photobiologyFilters Version 0.1.5
Catalogue of filters

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1 Introduction

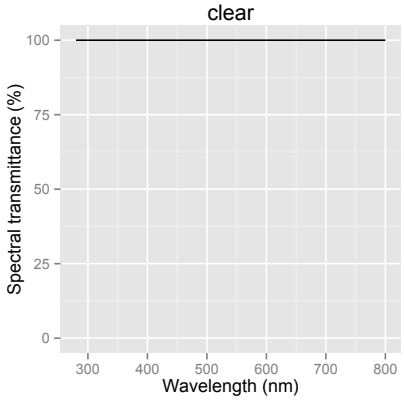
```
library(ggplot2)
library(photobiologyFilters)

## Loading required package:  photobiology
```

```
filter.plotter <- function(filter_name, w.low = 280, w.high = 800, ylab = "Spectral transmittance (%)") {
    spectrum.data <- data.frame(w.length = seq(280, 800, length.out = 300))
    spectrum.data$transmittance <- calc_filter_multipliers(spectrum.data$w.length,
        filter_name, pc = TRUE)
    fig_linear <- ggplot(aes(x = w.length, y = transmittance), data = spectrum.data) +
        labs(x = "Wavelength (nm)", y = ylab, title = filter_name) + ylim(0,
        100) + geom_line()
    # fig_log <- fig_linear + scale_y_log10(limits=c(1e-5,30))
    print(fig_linear)
    # print(fig_log)
}
```

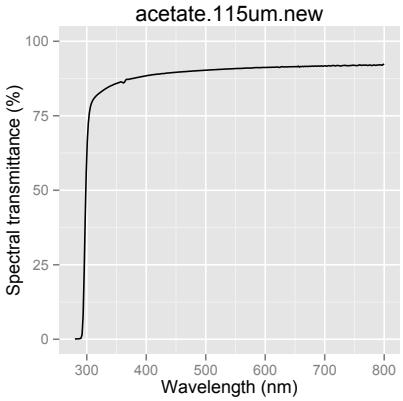
2 Clear filter

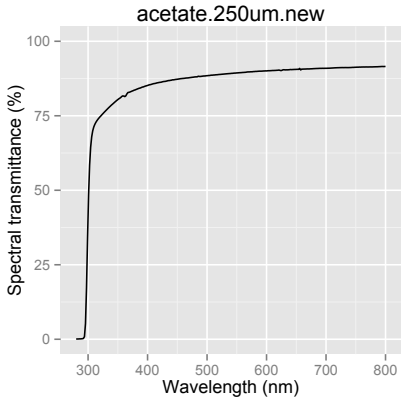
```
filter.plotter("clear")
```

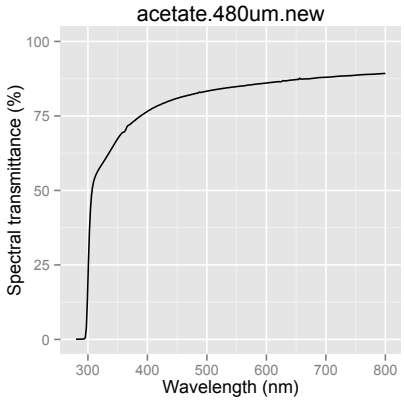


3 Cellulose diacetate

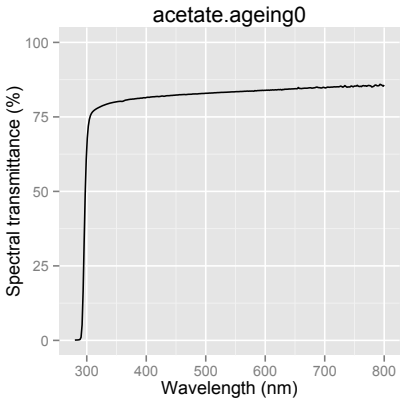
```
for (filter in c("acetate.115um.new", "acetate.250um.new", "acetate.480um.new")) {
    filter.plotter(filter)
}
```

