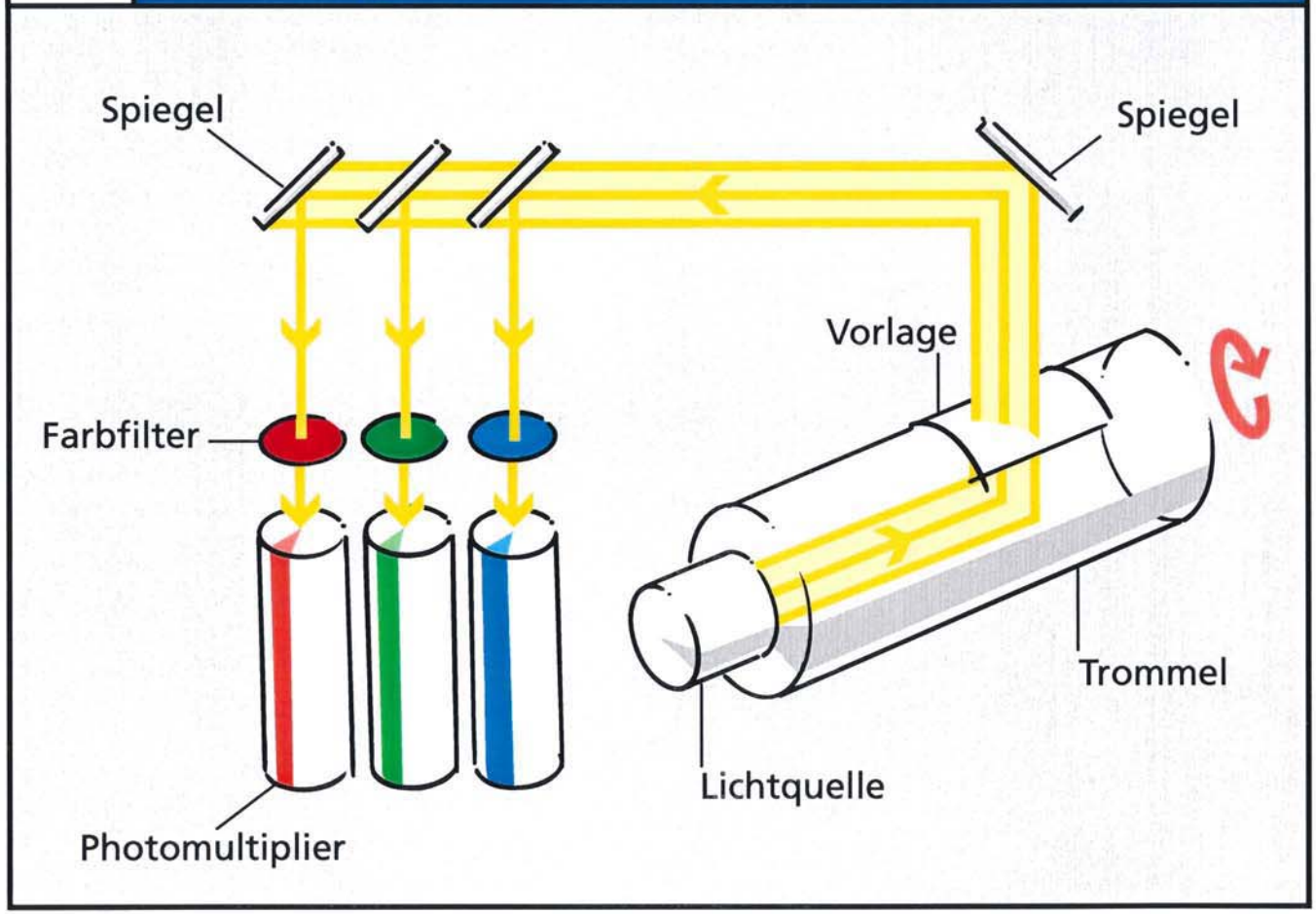
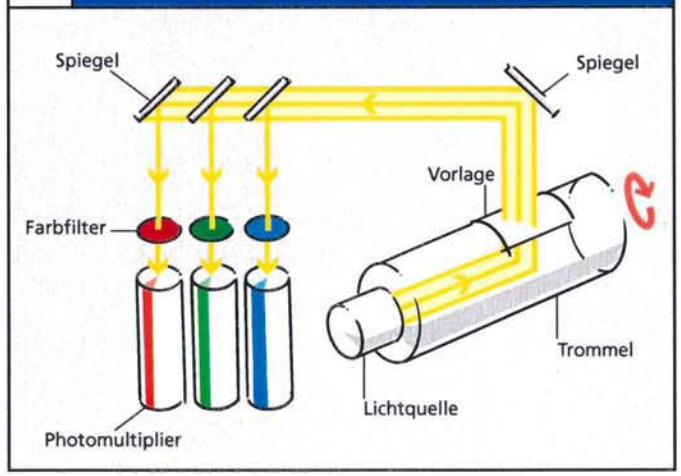
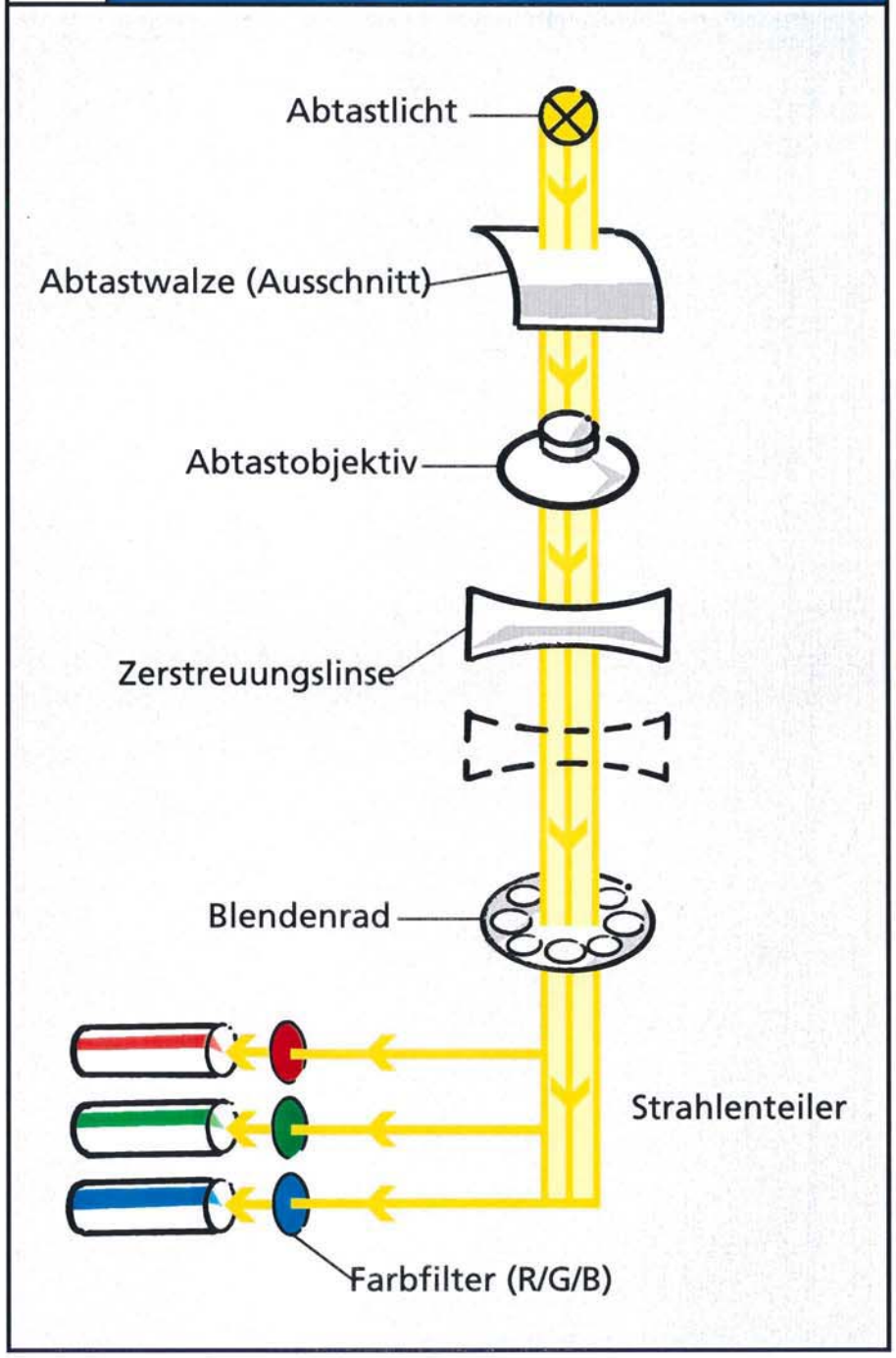
2.1 Signalverlauf in einem Trommelscanner



