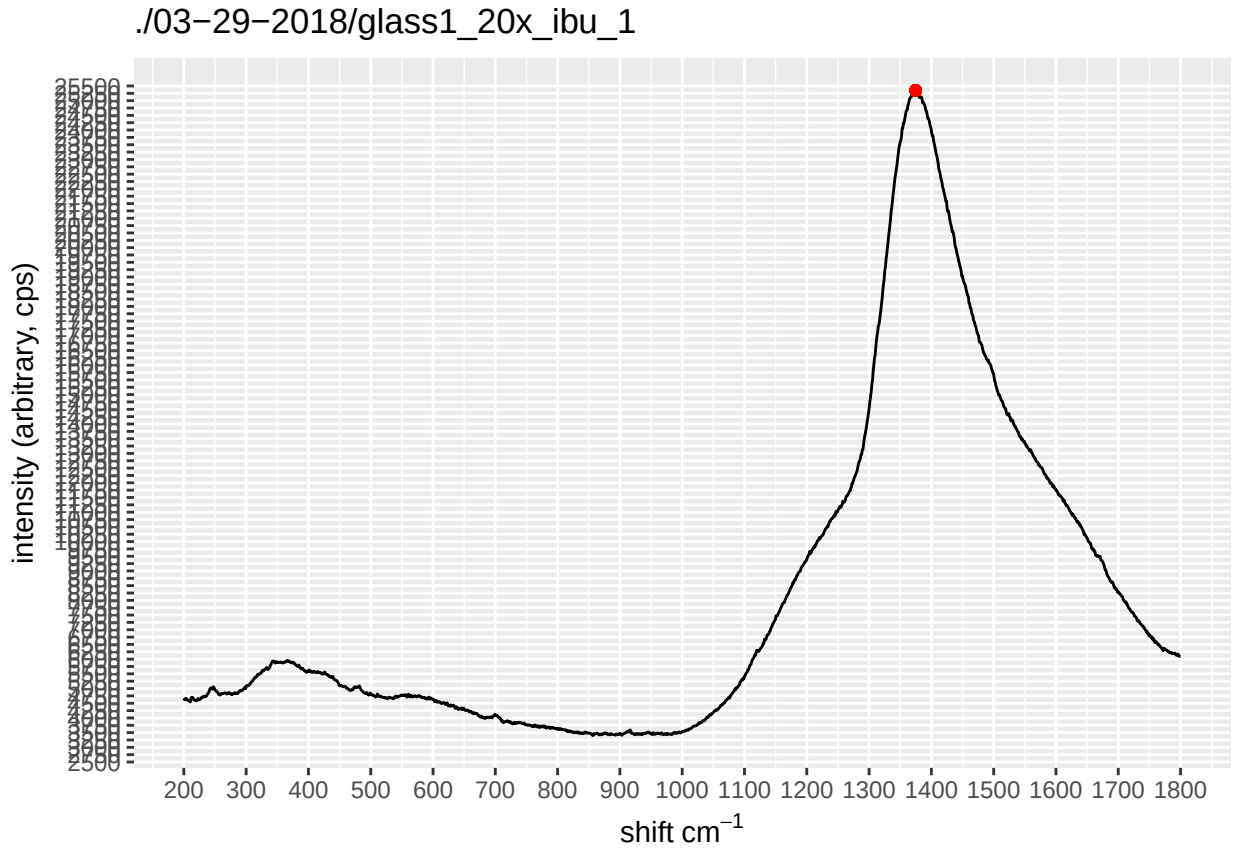
```
##
## $plot
```


./03−29−2018/glass_50x_1_2_ibu_1
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

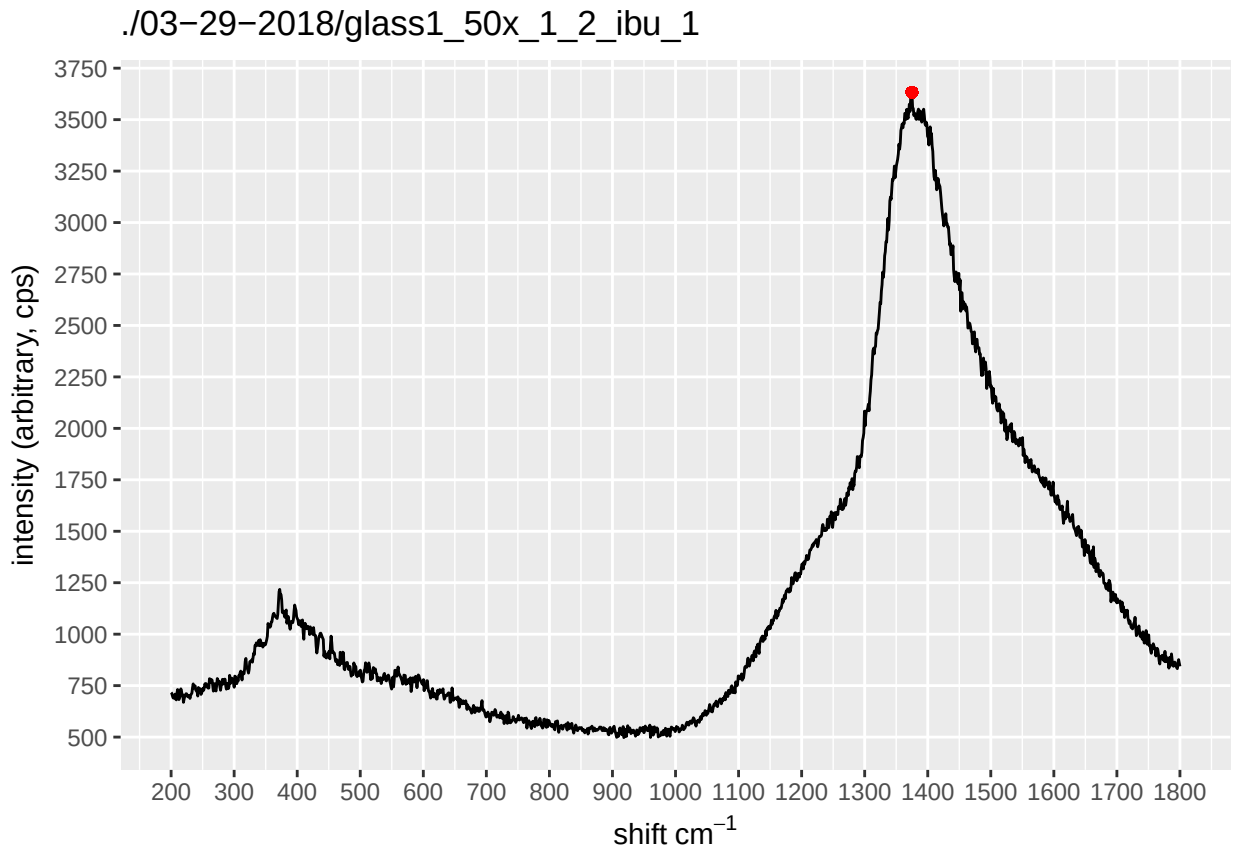
```
##
## $plot
```


./03−29−2018/glass1_20x_1_2_ibu_1
intensity (arbitrary, cps)
shift cm−1
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800

