



## **ROG MICROSCOPY & CONSULTING SERVICES LLC**

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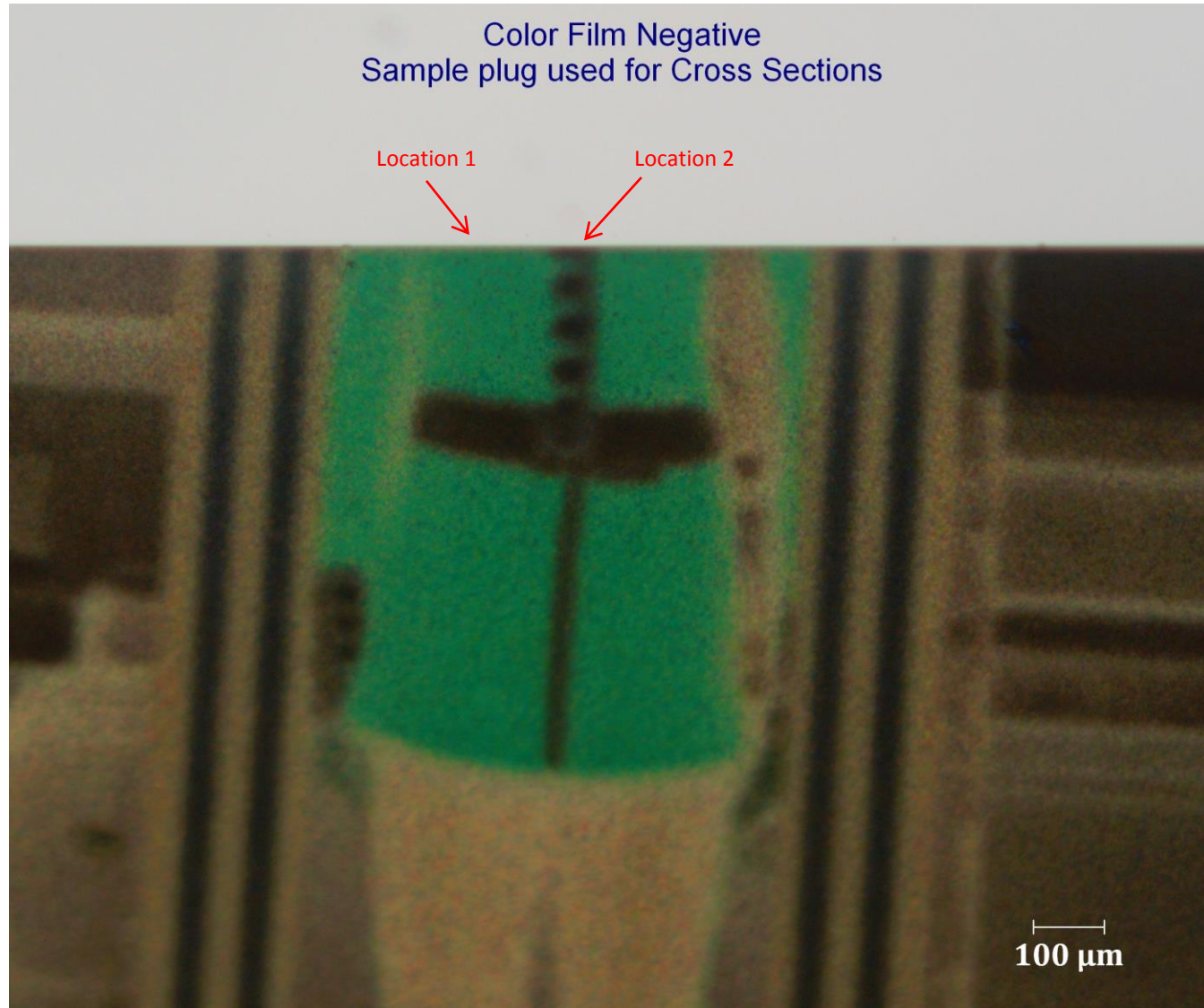
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**Case Study: Cross section of Silver Halide based Color Negative Photographic Film and Color Paper.**

The film was cross sectioned using a Leica 2165 Microtome equipped with a stainless steel blade. The sample was sectioned at 4 $\mu$ m and placed in oil for unswollen sections and in Immu-Mount for the swollen sections.

The paper was prepared for cross sectioning by first removing the paper fiber base prior to sectioning. The sample was sectioned at 4 $\mu$ m and placed in oil for unswollen sections and in Immu-Mount for the swollen sections.