2.1 Signalverlauf in einem Trommelscanner



2.1 Abtastvorgang im Trommelscanner



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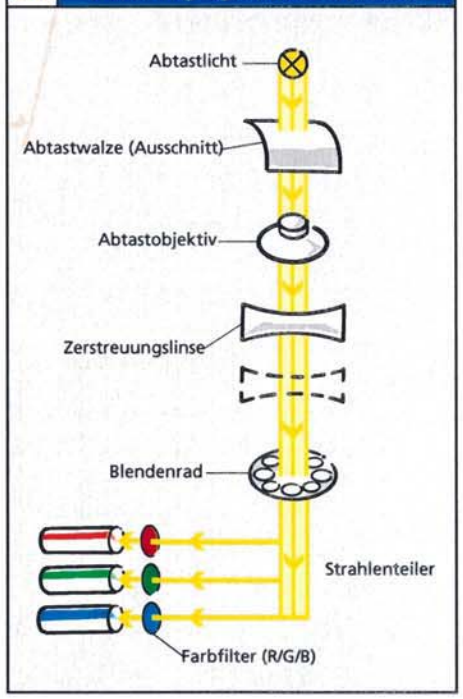
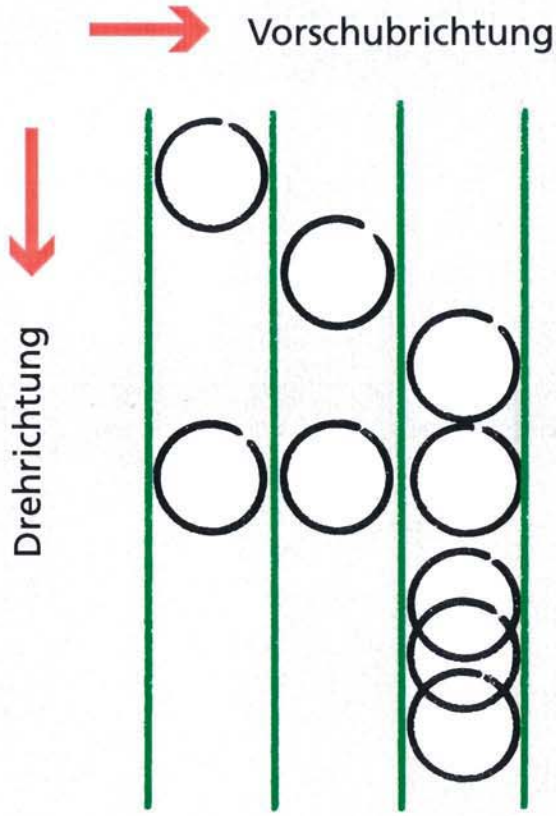
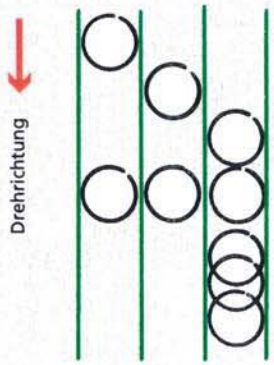