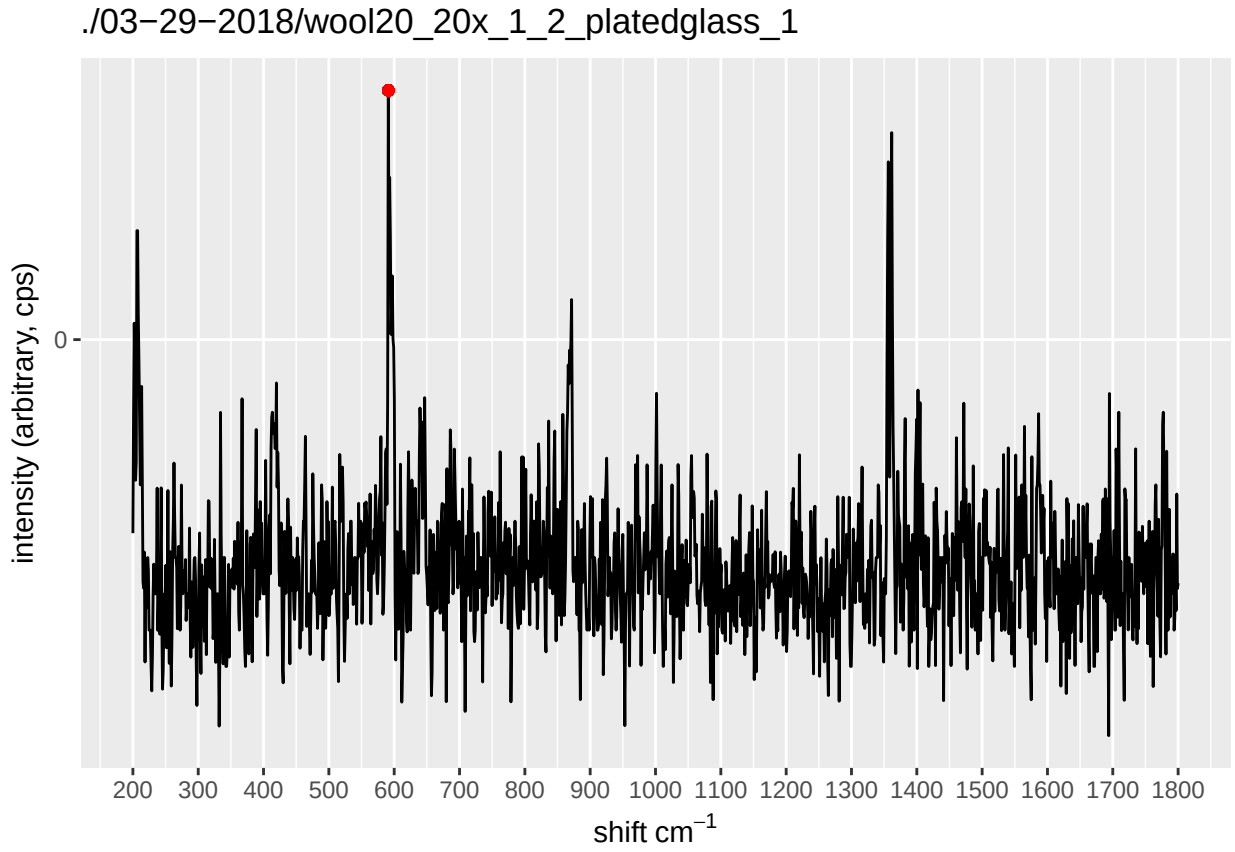
```
##
## $plot
```


./03−29−2018/glass1_20x_ibu_1
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

