



INFRAREDESIGN

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Description of invention

Graphic printing inks respond in different ways when they are in the wavelengths of a near infrared (NIR) area. Control of color properties is based on planning infrared graphics to create new ways to protect information on printing. **INFRAREDESIGN** is planned separation method with the process and spot inks that carries multiple information depending on the conditions of scanning in the infrared range. The image that is invisible in daylight can be covered with a realistic image, colorful image like result of stochastic pixel algorithm or vector graphics with equalizing different printing inks with the same hue in daylight. New *algorithms* have been created where two sources of information are used. The first source is the image whose reproduction we wish to see in daylight.

The second source is the image incorporated into the first image with the goal to be recognized under infrared light. Designing of the new way of protection is introduced in the area of the authenticity of people with embedding image of IR side face in the image of person front face in security documents.

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