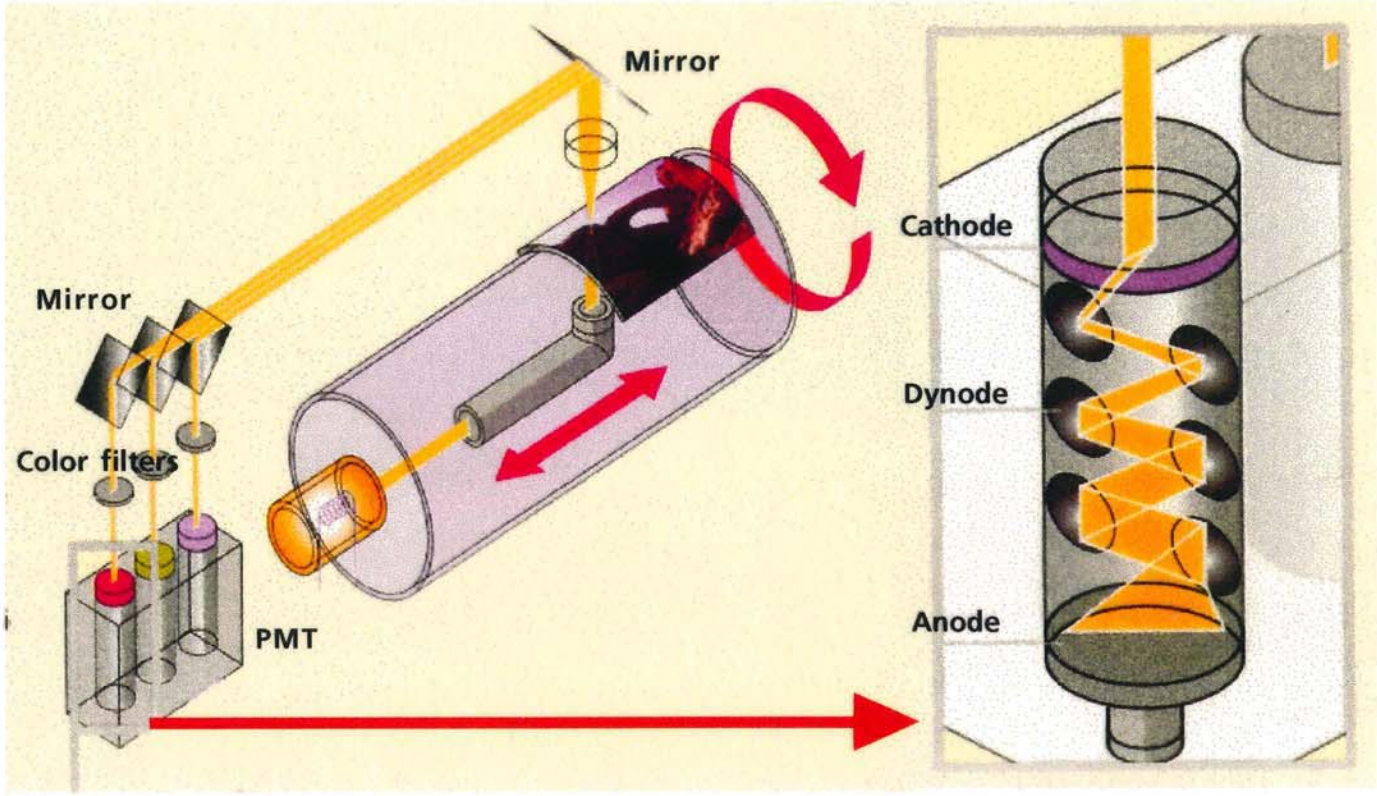
2.1 Punktabtastung



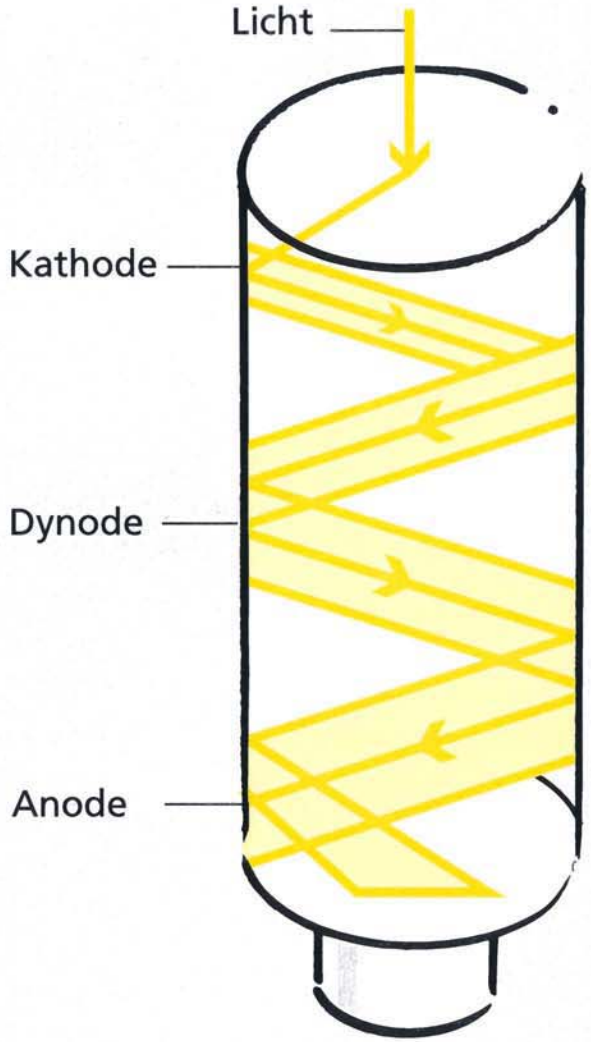
2.1 Punktabtastung



PMT Technology



2.1 Photomultiplier



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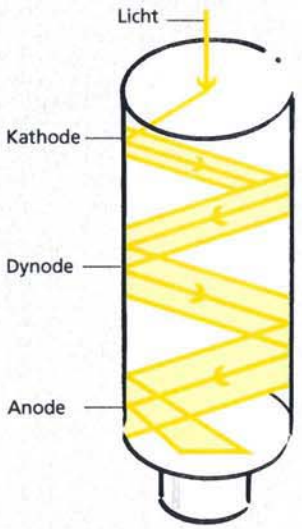
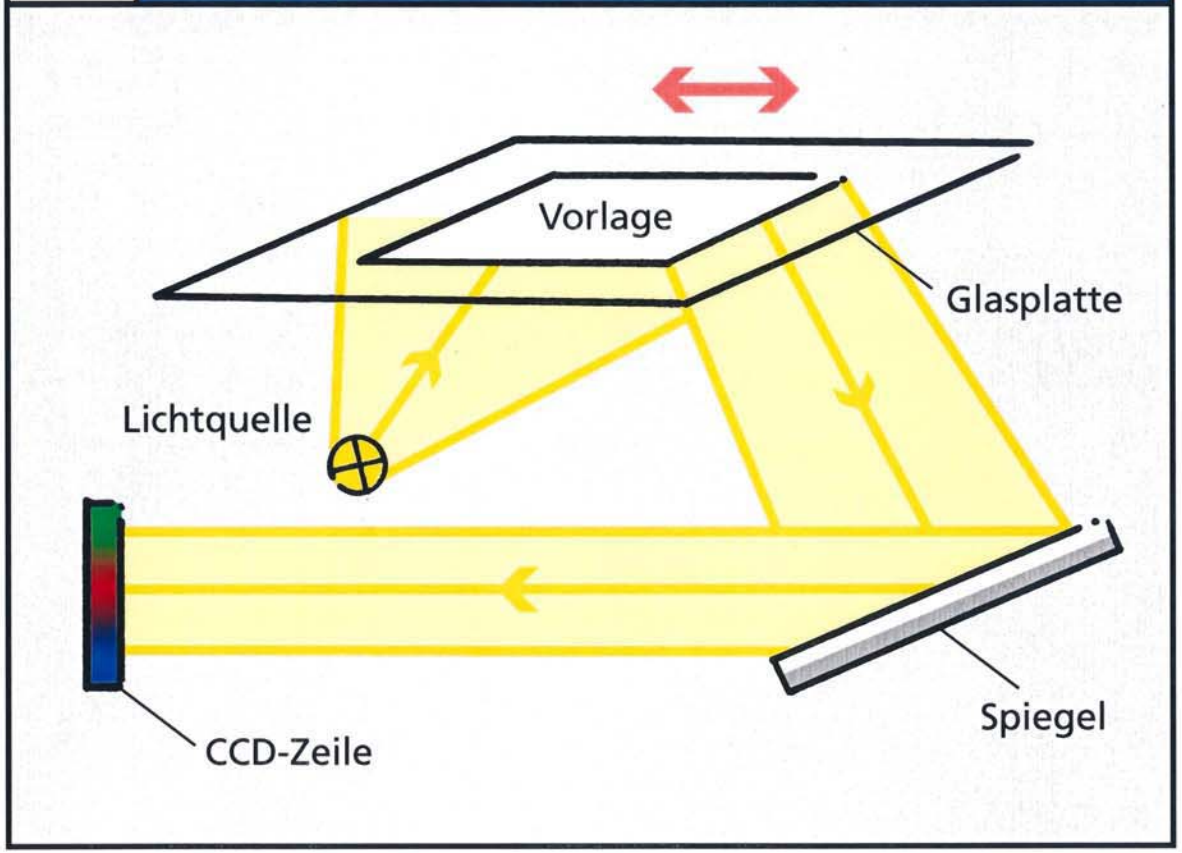
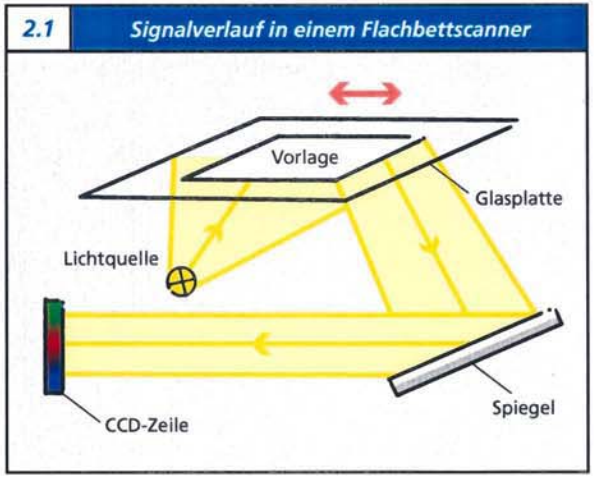


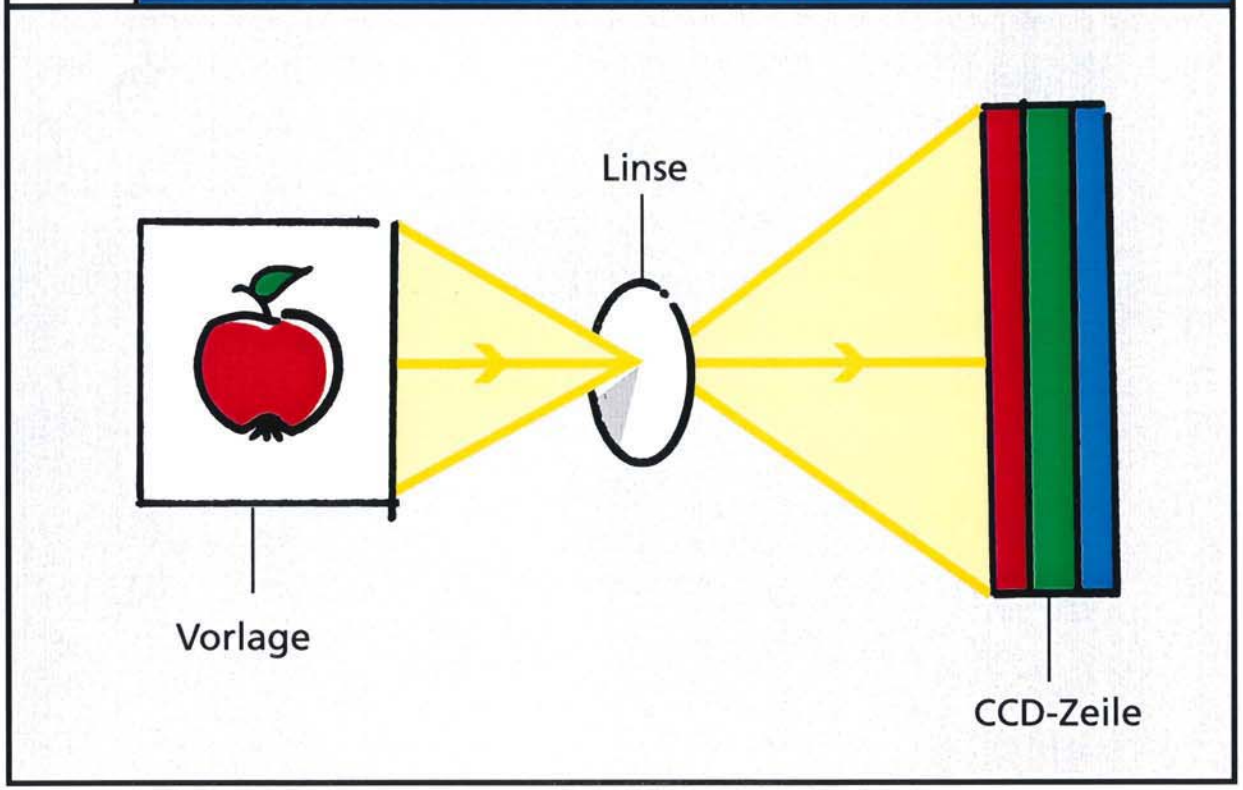
2.1 Signalverlauf in einem Flachbettscanner



2.1 Signalverlauf in einem Flachbettscanner



2.1 Streulicht / Kameraprinzip



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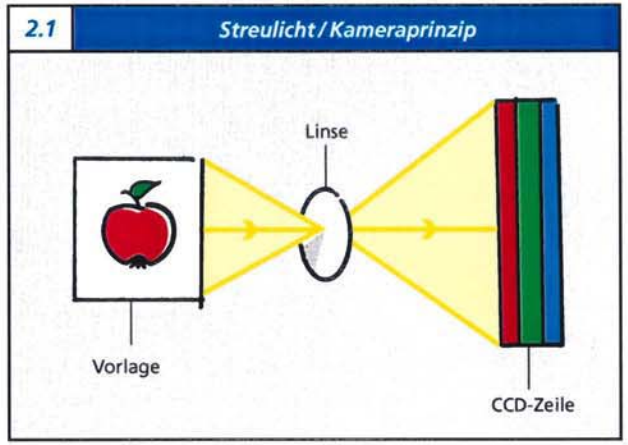
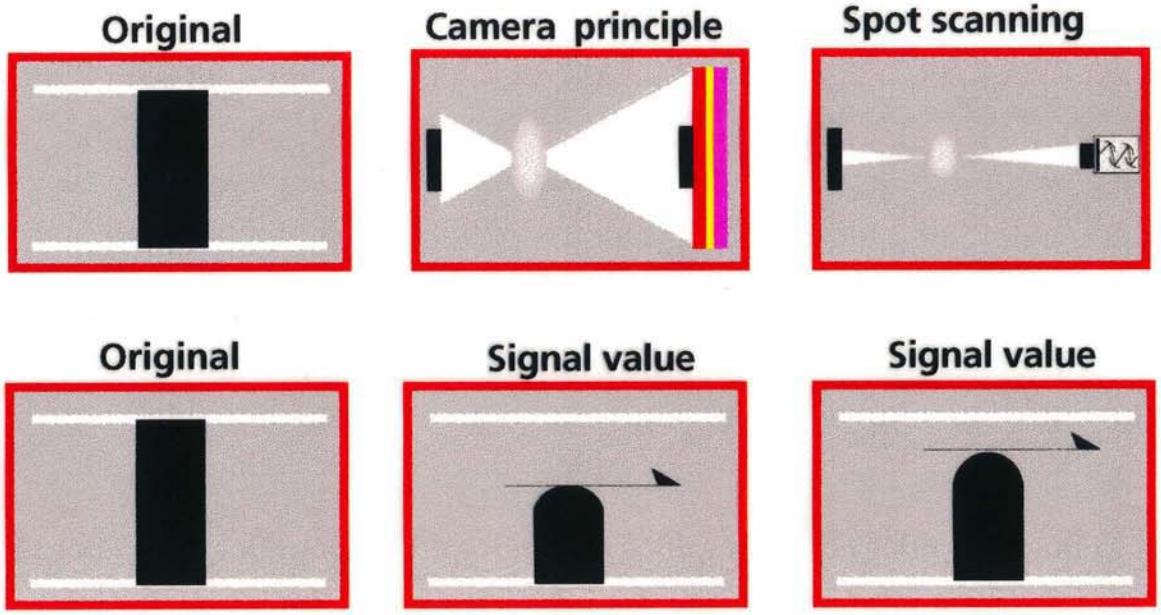