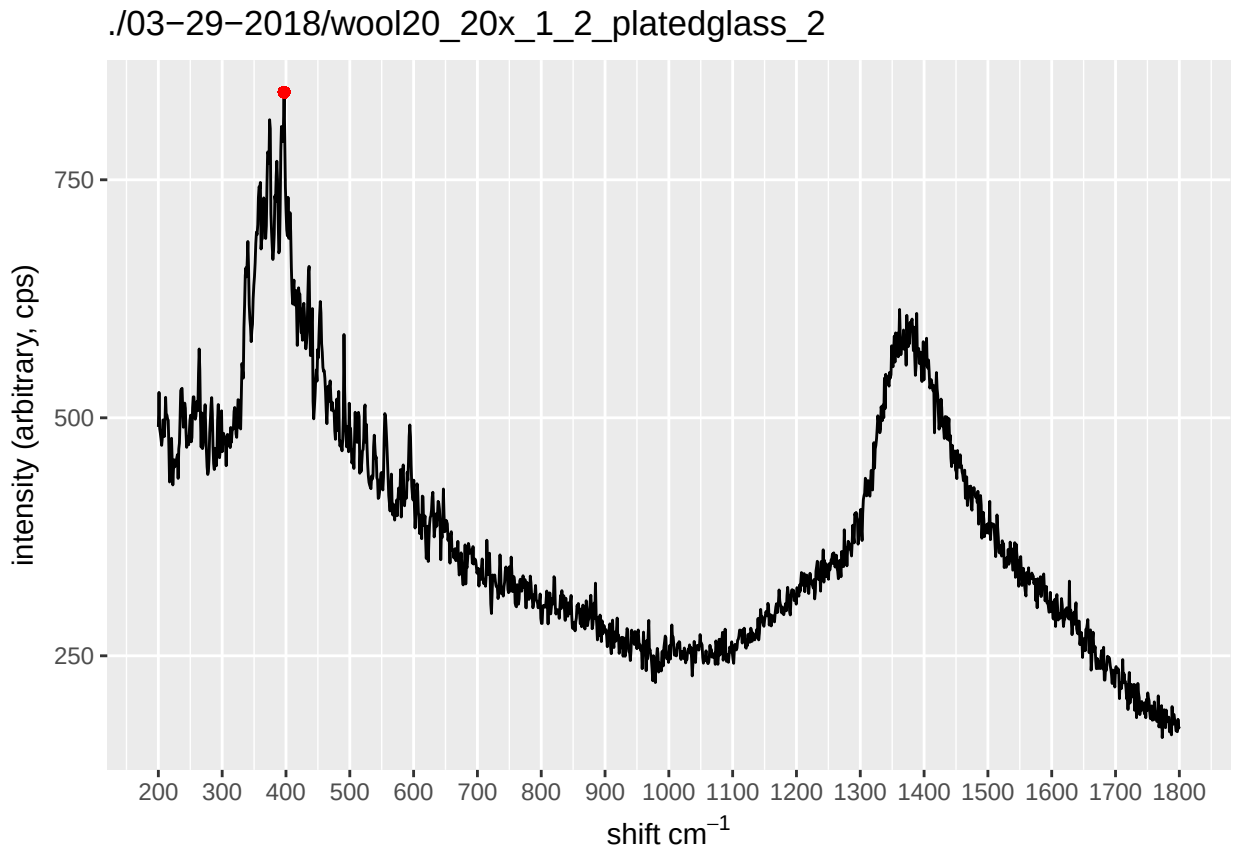
```
##
## $plot
```


./03−29−2018/glass1_50x_1_2_ibu_1
intensity (arbitrary, cps)
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

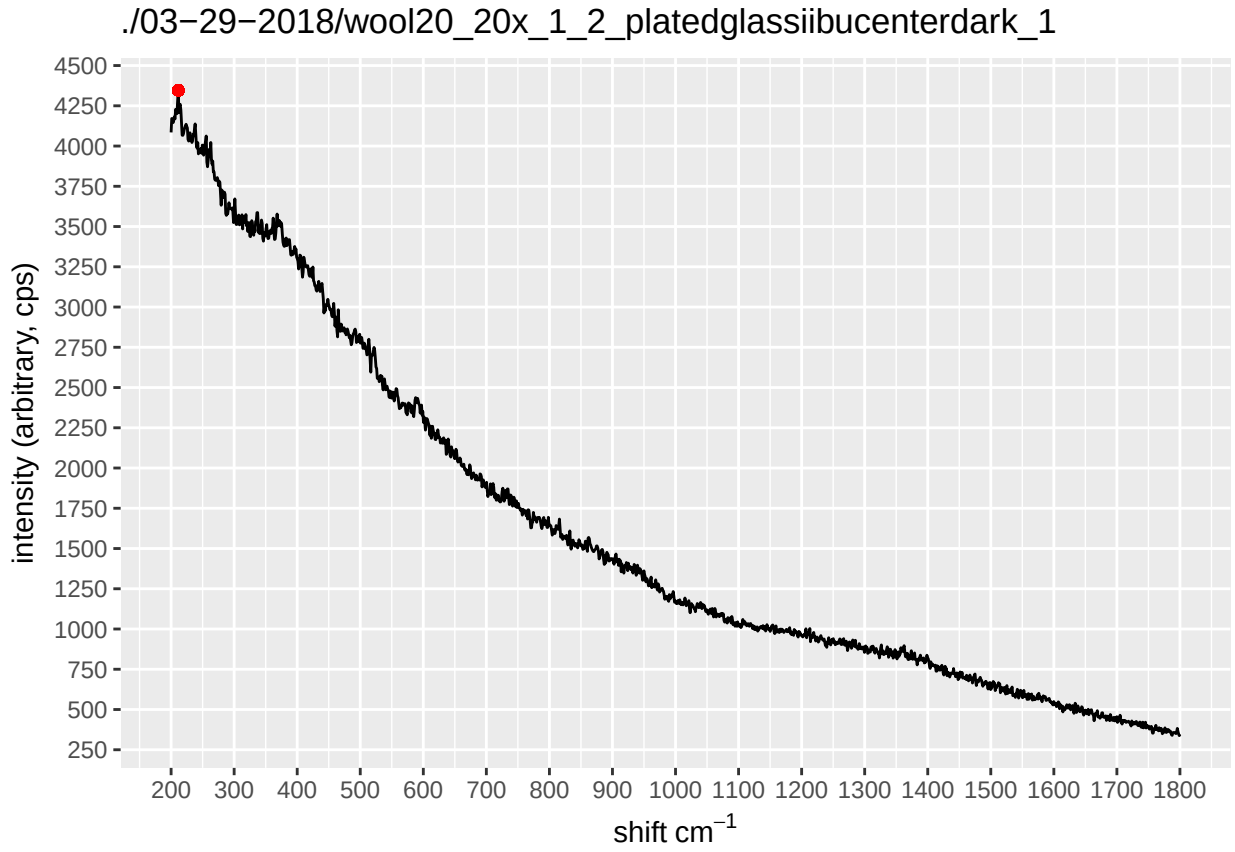
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_1
intensity (arbitrary, cps)
0
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

