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NASA TECH BRIEF



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Coded Photographic Proof Paper Could Serve as Convenient Densitometer

Standard print-out proofing paper, commonly used in commercial portrait photography, can be pre-printed with an identifying code that will convert the paper into a convenient exposure sensor. This "exposure meter" or "densitometer" would be made by printing onto the sensitive proof paper (in the dark) a series of letters or numbers of graduated density corresponding to that of the photographic images that would be produced on the paper at different exposures. When this coded paper is exposed to a light source, the paper darkens in proportion to the amount of exposure and would thereby obliterate the code symbols in sequence. Thus, the symbol that just disappears at any instant would give a measure of the density of the resultant photographic image or the total amount of exposure sustained by the paper. No chemical processing is required for this print-out paper. The photographic image becomes visible with

exposure. It is to be noted that the image on this type of paper is not permanent.

Notes:

1. With appropriate calibration, the coded print-out paper might be useful as a suntan exposure indicator.
2. Any type of paper which is sensitive to progressive measurable changes in a given medium could, in principle, be coded to give a visual indication of the magnitude of the change. Typical examples are impregnated papers used to monitor carbon monoxide concentration and hydrogen ion (pH) concentration.

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

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Category 02

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This report was prepared by the Langley Research Center, NASA, Hampton, Virginia, under contract to the U.S. Army Research Office-Durham, Durham, North Carolina. It is available to the public for a fee of \$12.00 per copy.

Coded Photographic Proof Paper Could Serve as Government Confidentiality

The use of a coded photographic proof paper could serve as a government confidentiality device. This paper is made from the same materials as the standard photographic proof paper, but it contains a special code that can be detected by a special device. The code is a series of small, dark spots that are arranged in a specific pattern. This pattern is unique to each sheet of paper and can be used to identify the paper as a government document. The code is invisible to the naked eye, but it can be detected by a special device that is designed to recognize the code. This device is a small, portable unit that can be used in the field. It is simple to use and does not require any special training. The code is also resistant to tampering and can be used to identify the paper even if it has been damaged or altered. This paper could be used for a wide range of government documents, including contracts, reports, and correspondence. It would provide a secure and reliable way to identify and protect government information.

Patent pending.
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