Straylight

Imaging vs. Spot scanning

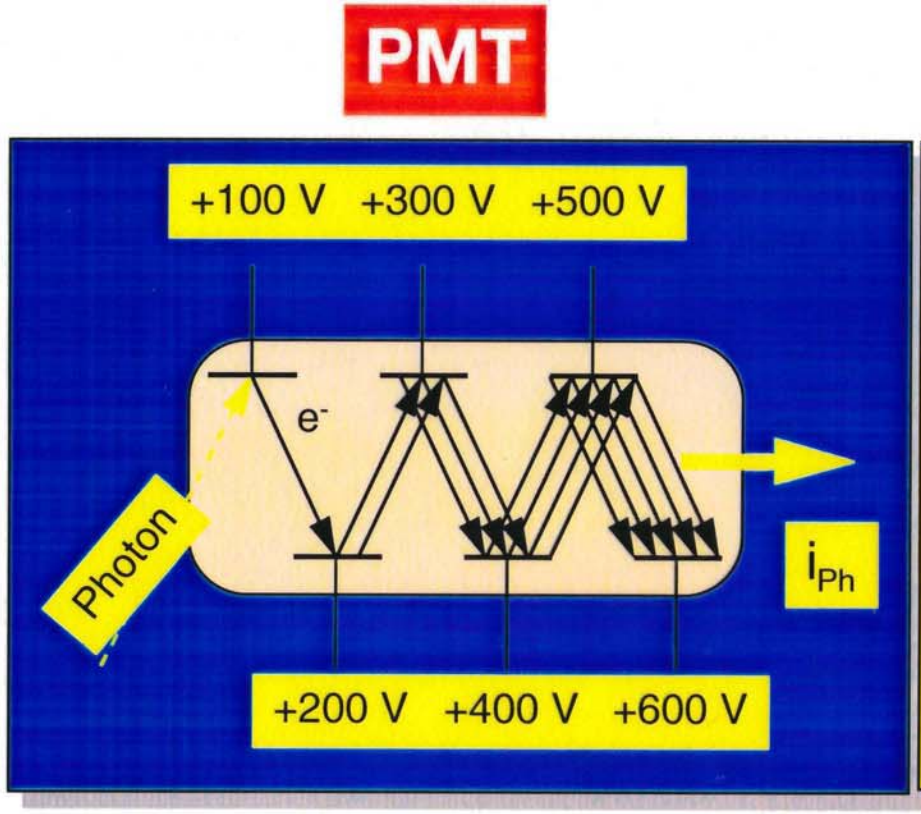


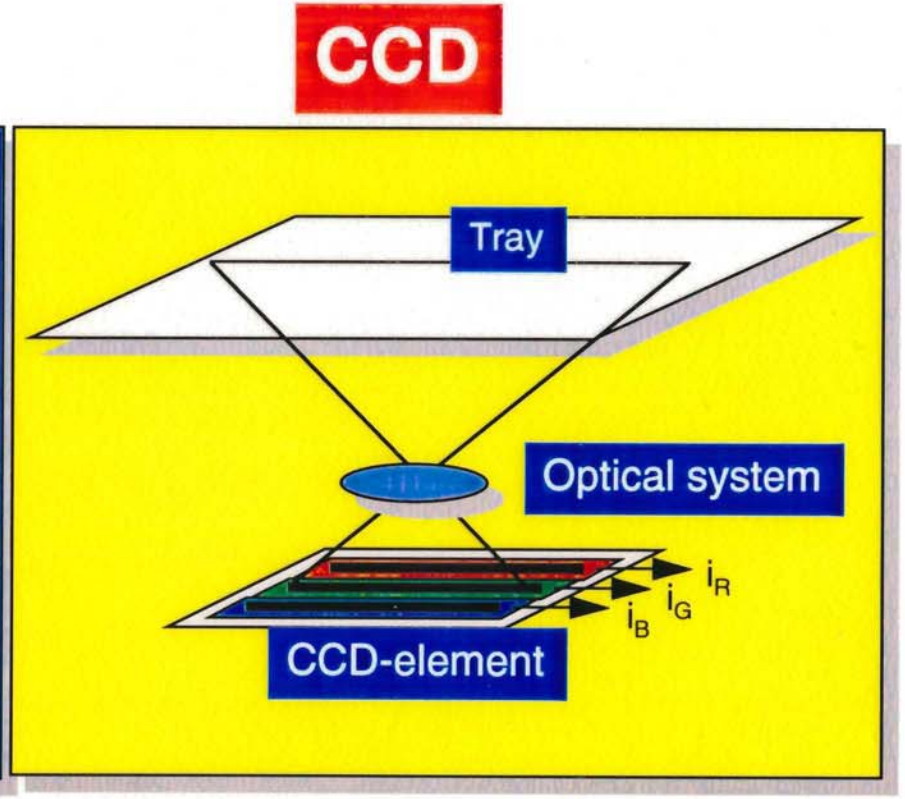
Advantage for spot scanning:
Very little straylight resulting in higher density resolution and better detail contrast