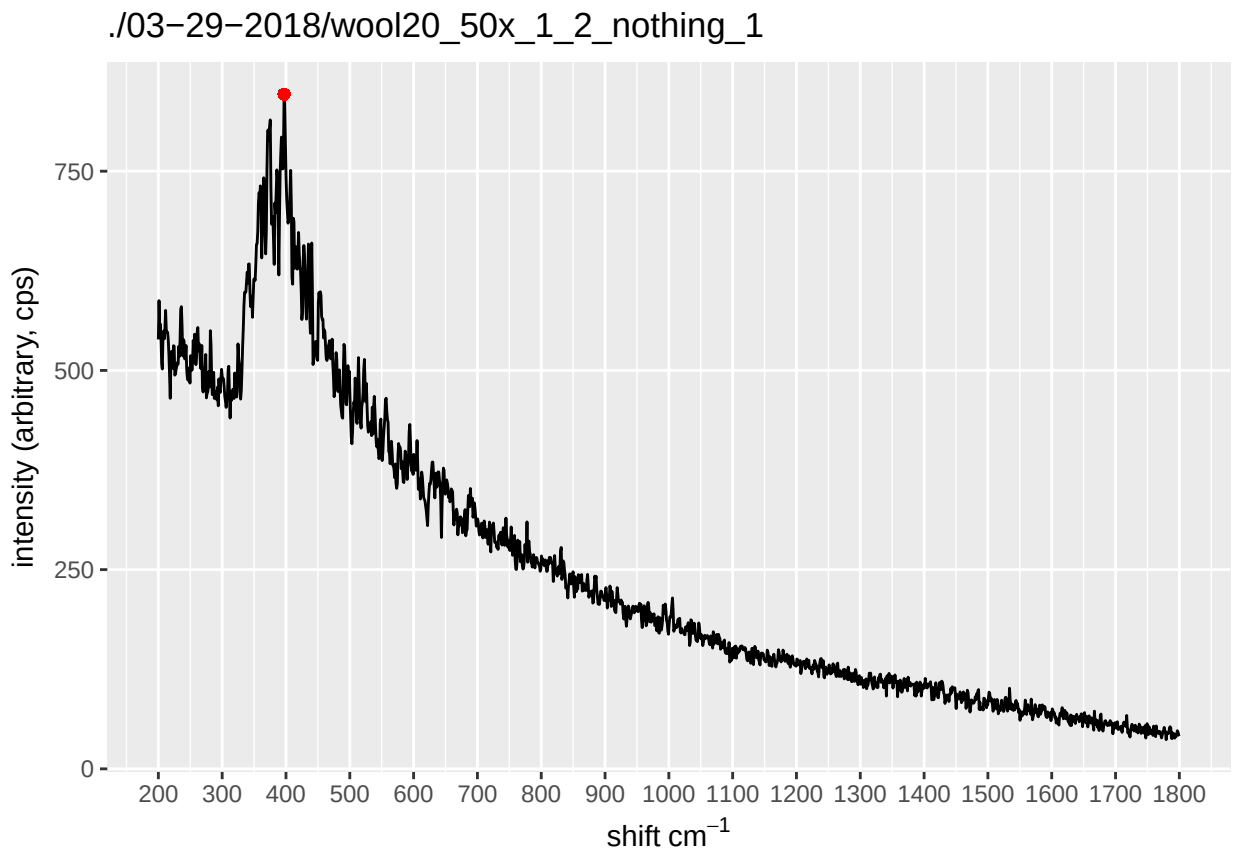
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglass_2
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