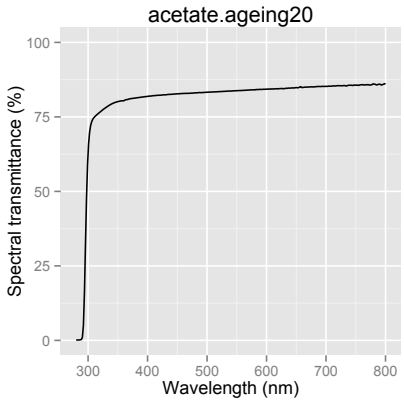


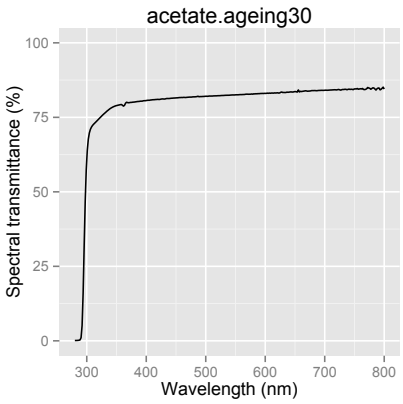


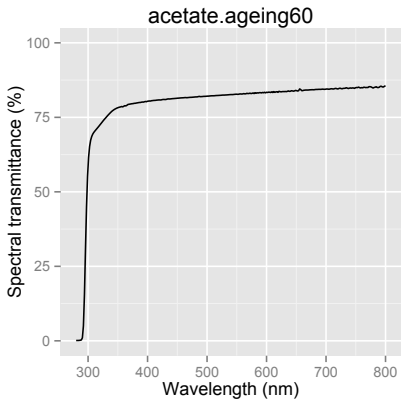


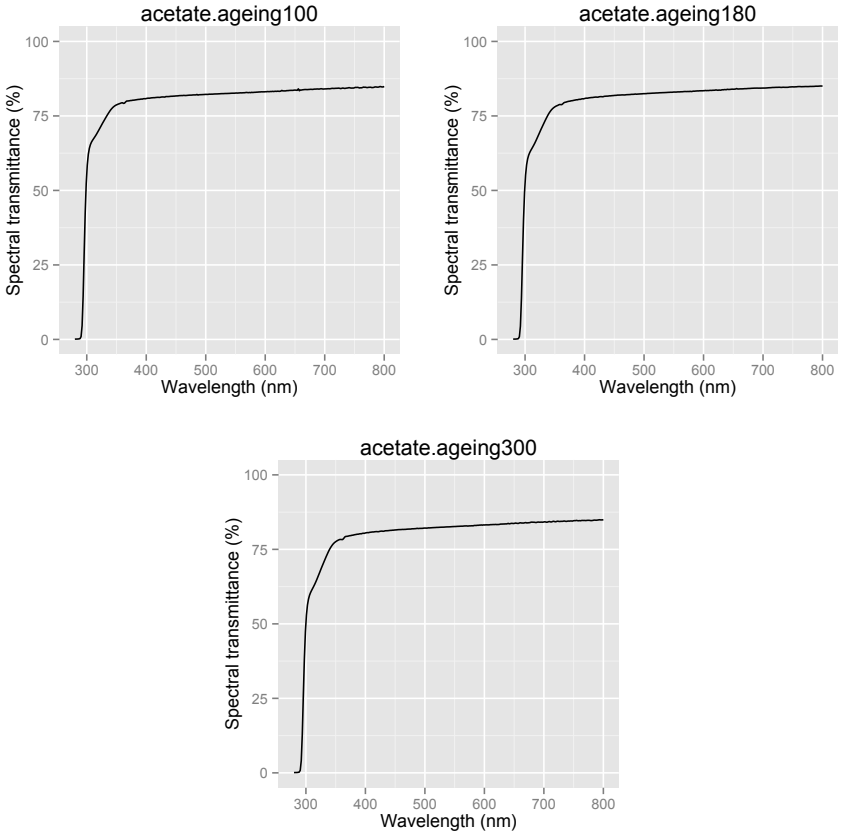

```
for (filter in c("acetate.ageing0", "acetate.ageing20", "acetate.ageing30",
    "acetate.ageing60", "acetate.ageing100", "acetate.ageing180", "acetate.ageing300")) {
    filter.plotter(filter)
}
```





