Linear phosphors, the red predominates at a current of one microampere and the green predominates at a current of ten microamperes. Many different hues result with the varying electron beam currents. The figure illustrates apparatus employing the novel composition in a luminescent screen.

The practice of the present invention affords the display of polychromatic luminescent images under extremely reliable conditions. Over the brightness range available with a monochromatic transparency, it is possible to differentiate approximately ten brightness levels. However, when viewing a polychromatic image, it is possible for an observer to discriminate about 200 separate hues at a constant brightness level. Thus, image displays are available to indicate in different colors, giving a better discrimination of the objects being viewed. The simplicity of producing the multicolor display screens and their reliability represent important advantages in the use of this apparatus.

Note:
Requests for further information may be directed to:
Technology Utilization Officer
Headquarters
National Aeronautics and Space Administration
Washington, D.C. 20546
Reference: B70-10440

Patent status:
This is the invention of a NASA employee and a patent application has been filed. Inquiries concerning license rights may be made to the inventor, Mr. Edwin H. Hilborn, through NASA Headquarters.
Source: Edwin H. Hilborn
Electronics Research Center
(ERC-10010)