# Color Negative Photographic Film



Sample plug  
Transmitted BF

# Color Negative Photographic Film

## Unswollen Cross Section

Location 1

Color Film Negative  
Cross section in oil

10  $\mu\text{m}$

Transmitted BF

Location 2

Color Film Negative  
Cross section in oil

10  $\mu\text{m}$

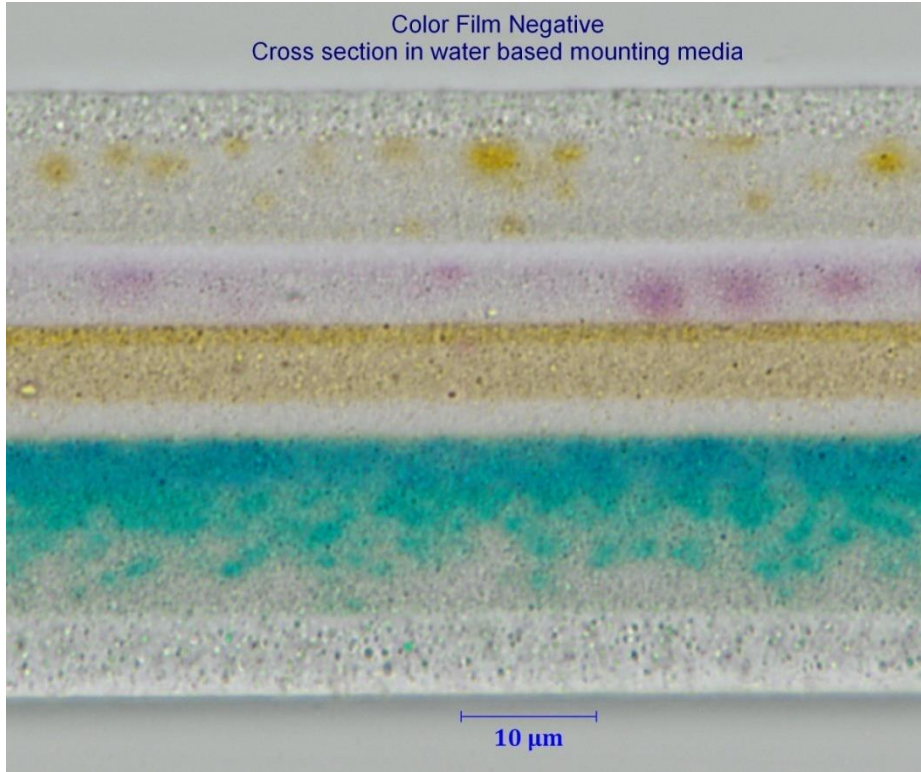
Transmitted BF

# Color Negative Photographic Film

## Swollen Cross Section

### Location 1

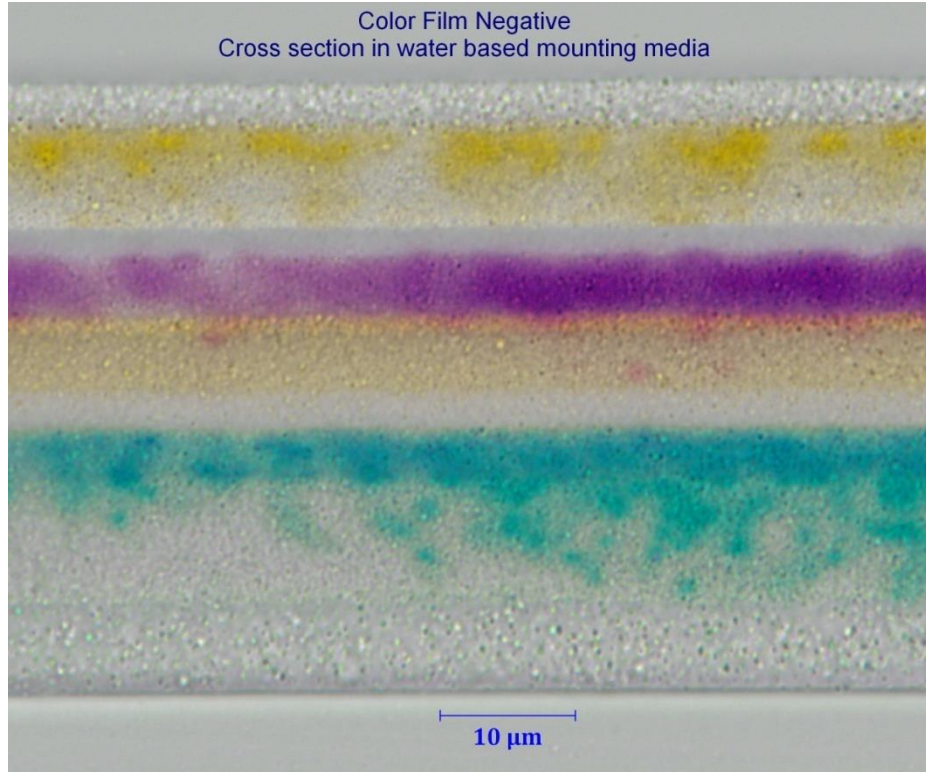
Color Film Negative  
Cross section in water based mounting media