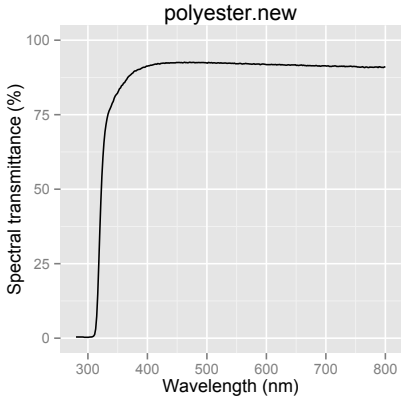





acetate.ageing100
Spectral transmittance (%)
100
75
50
25
0
300
400
500
600
700
800
Wavelength (nm)
acetate.ageing180
Spectral transmittance (%)
100
75
50
25
0
300
400
500
600
700
800
Wavelength (nm)
acetate.ageing300
Spectral transmittance (%)
100
75
50
25
0
300
400
500
600
700
800
Wavelength (nm)

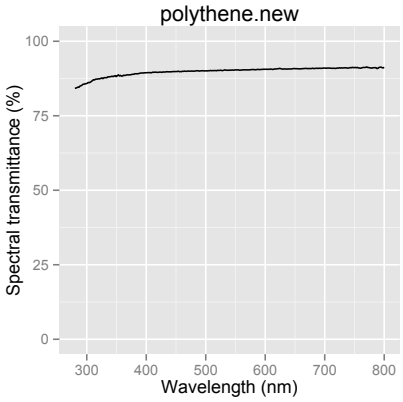
4 Polyester

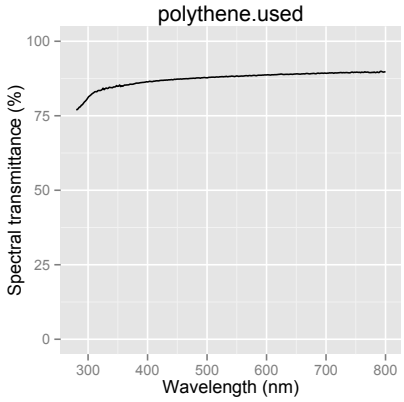
```
filter.plotter("polyester.new")
```



5 Polythene

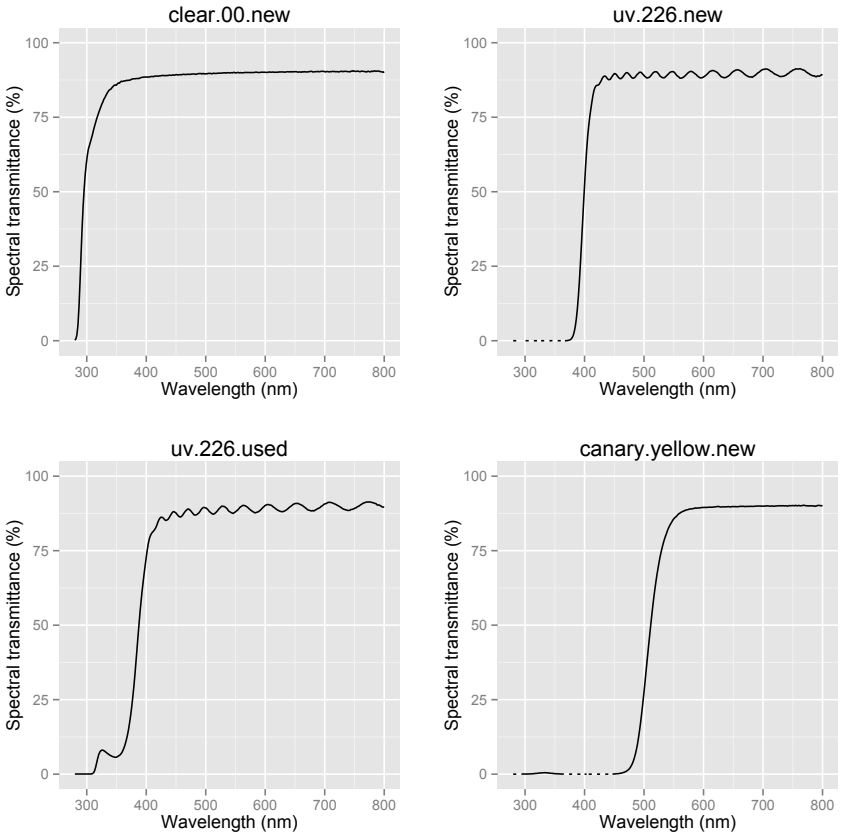
```
filter.plotter("polythene.new")
filter.plotter("polythene.used")
```

