



Infrared, extended reality



Infrared colorants as twins for security
printing of documents and securities

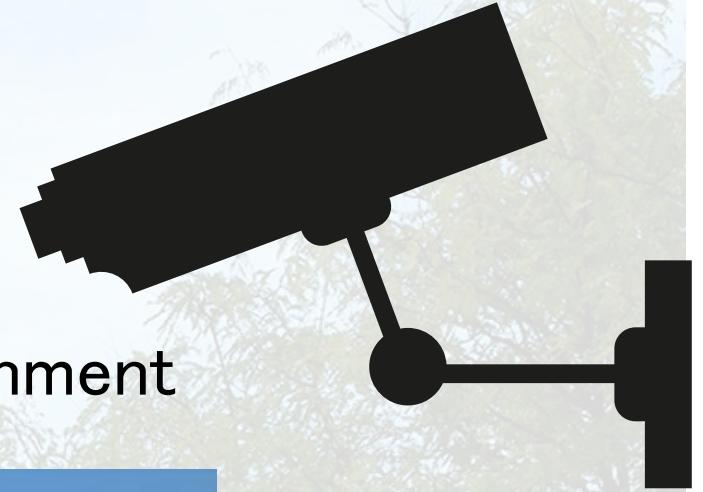


international
circle
of educational institutes for
graphic arts; technology and
management



Introduction

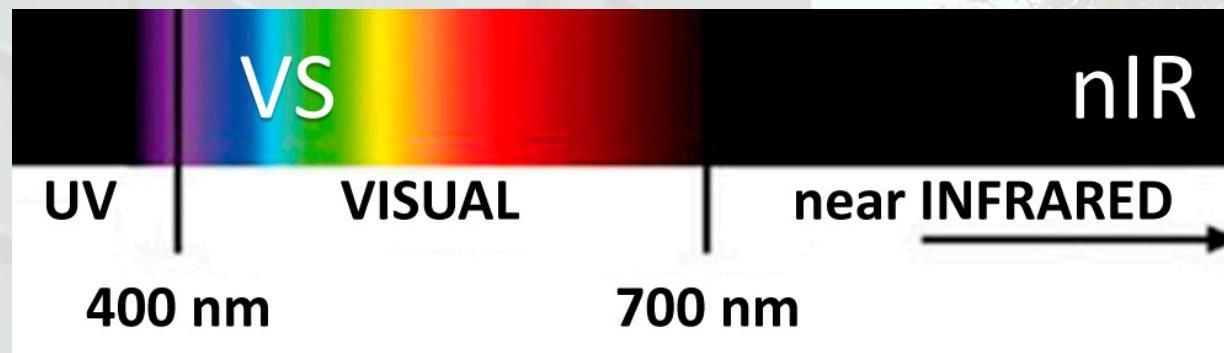
- Surveillance cameras in our environment



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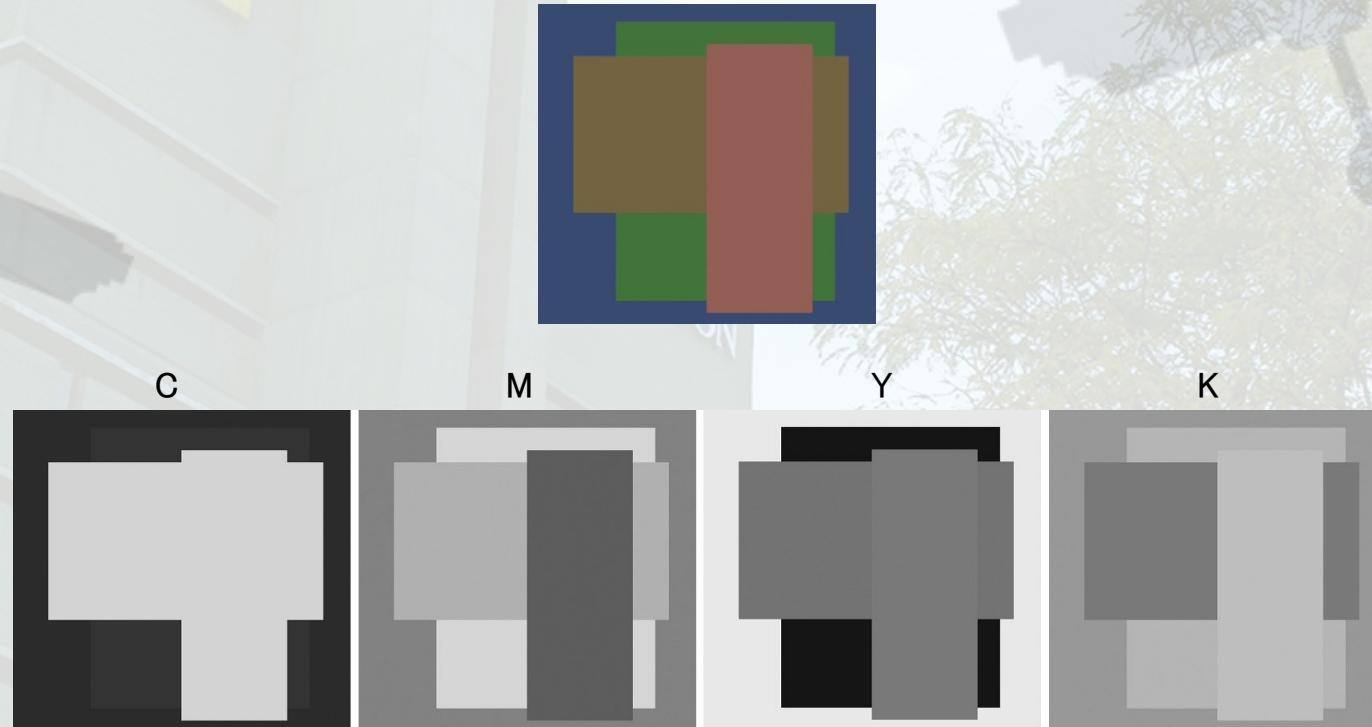
- Infrared, extended reality