### Transmitted BF

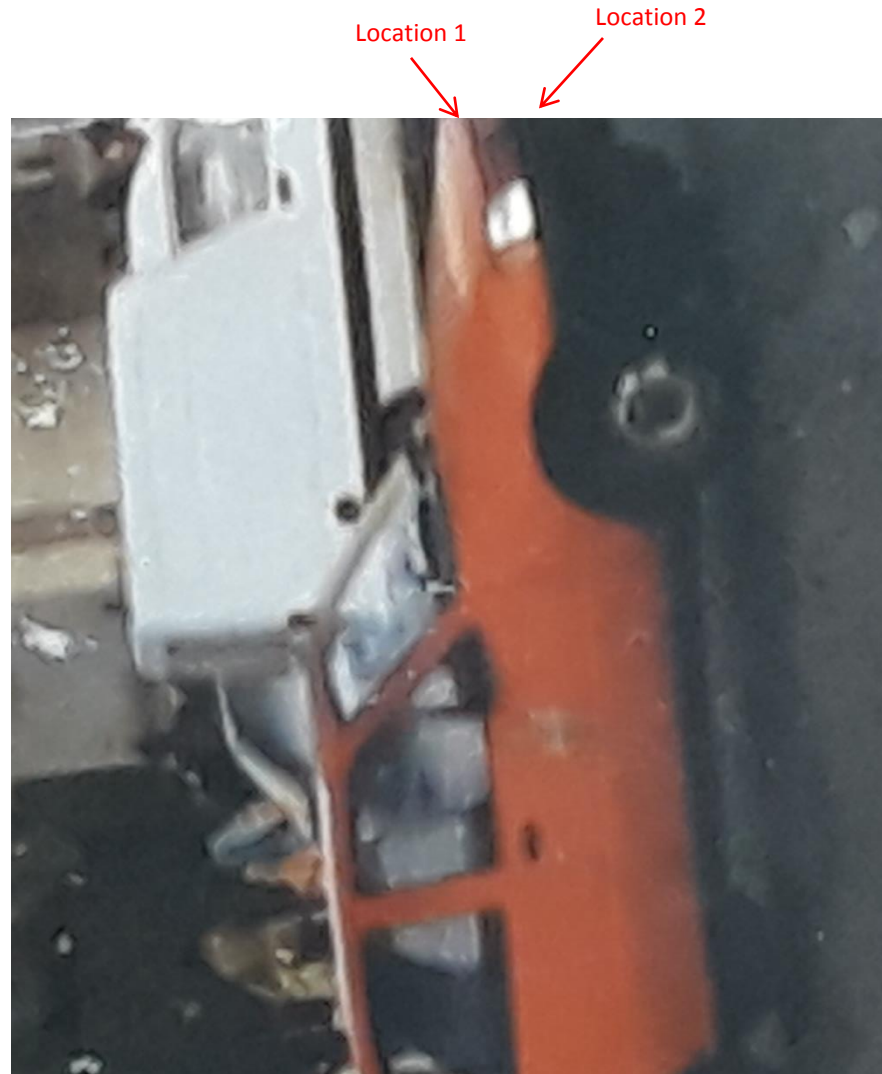
### Location 2

Color Film Negative  
Cross section in water based mounting media



### Transmitted BF