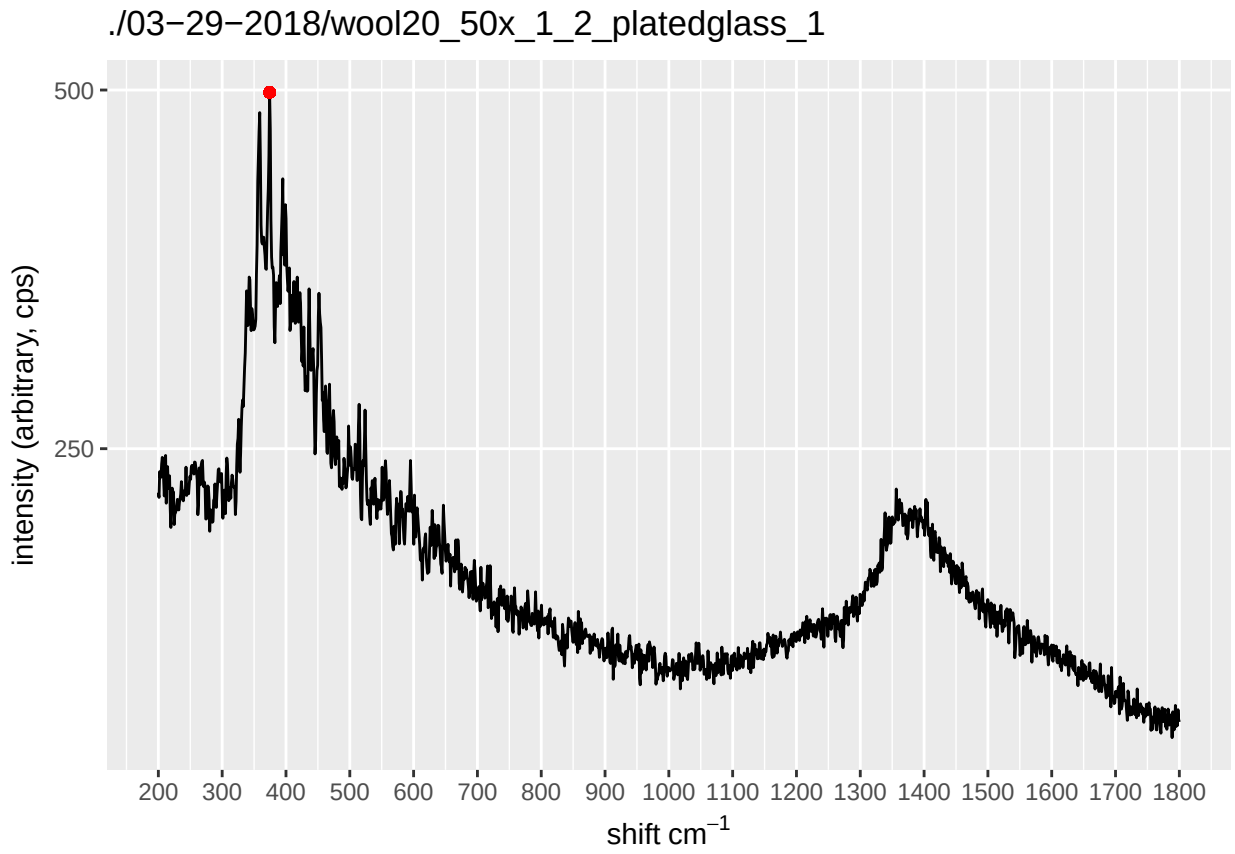
```
##
## $plot
```


./03−29−2018/wool20_20x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

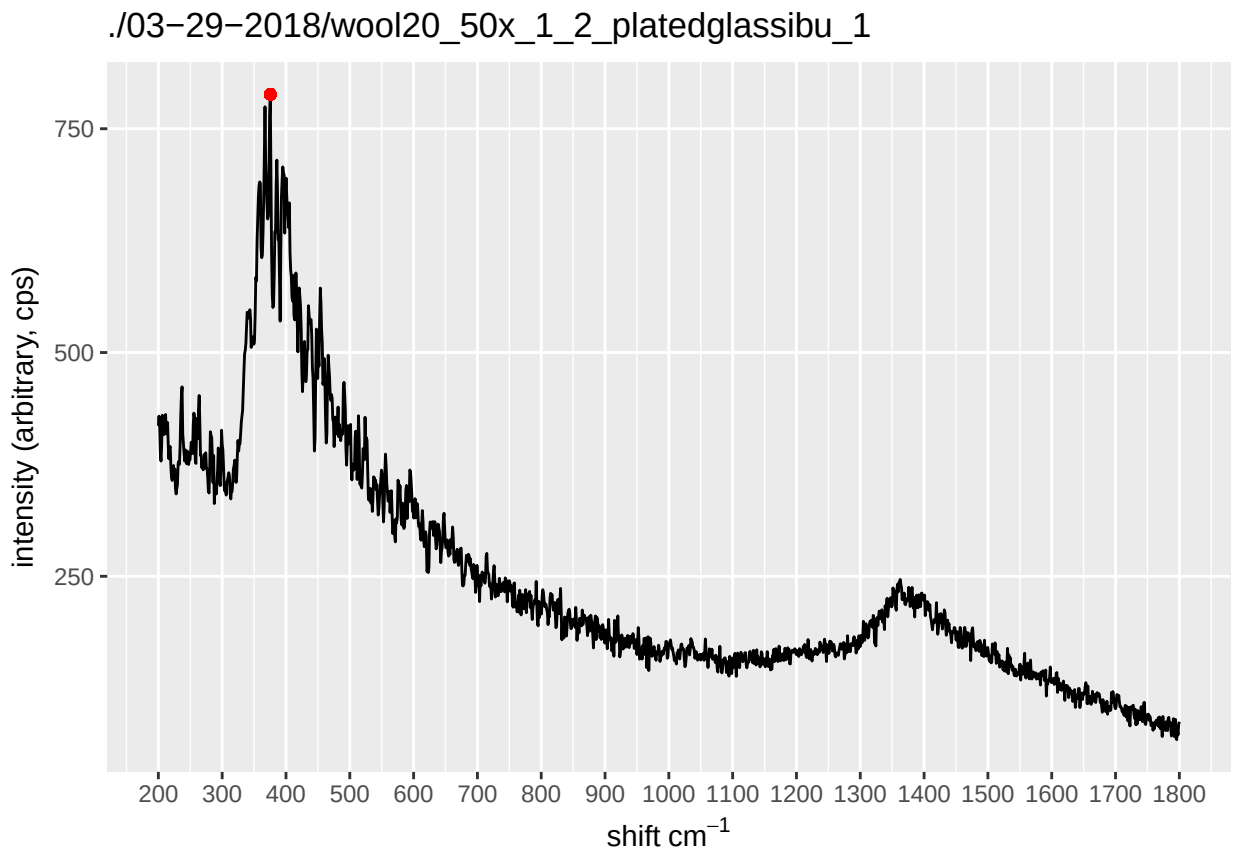
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_nothing_1
intensity (arbitrary, cps)
0
250
500
750
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

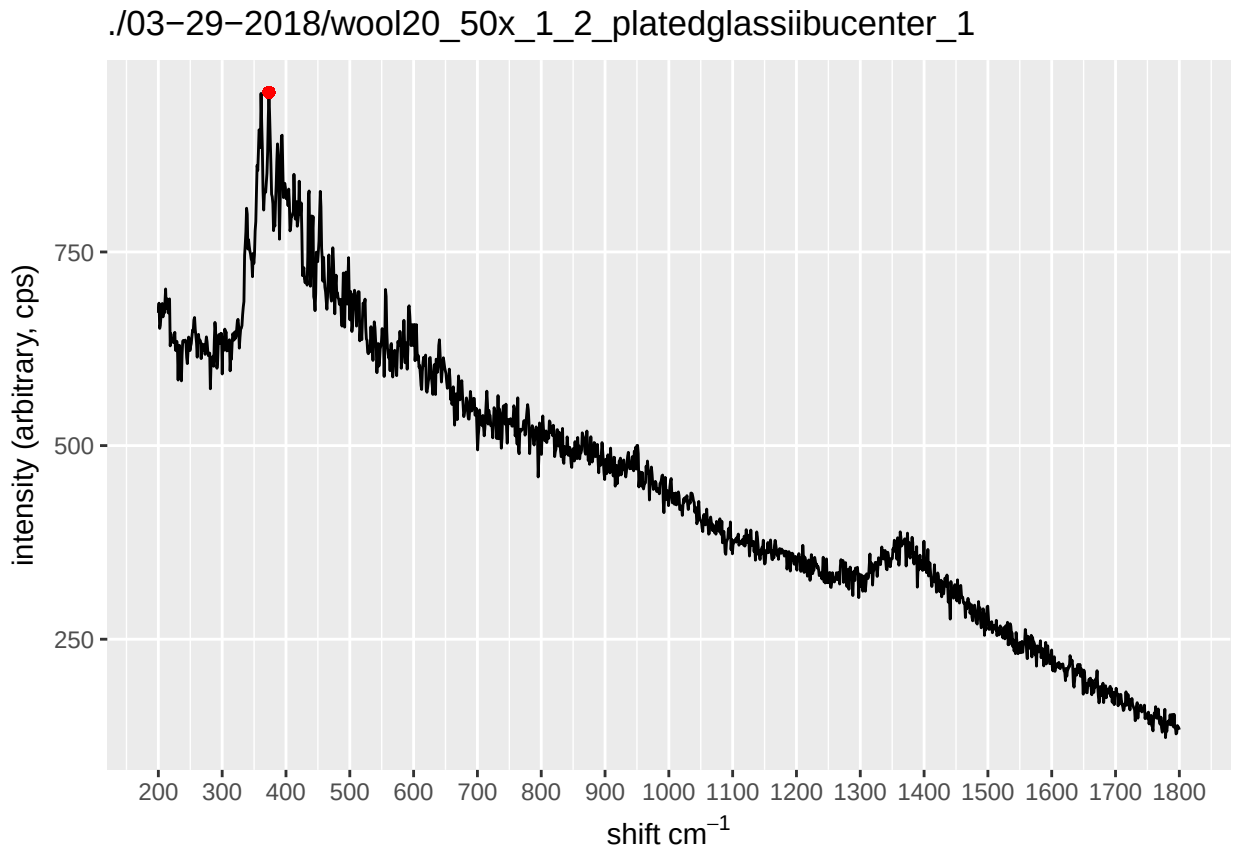
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglass_1
500
250
intensity (arbitrary, cps)
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