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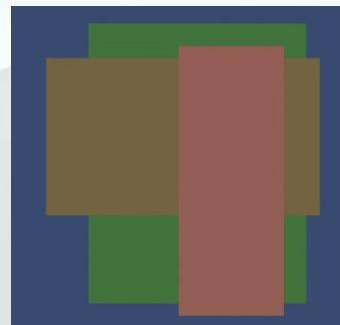
Difference between the GCR and the CMYKIR method



Substitute CMY with K for GCR heavy, SWOP (coated)

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RGB + Z
Preparation for the CMYKIR separation that connects two graphics

C



M



Y



K

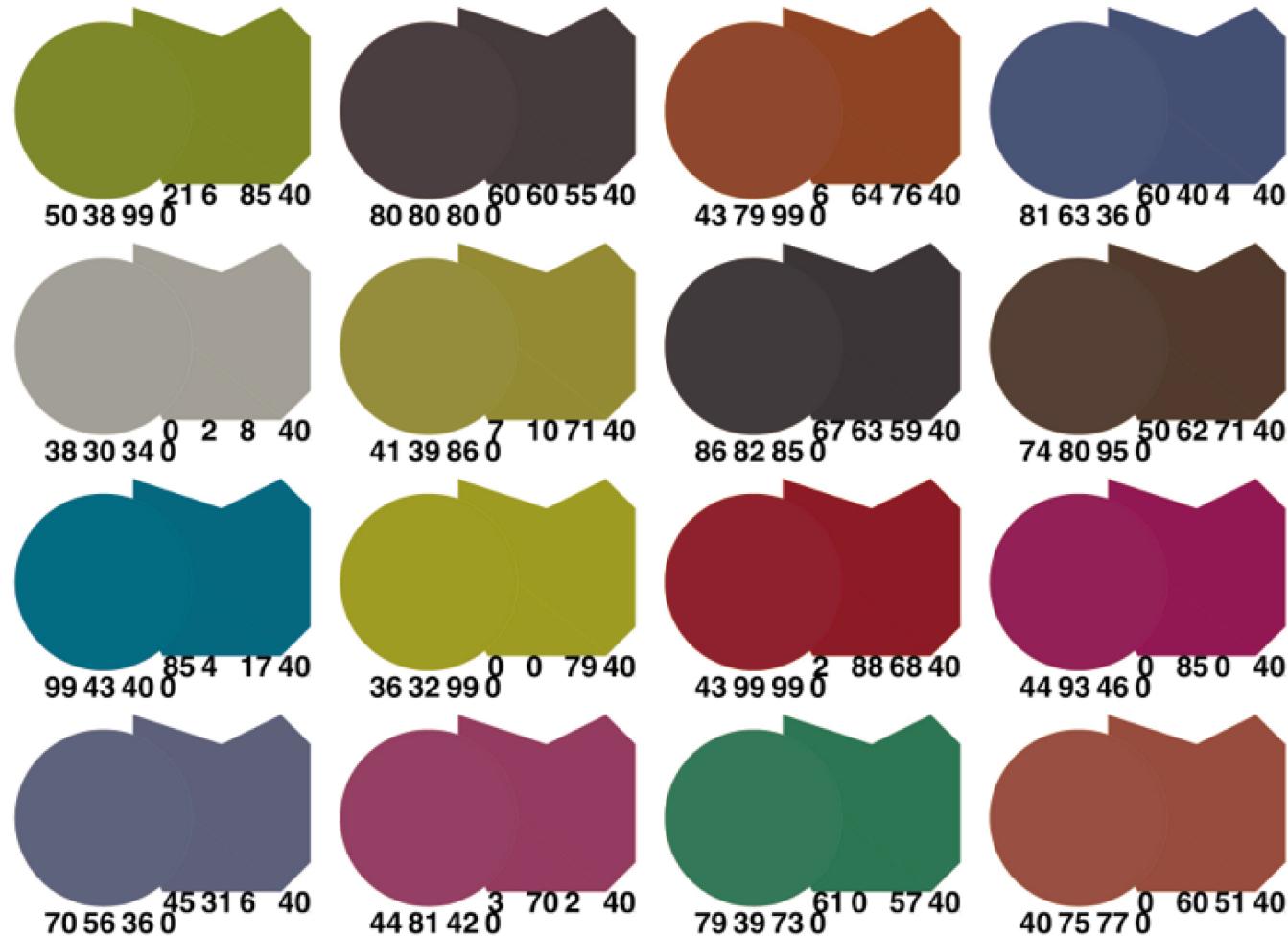


CMYKIR SEPARATION