Hell Verein / www.hell-kiel.de

HEIDELBERG PREPRESS

Technology





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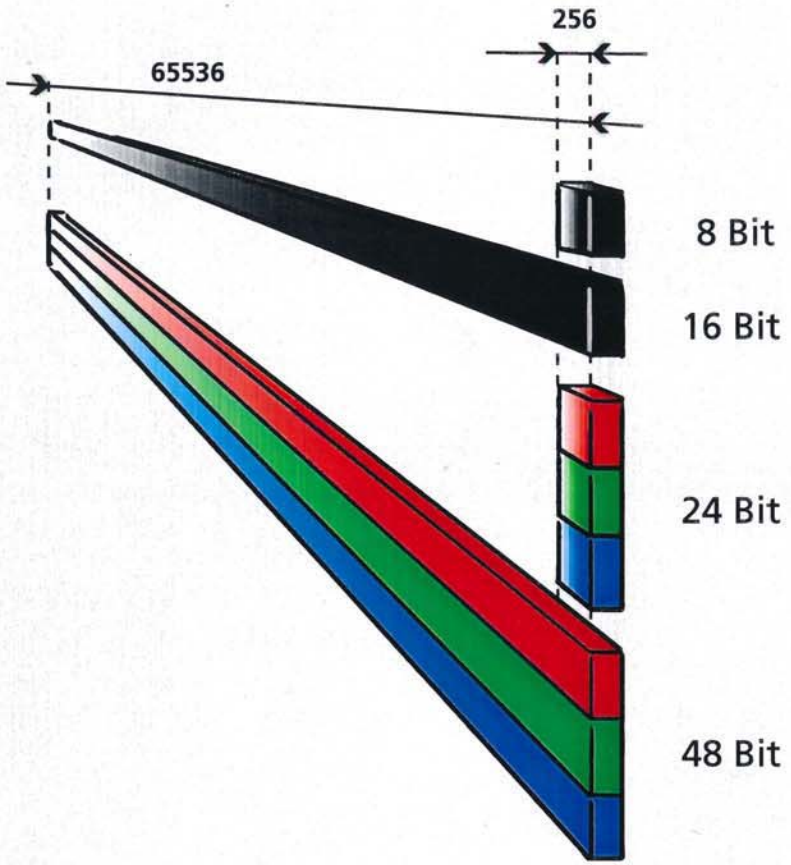
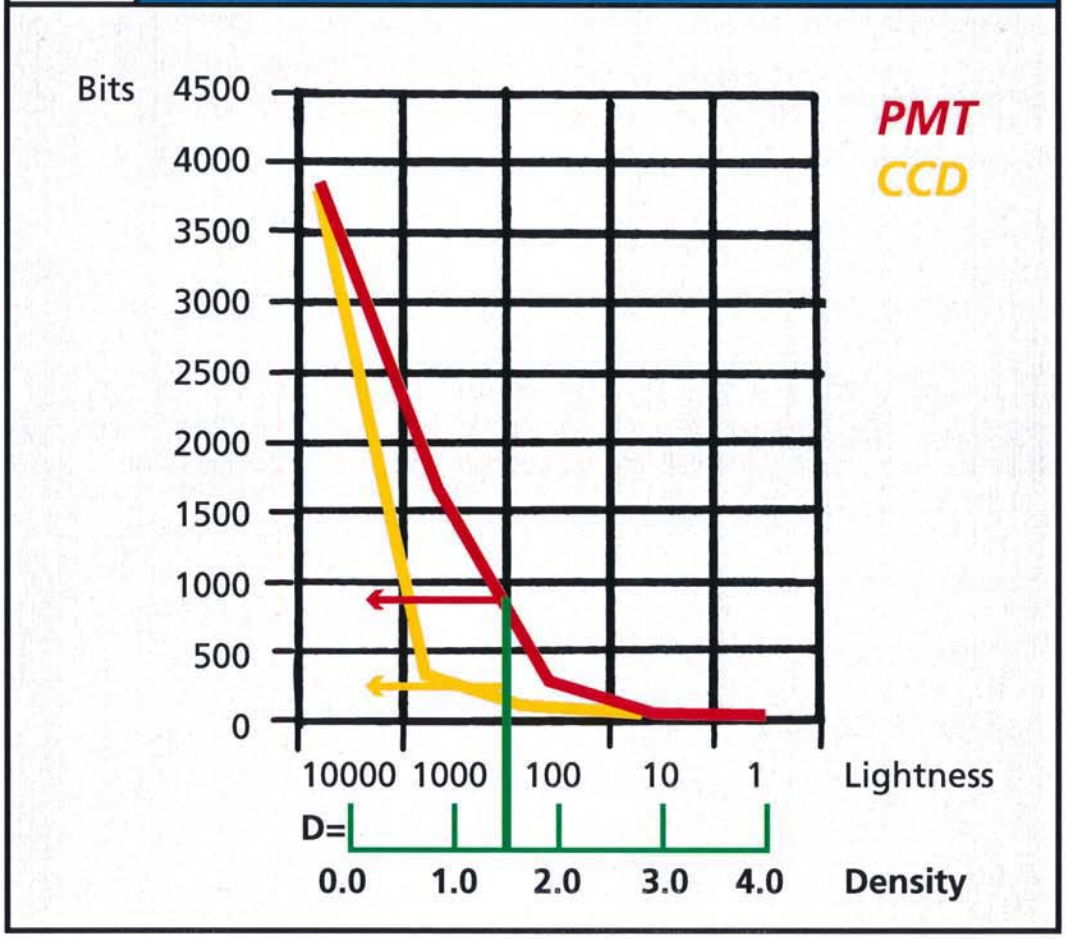
2.1 Bittiefe und Graustufen



Bittiefe	Graustufen-Anzahl
5	32
6	34
7	127
8	256
9	512
10	1 024
11	2 048
12	4 092
13	8 192
14	16 384
15	32 768
16	65 536

2.1 Dichtekurve bei PMT und CCD



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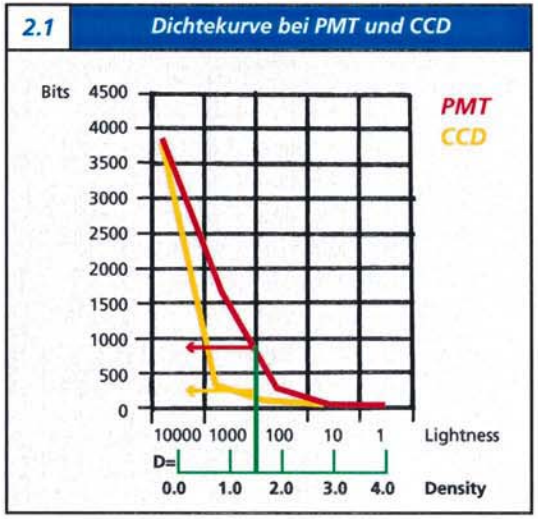
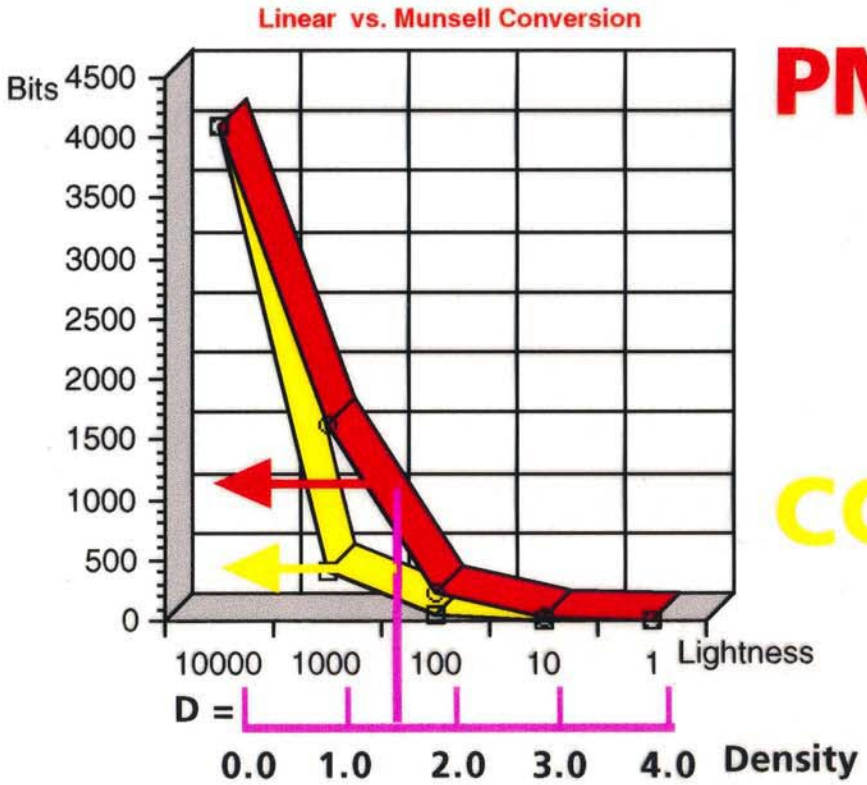


Bit depth

Bits and bits are not the same



PMT with Munsell conversion 12 Bit

more details and better color saturation in dark areas through visually adapted distortion and preamplifacation