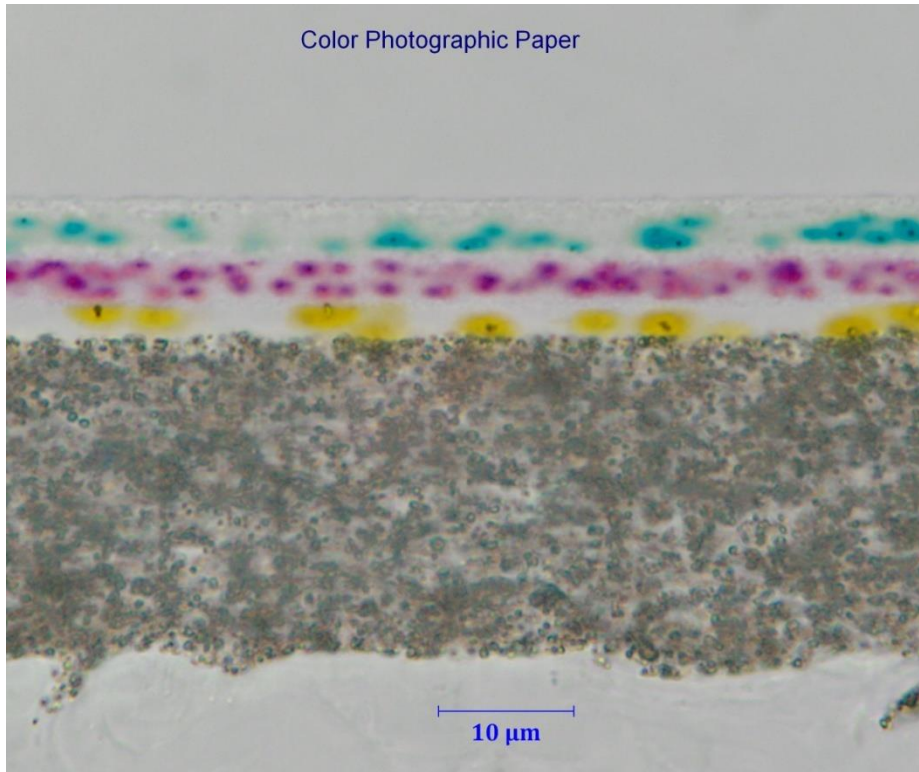
## Color Photographic Paper



Sample plug  
Reflected BF

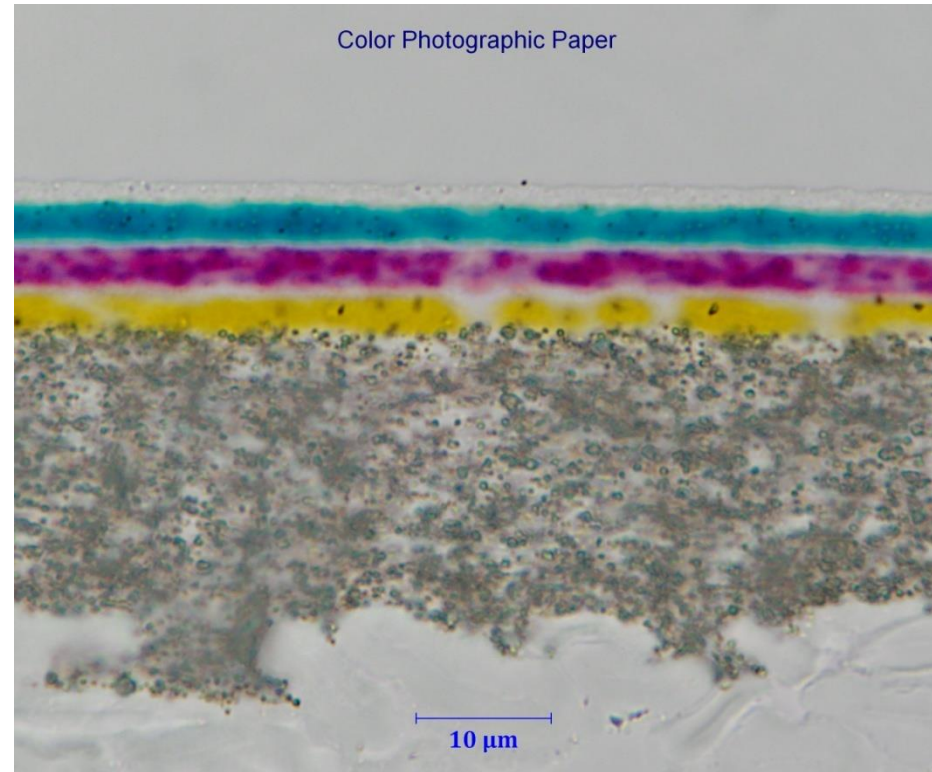
# Color Photographic Paper Unswollen Cross Section