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Colorant twins



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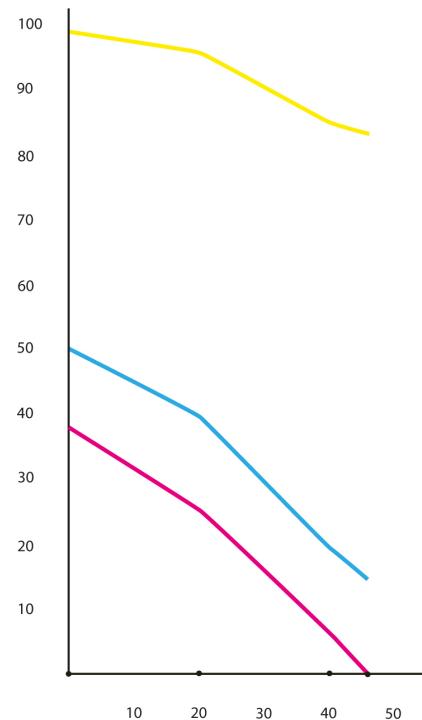


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R 137 G 141 B48
C 40 M 24 Y 96 K 20
C 16 M 0 Y 83 K 46 max

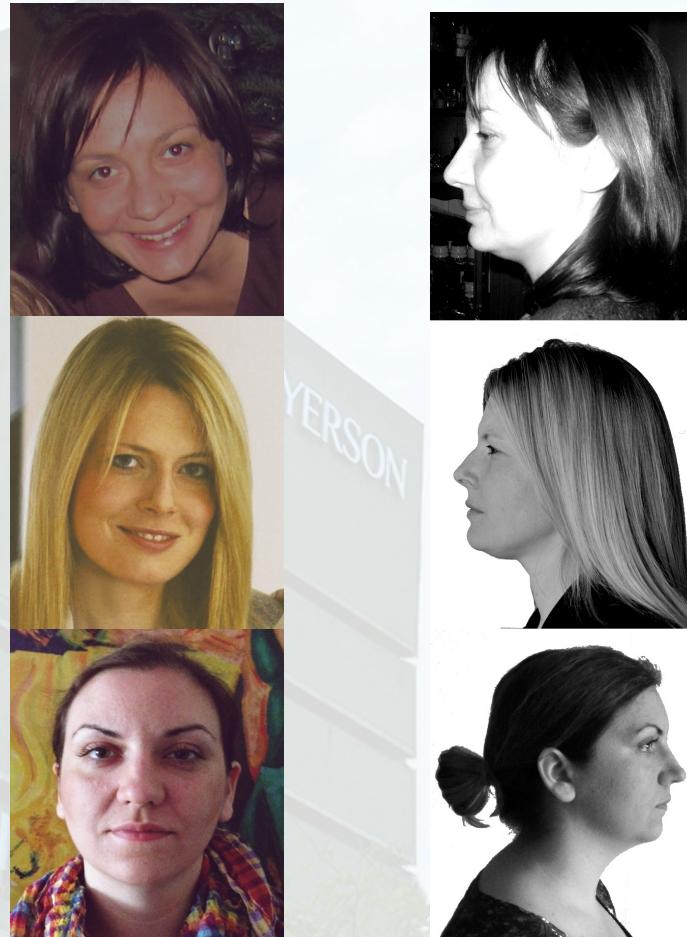
50 38 99 0 21 6 85 40



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Experiments with a double portrait