CCD with linear conversion 16 Bit

necessary for equivalent resolution in shadow areas

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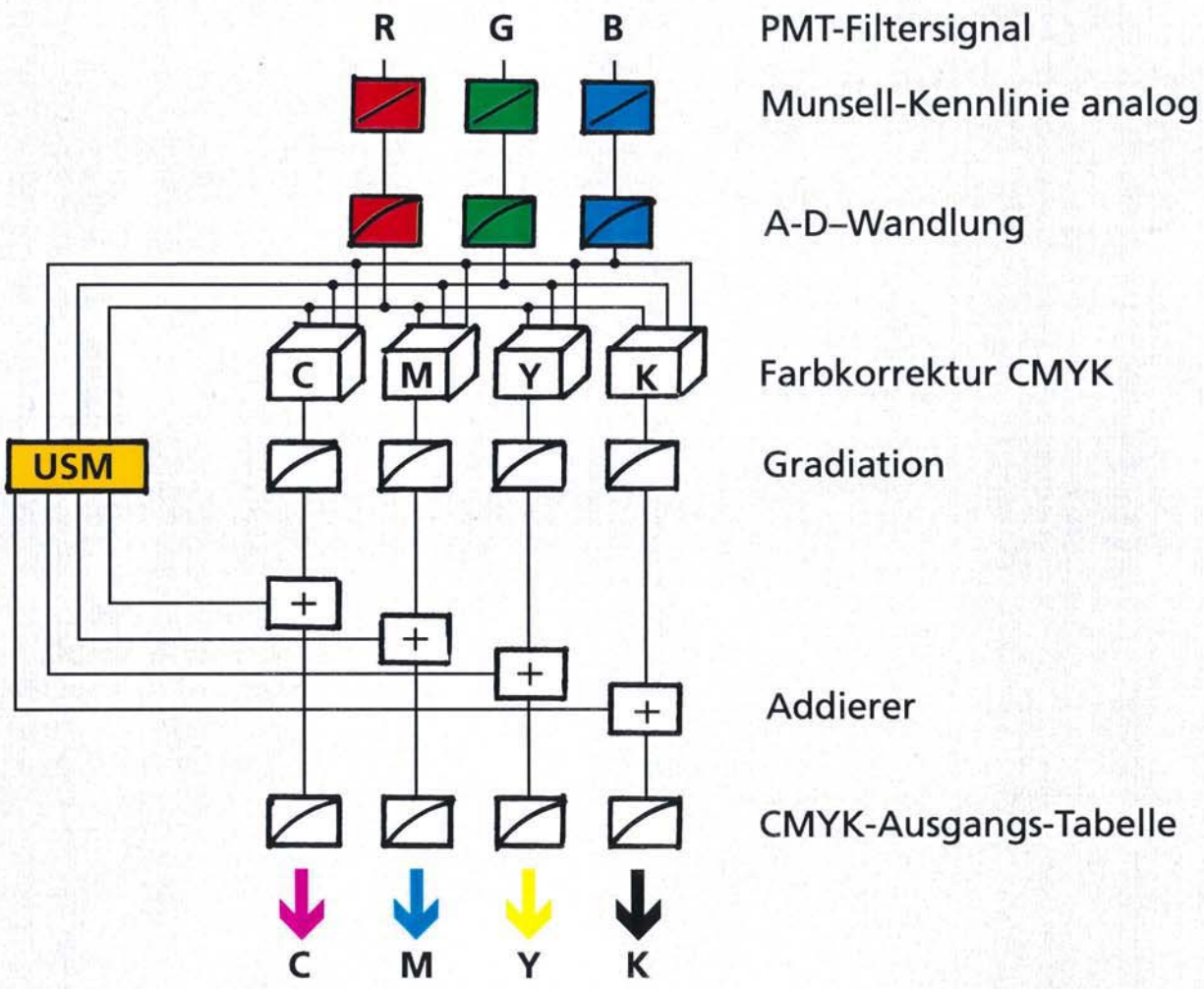
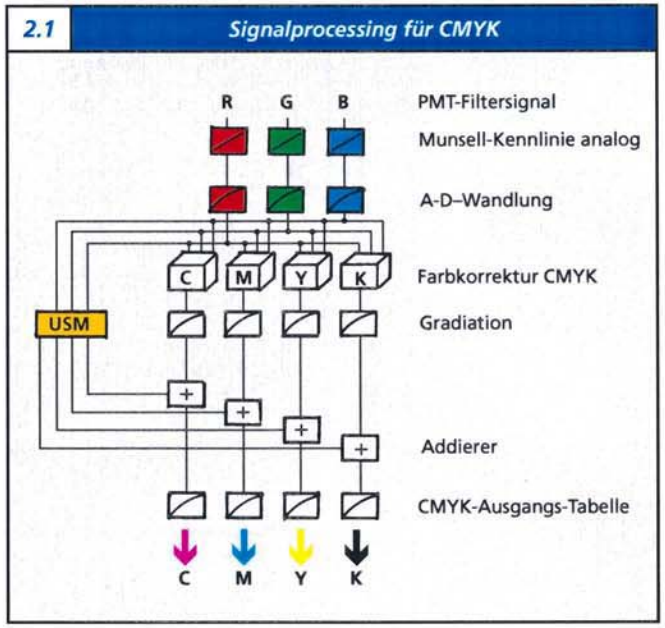
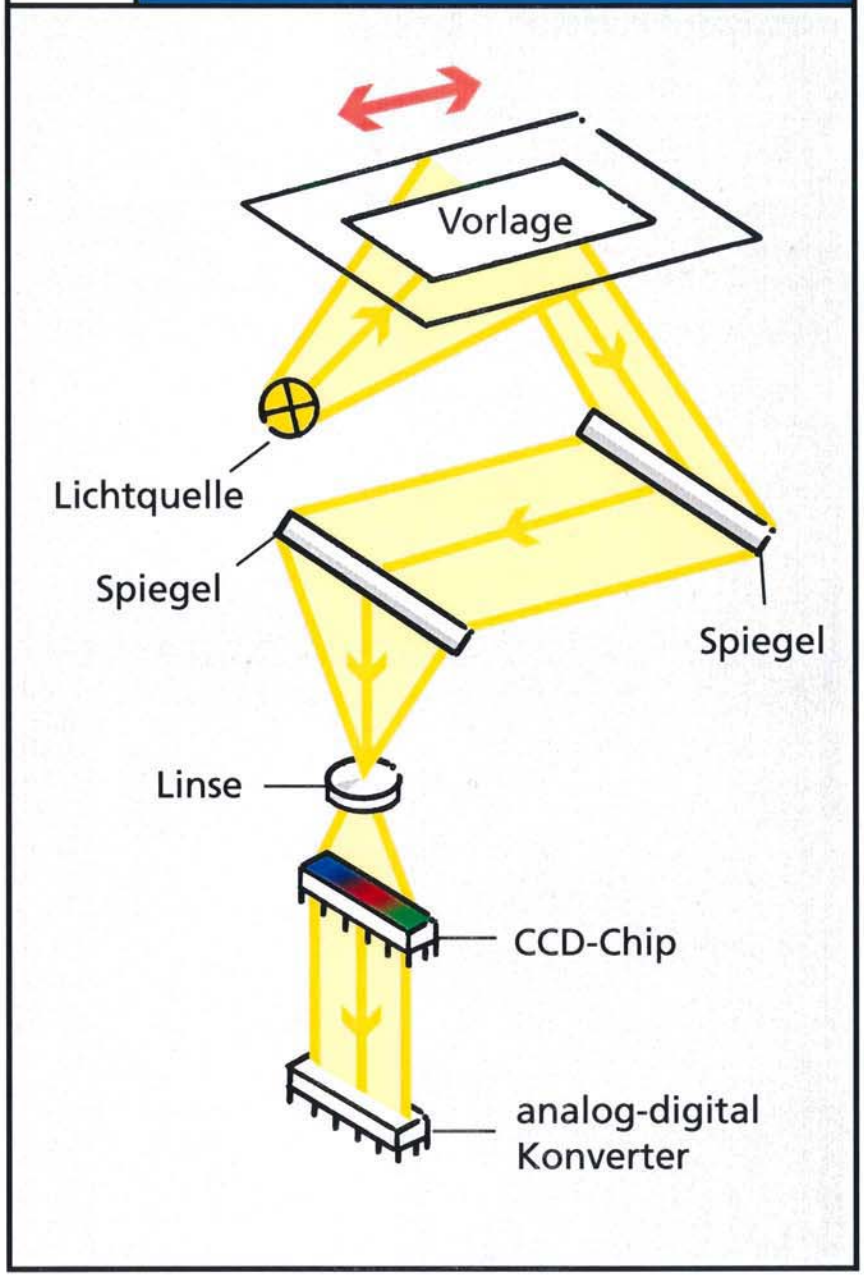
2.1 Signalprocessing für CMYK





2.1 Scanprinzip



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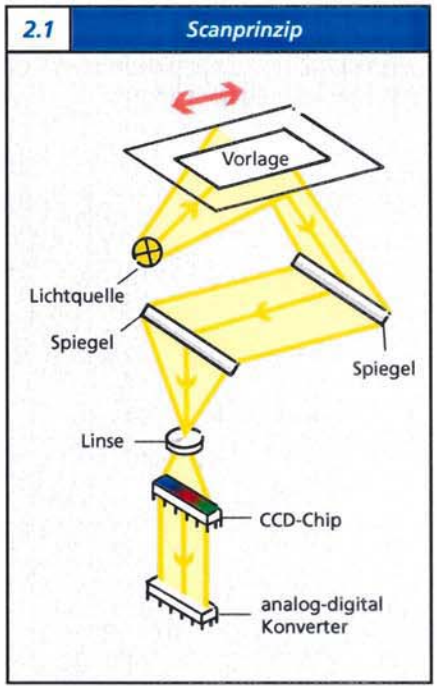
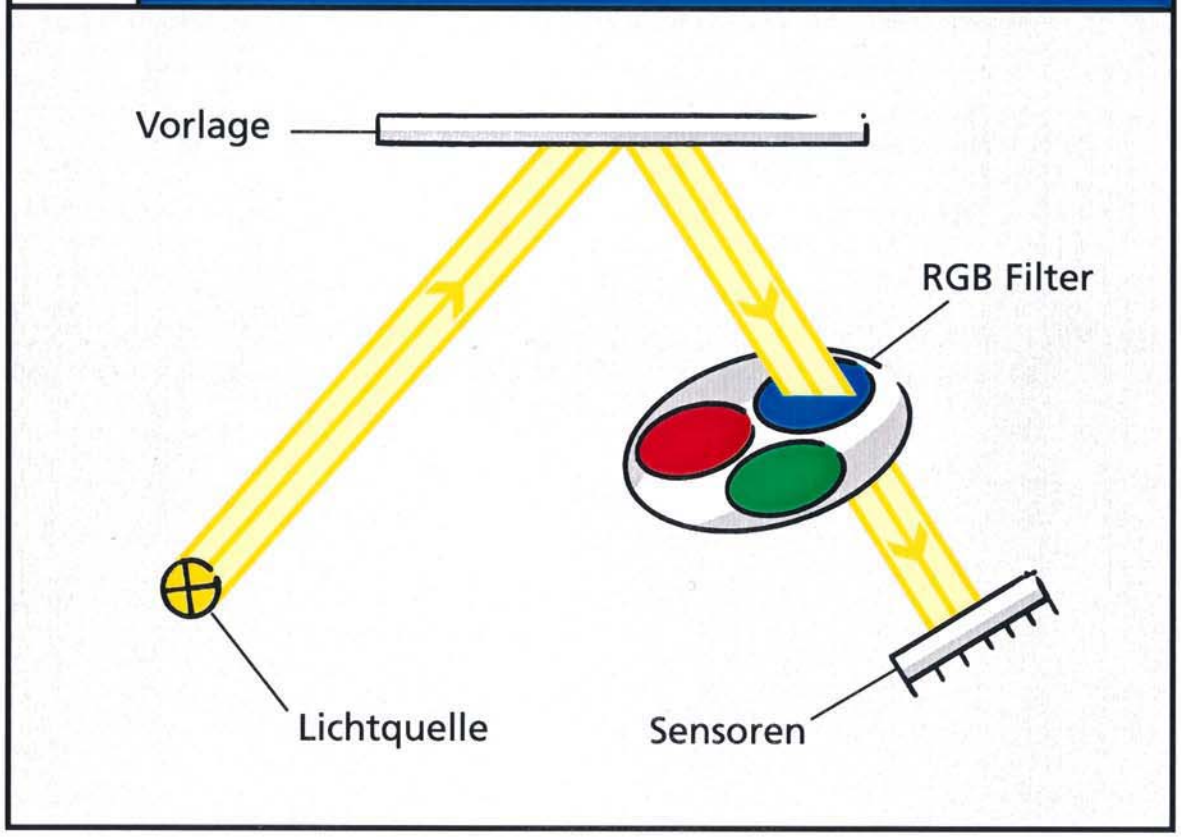