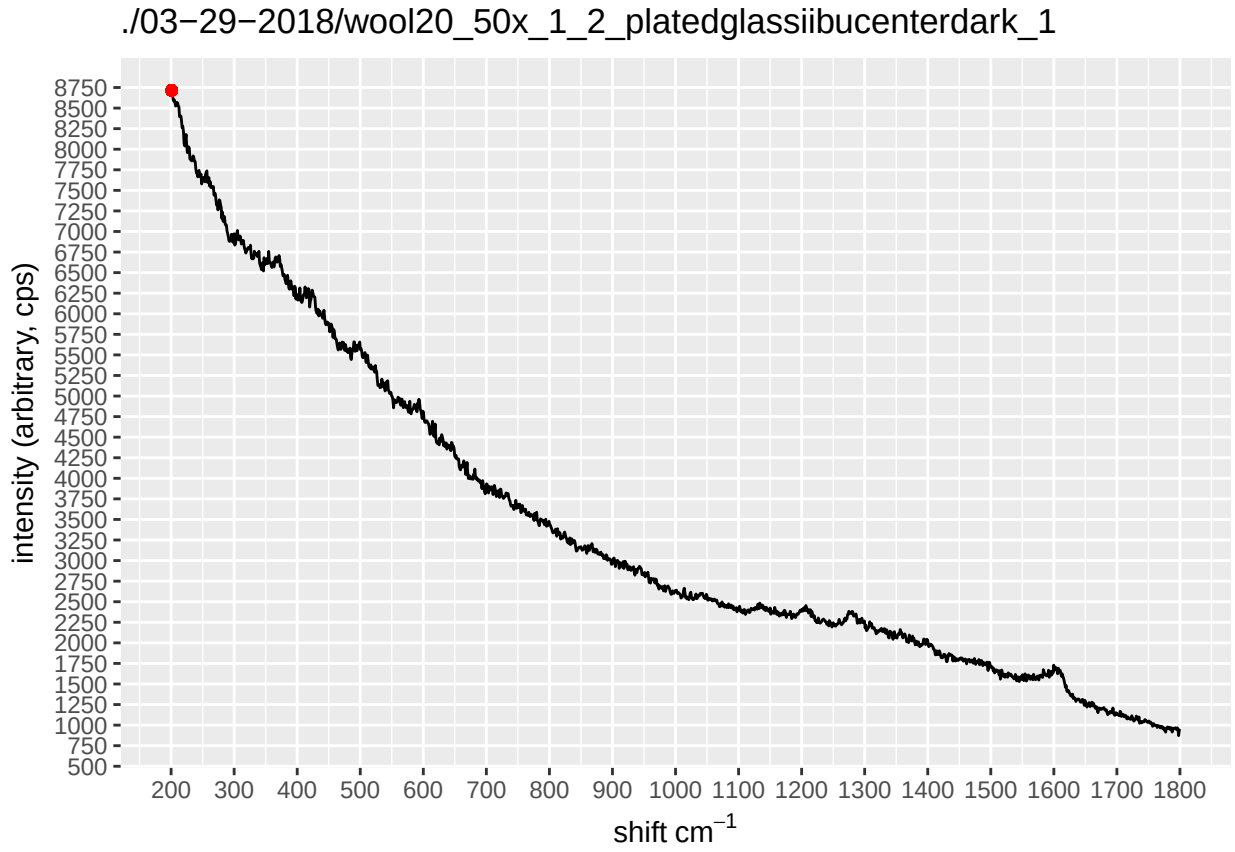
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassibu_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

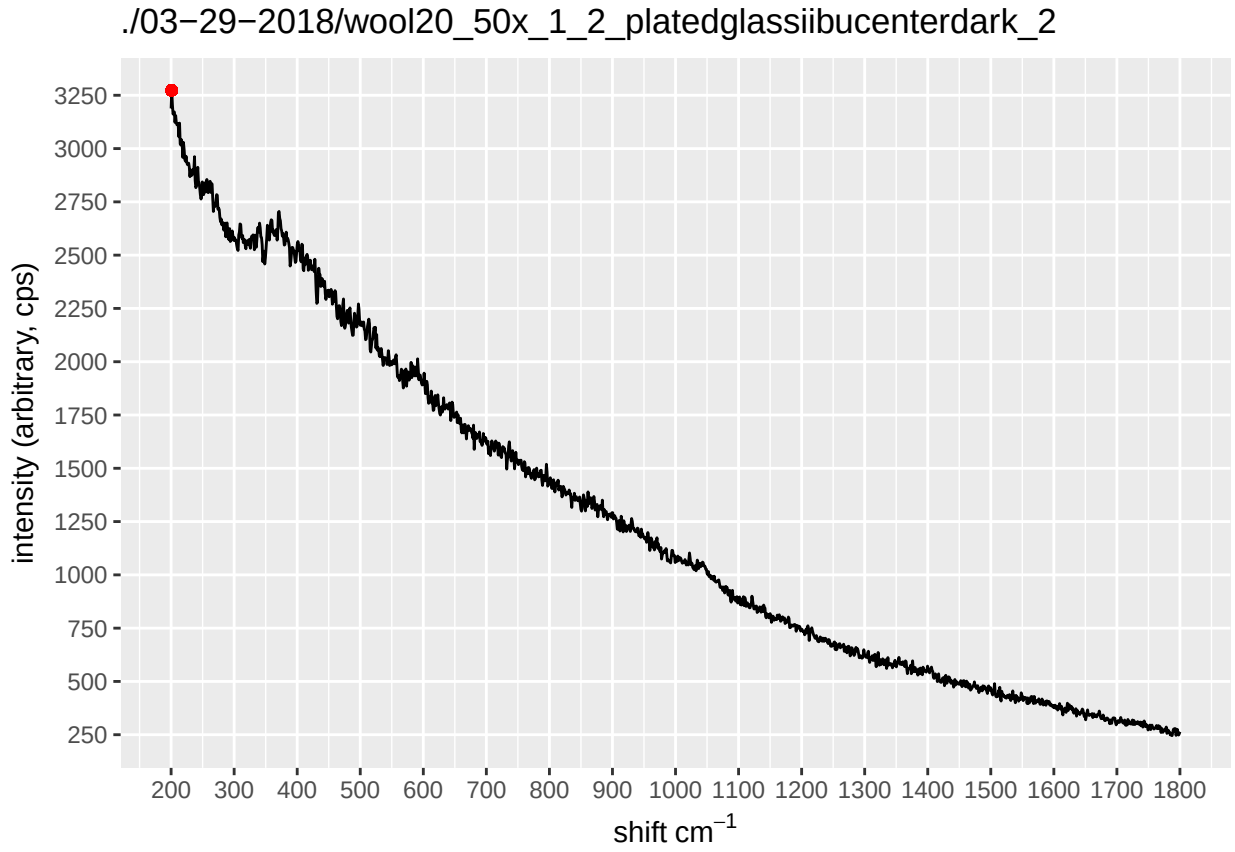
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenter_1
intensity (arbitrary, cps)
750
500
250
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

