Studies on Yule-Nielsen Effect

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Optical micro-volume diffusion model is applied to the Yule-Nielsen effect in a two-dimensional domain. Line spread functions are calculated by using computer simulations.

Reflectance and transmittance of papers and width of spread functions are given by diffusion coefficients and paper thickness. Effect of Yule-Nielsen effect for reproduction of black and white lines are analytically discussed.

When it came to planning the exact use of the technology, however, there were no established guidelines. With no model to follow, AD was willing to break new ground and explore what could be done.

This paper revolves around what was done and the outcomes. It is a plain language description of the project. It includes: the early and subsequent decisions on what to measure; changes to the sampling technique, and why the changes were made; attitudes, logistics, and the people factor; the design of the database; overall coordination requirements needed to make the project work; the type of data generated, and the progression of choices made for reporting it; the nature of the industry expertise involved in the project; and the plans for the next step.

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