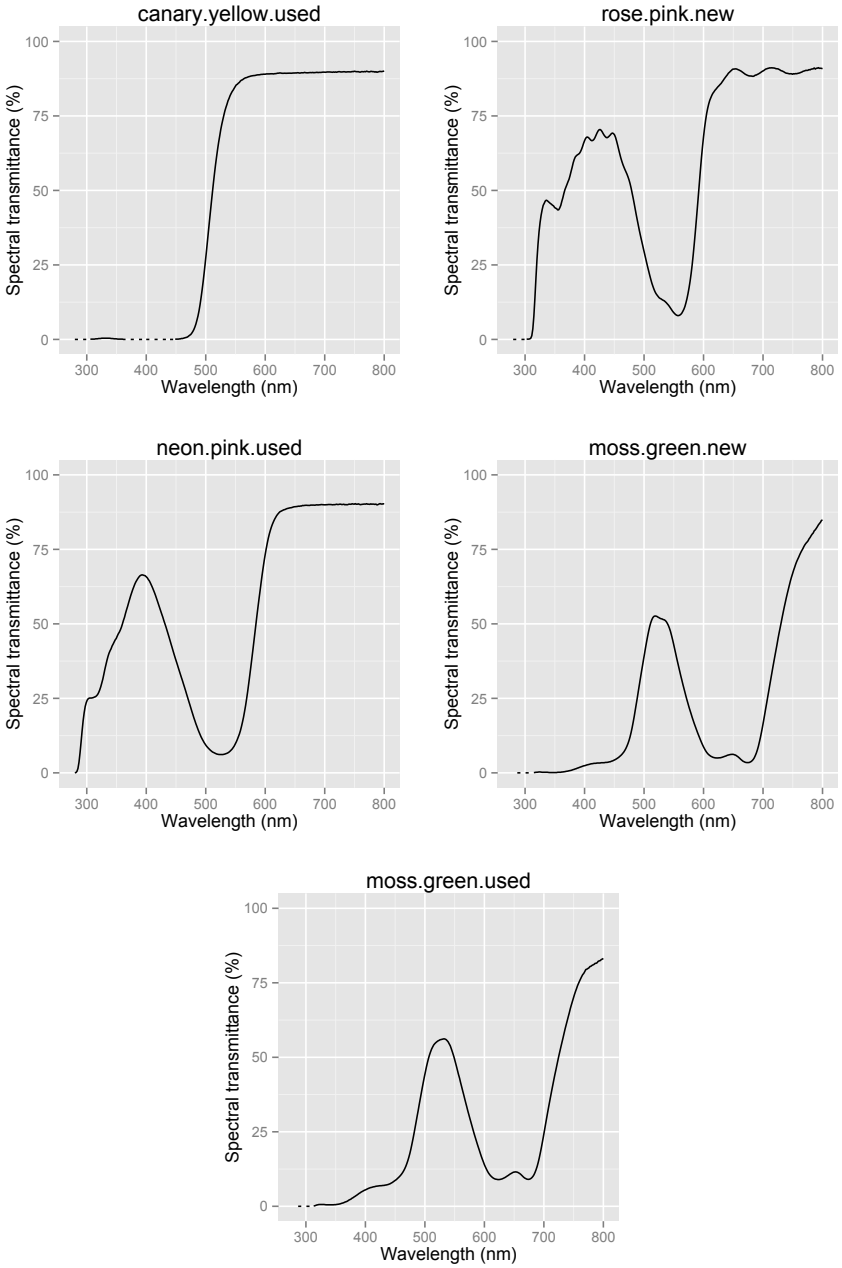




6 Rosco filters

```
for (filter in c("clear.00.new", "uv.226.new", "uv.226.used", "canary.yellow.new",
    "canary.yellow.used", "rose.pink.new", "neon.pink.used", "moss.green.new",
    "moss.green.used")) {
    filter.plotter(filter)
}
```




canary.yellow.used
rose.pink.new
neon.pink.used
moss.green.new
moss.green.used
Spectral transmittance (%)
Wavelength (nm)
0
25
50
75
100
300
400
500
600
700
800

7 BPI AGri Visqueen

```
for (filter in c("solatrol.new", "luminance.new")) {
    filter.plotter(filter)
}
```