Color Engineering

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Vocabulary

rod cell — pręcik

cone cell — czopek, słupek

spectral color — widmo optyczne

additive mixing — synteza addytywna

subtractive mixing — synteza subtraktywna

color mode — tryb kolorów (przestrzeń kolorów)

Light

radio waves microwaves infrared waves **visible light** ultraviolet x-rays gamma rays

380 – 720 nm

color spectrum

Color models

Additive mixing

Subtractive mixing

Additive color

Subtractive color

Color modes

Hue	Red	Cyan	Lightness
Saturation	Green	Magenta	a (green/magenta)
Brightness	Blue	Yellow	b (yellow/blue)
		Key color	

Color modes

Hue

Saturation

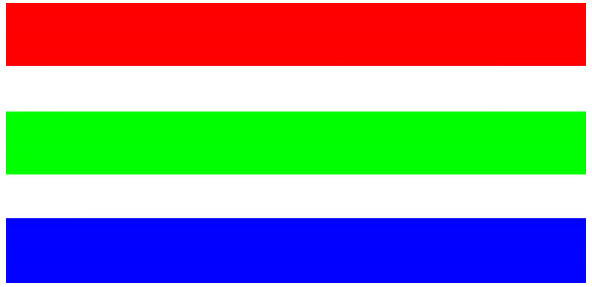
Brightness

Color modes

Red

Green

Blue



Hex code #oooooo

Color modes

Cyan

Magenta

Yellow

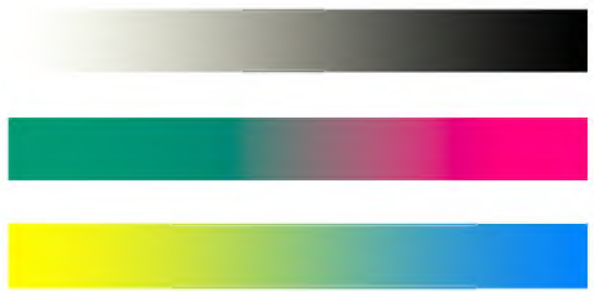
Key

Color modes

Lightness

a

b



Summary

There are only two color models:

– additive — emits light;

– subtractive — absorbs and reflects light.

They have their own primaries. And they are opposite to each other.

Color modes are used to describe color.

There are four basic color modes: HSV, RGB, CMYK and Lab.

Bibliography

https://en.wikipedia.org/wiki/Light (Date of Access: 25.01.2021)

https://en.wikipedia.org/wiki/Additive_color (Date of Access: 25.01.2021)

https://en.wikipedia.org/wiki/Subtractive_color (Date of Access: 25.01.2021)

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