Location 1



Transmitted BF

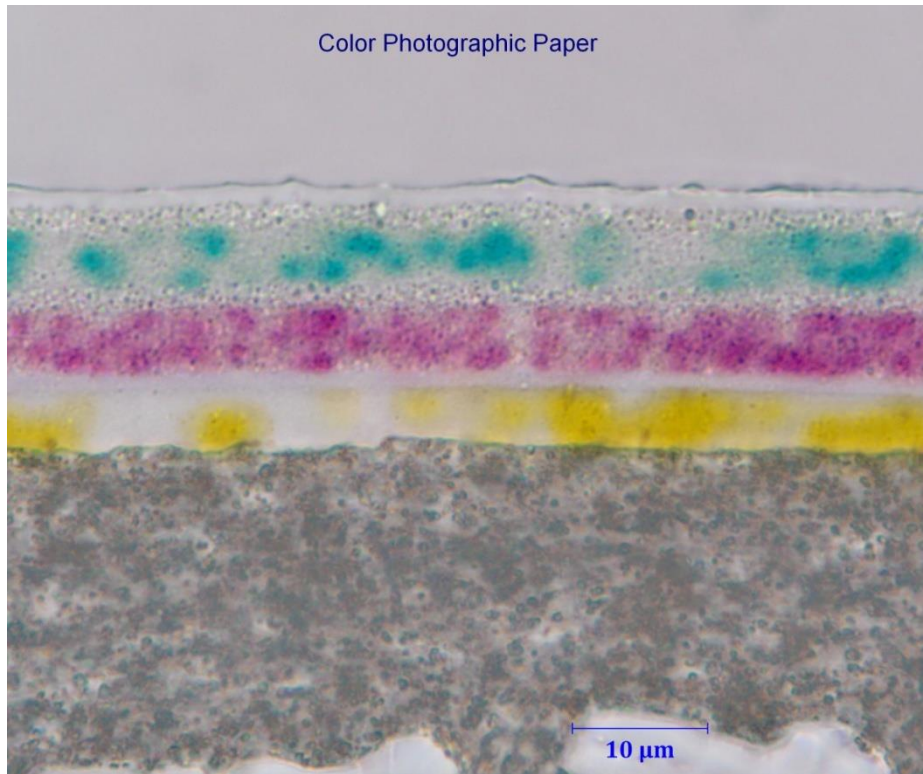
Location 2



Transmitted BF

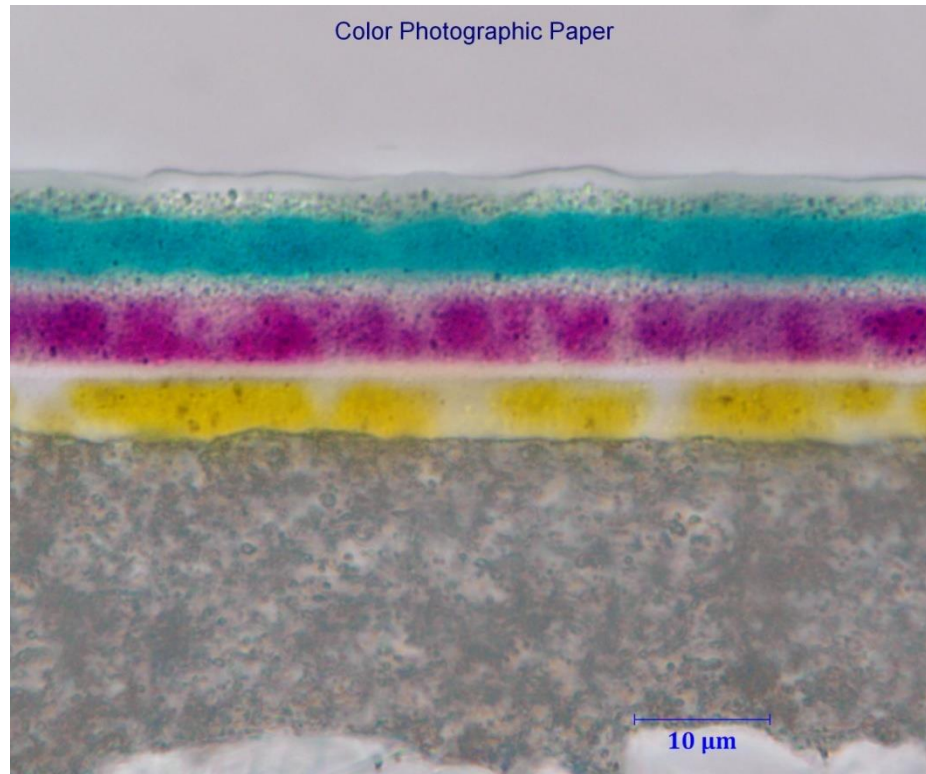
# Color Photographic Paper Swollen Cross Section

Location 1



Transmitted BF

Location 2



Transmitted BF