2.1 Dreipass-Scanvorgang



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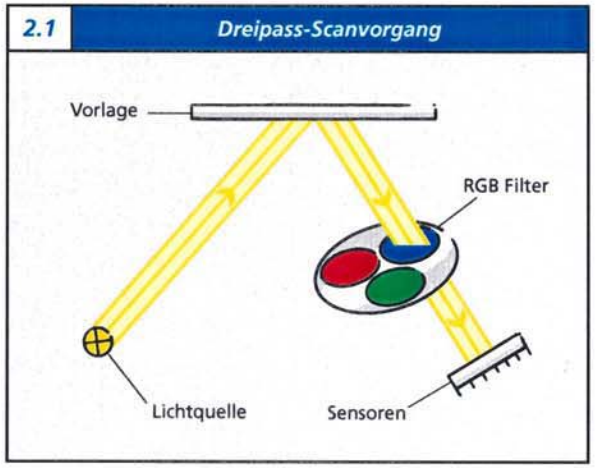
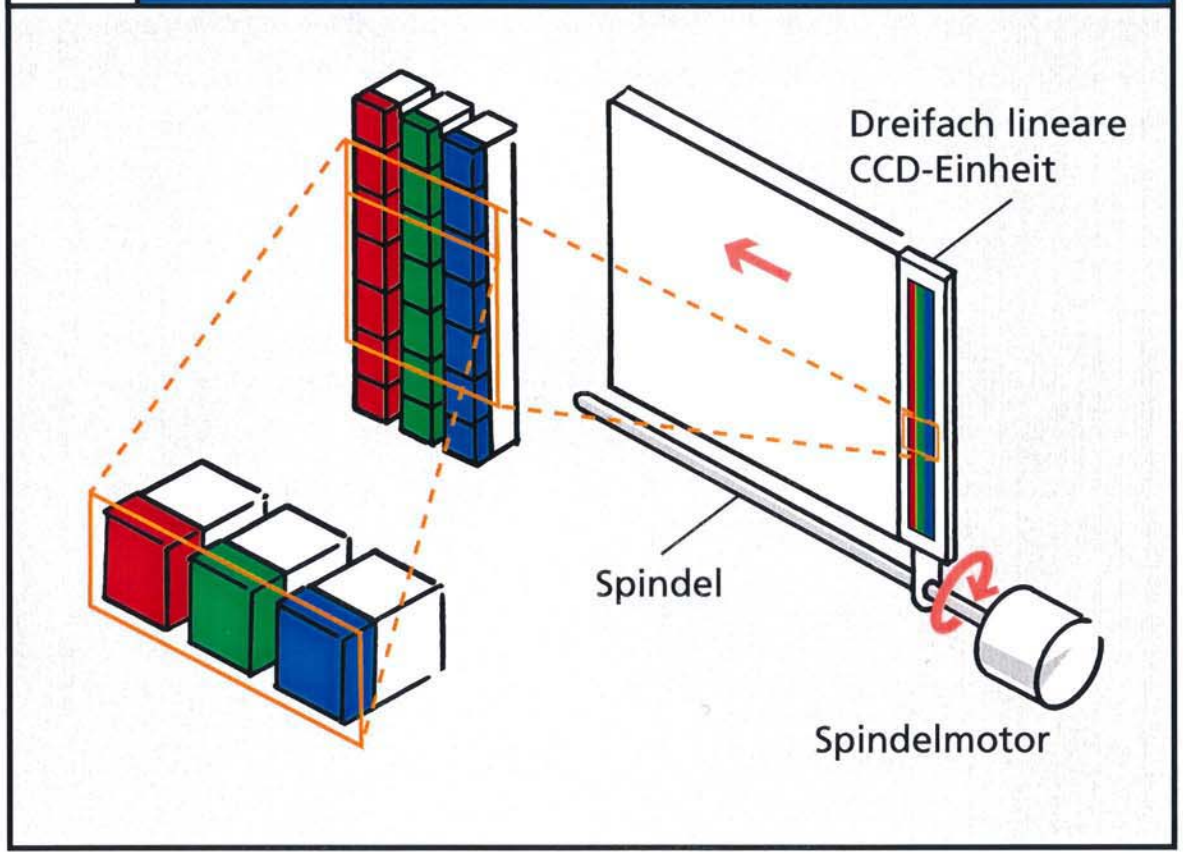