RGB portraits + Z profiles

Two input images for the CMYKIR separation



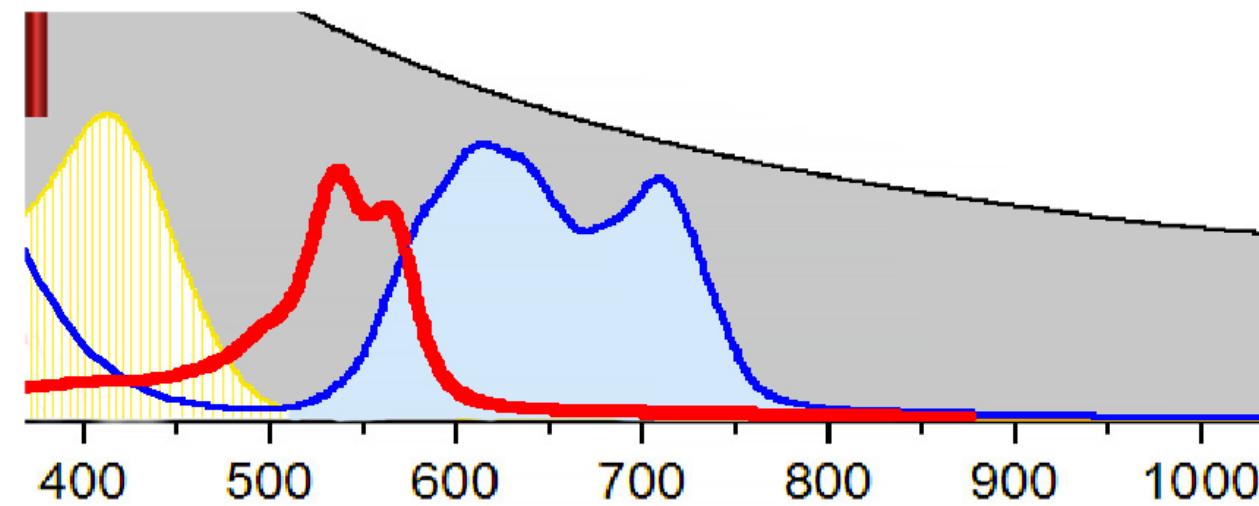
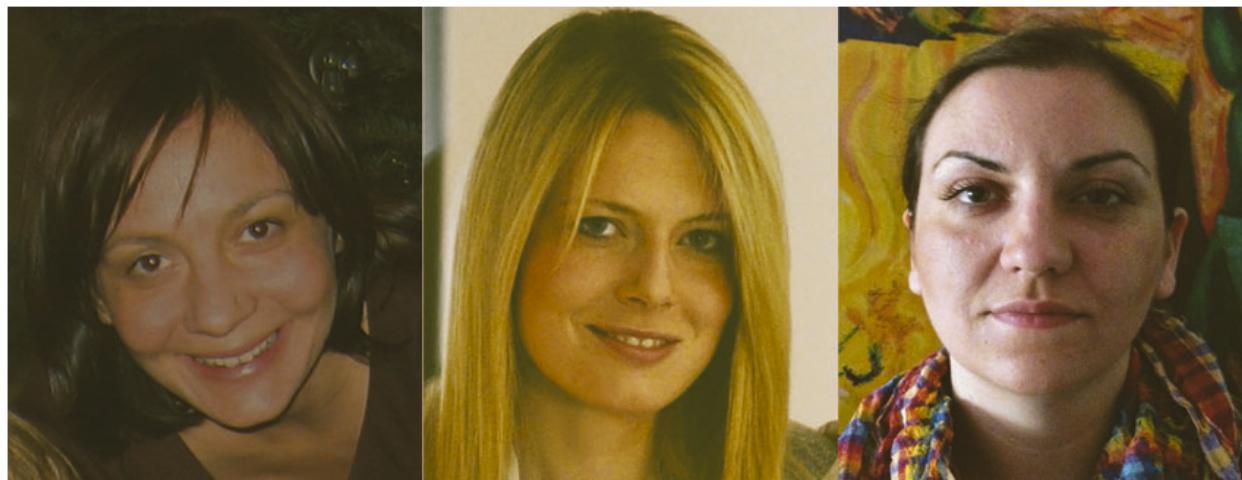
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C, M, Y, K channels for CMYKIR separation

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- Graphic reproduction for the new state of dual reality – for the visual and near infrared spectrum
- Introduction to precise manipulation of dyes for the purpose of mutual concealment of two images
- A recipe for making color “twins” that have the same visual experience but a different feature of absorbing IR light

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