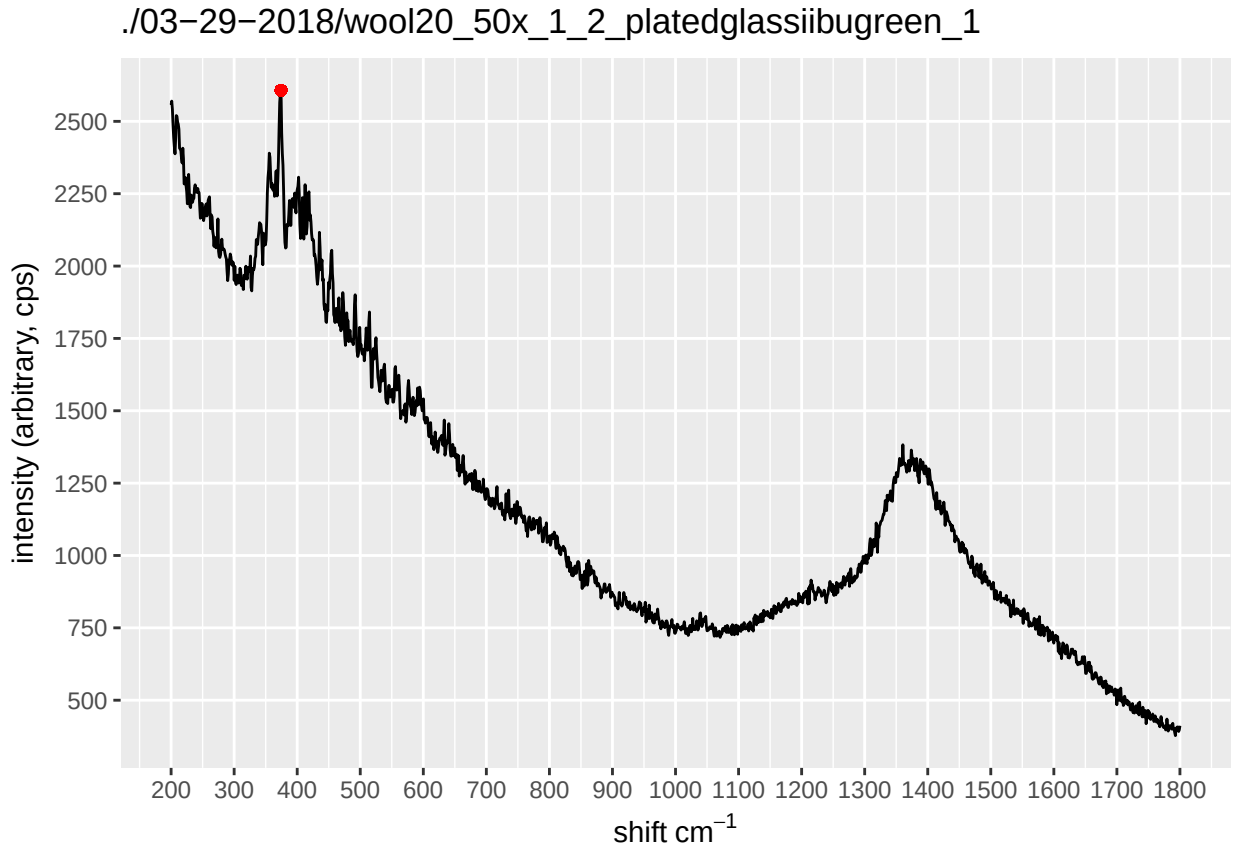
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_1
intensity (arbitrary, cps)
8750
8500
8250
8000
7750
7500
7250
7000
6750
6500
6250
6000
5750
5500
5250
5000
4750
4500
4250
4000
3750
3500
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