2.1 Trillineare CCD-Zeile



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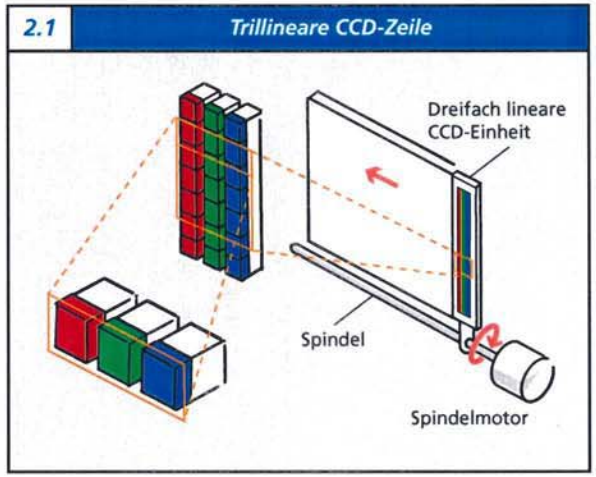
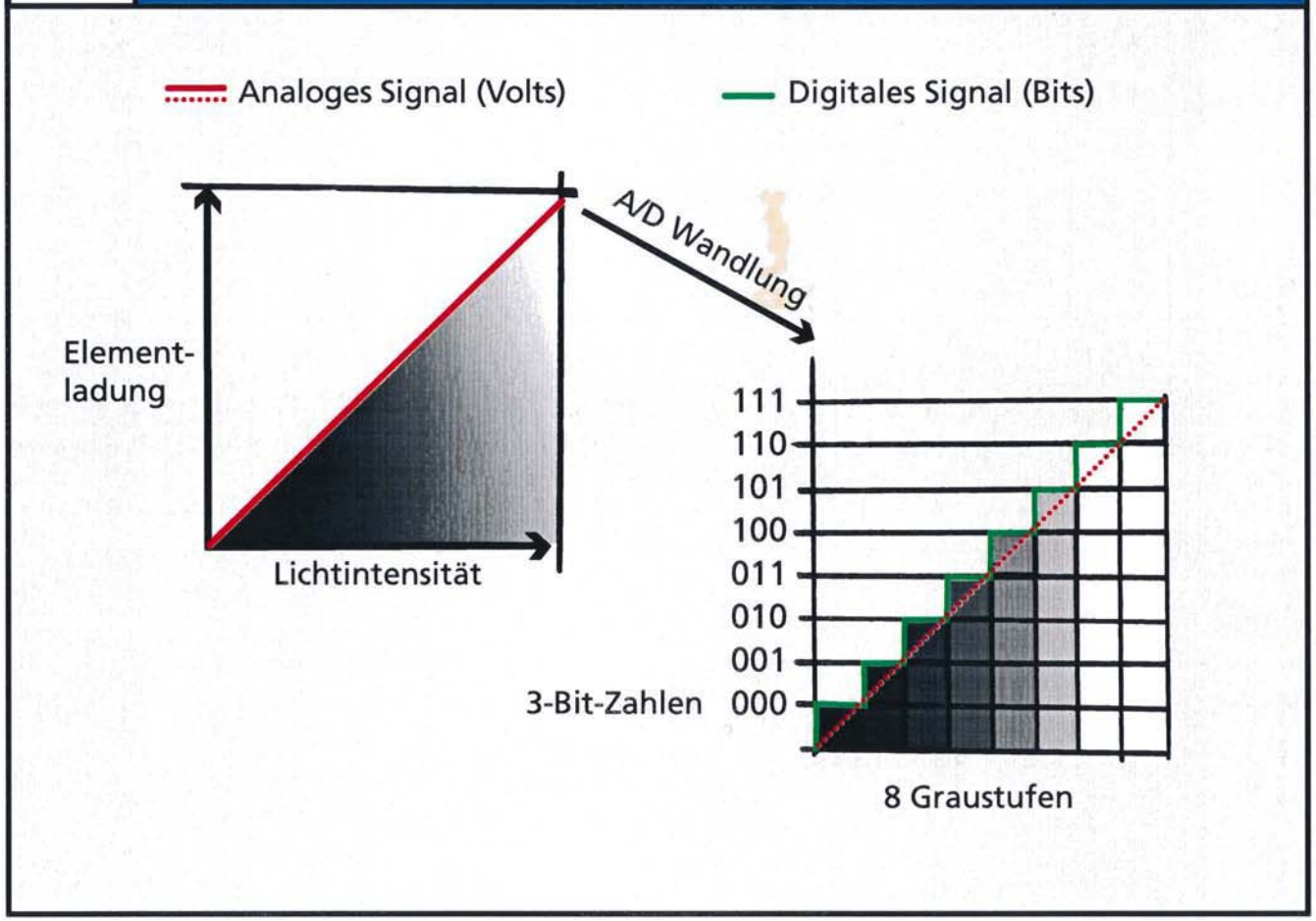
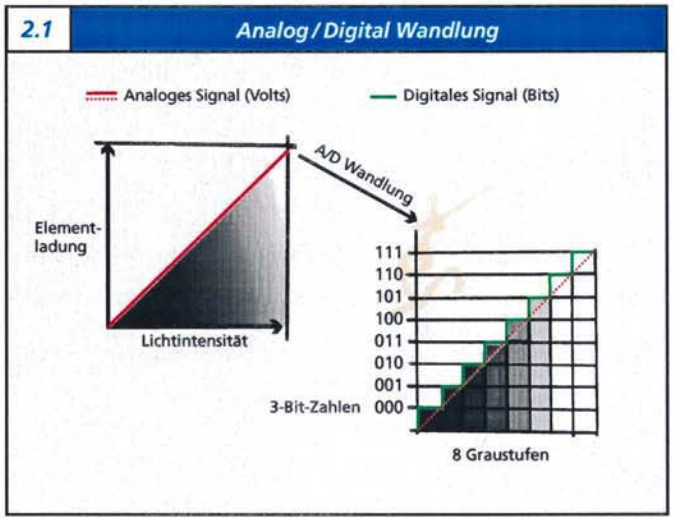
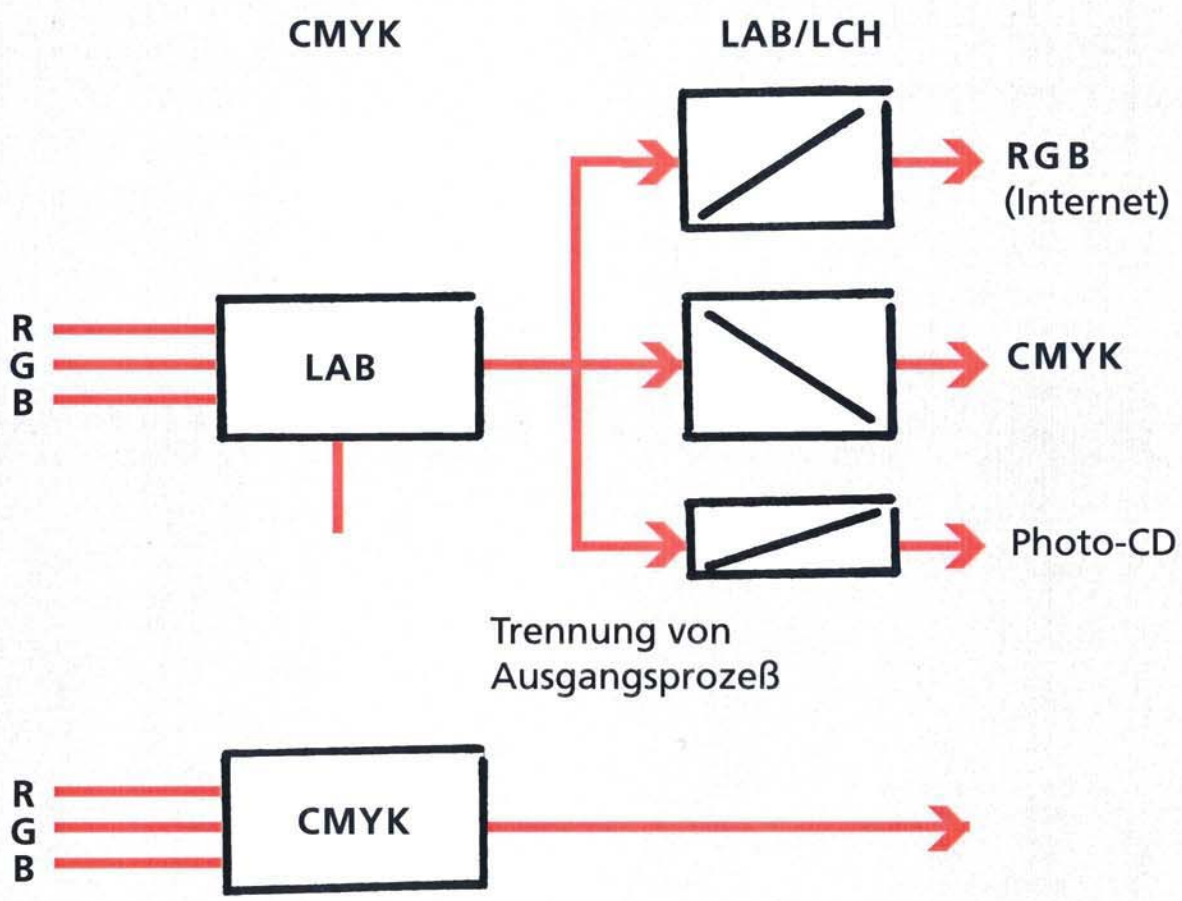


2.1 Analog / Digital Wandlung





2.1 Farbrechner



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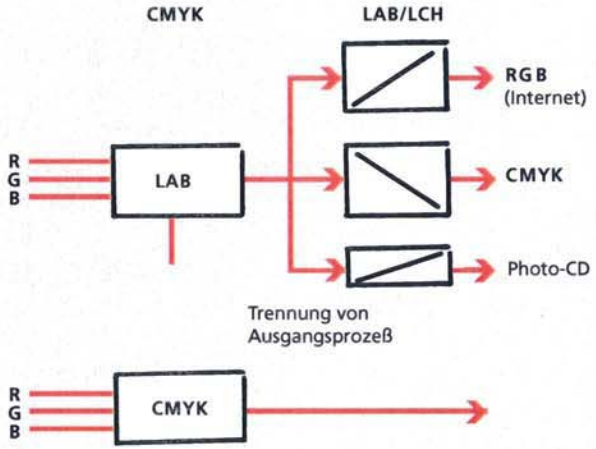
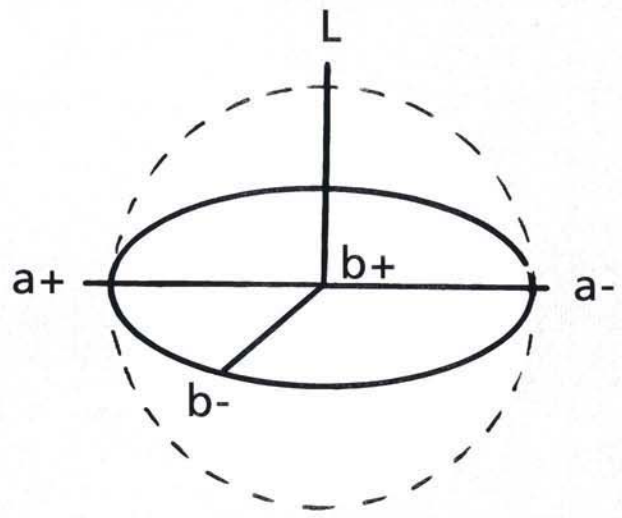
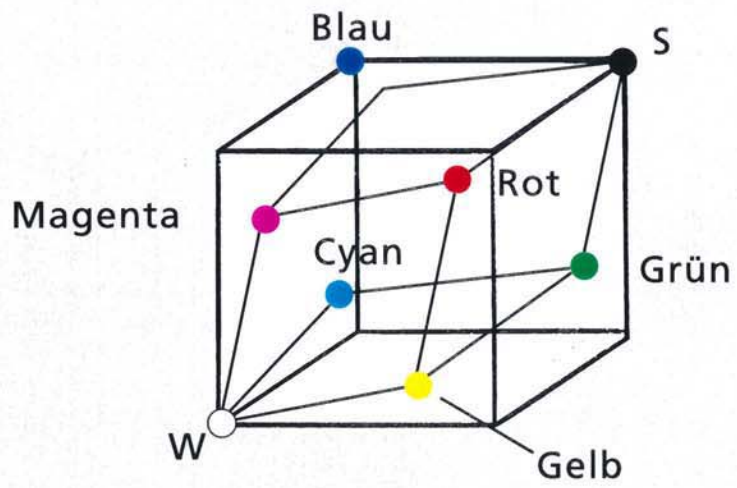


2.1 Farbraum LAB



2.1 Farbraum CMYK