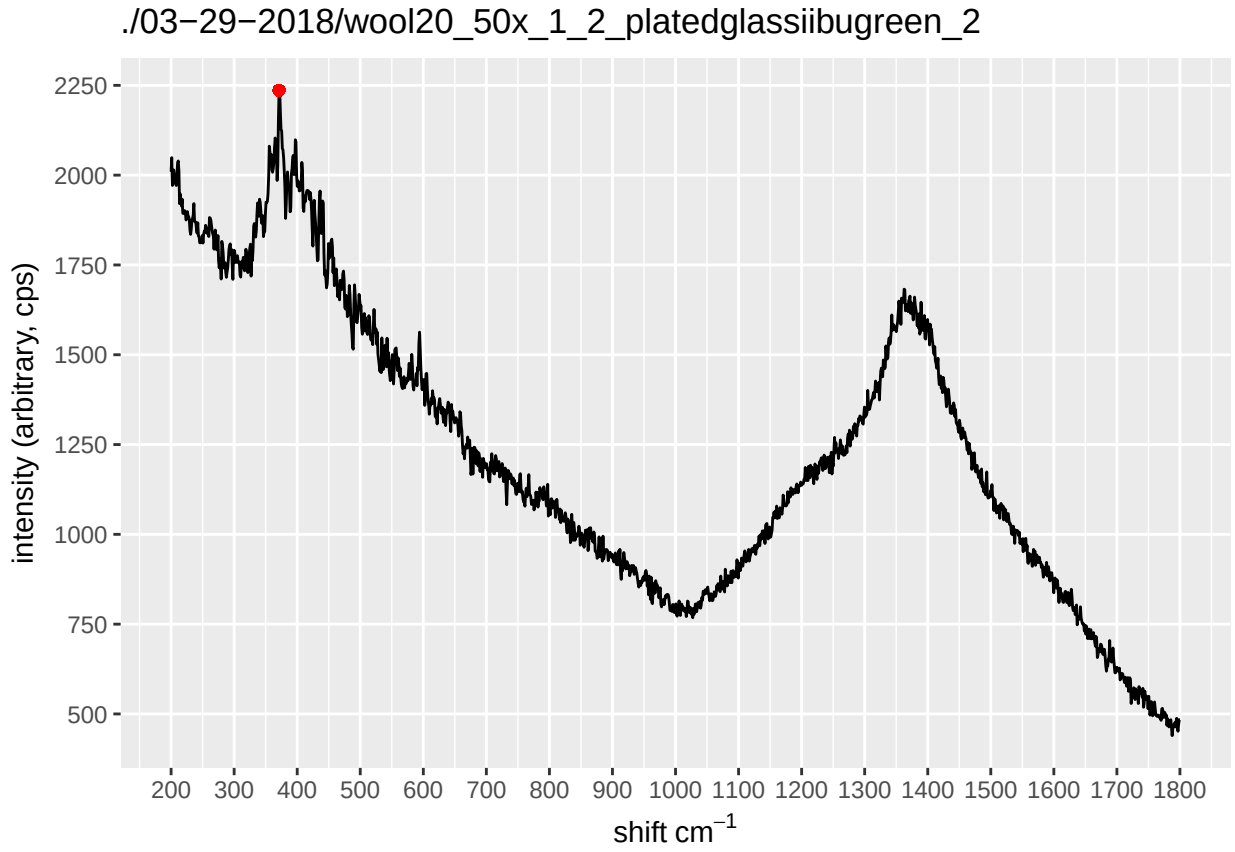
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibucenterdark_2
intensity (arbitrary, cps)
3250
3000
2750
2500
2250
2000
1750
1500
1250
1000
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1

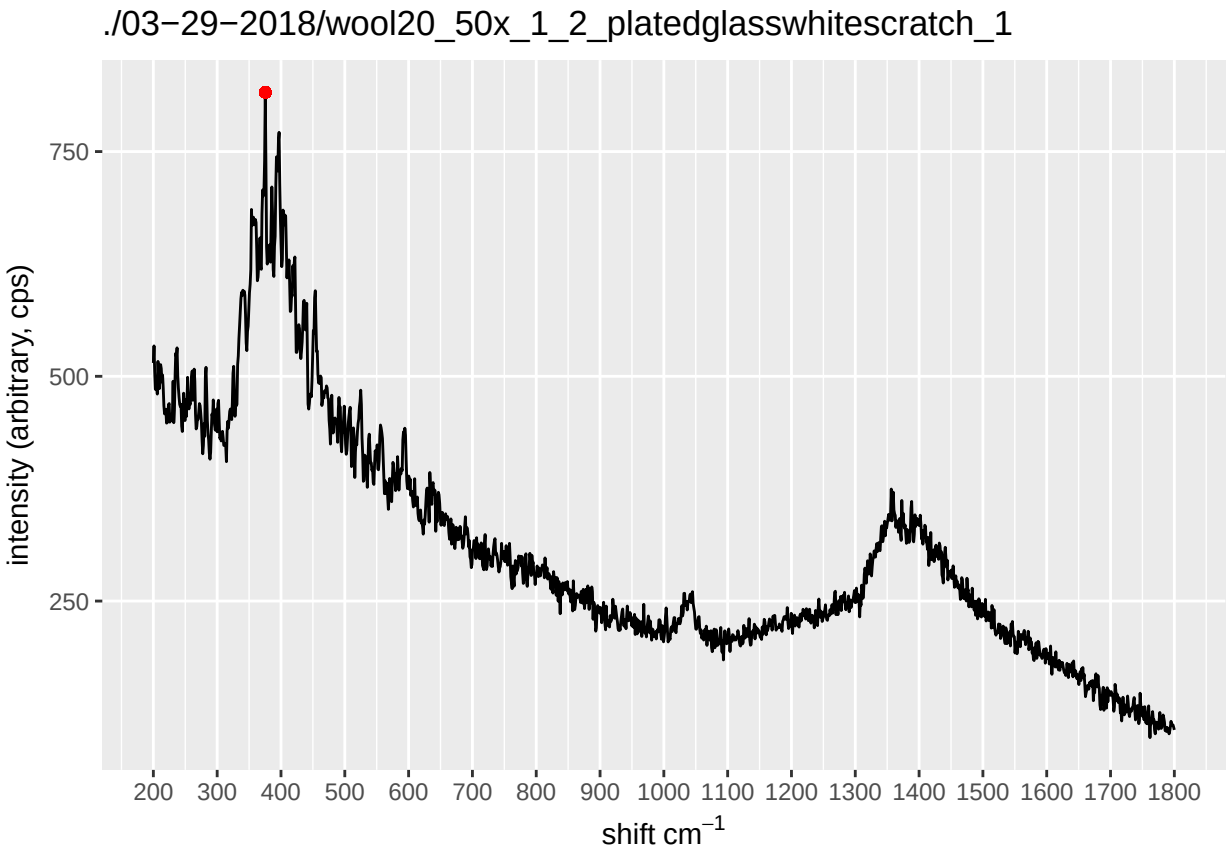
```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_1
intensity (arbitrary, cps)
2500
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglassiibugreen_2
intensity (arbitrary, cps)
2250
2000
1750
1500
1250
1000
750
500
200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800
shift cm−1

```
##
## $plot
```


./03−29−2018/wool20_50x_1_2_platedglasswhitescratch_1
intensity (arbitrary, cps)
750
500
250
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
shift cm−1