

HYPERSPECTRAL IMAGING DEVICE

ABSTRACT OF THE DISCLOSURE

An imaging device for processing light comprising a polariser defining an X-Y plane having an X-axis and a Y-axis, wherein an optical axis extends along a Z-axis perpendicular to the X-Y plane. The polariser is adapted to transmit light linearly polarised at a polarisation angle formed in the X-Y plane. A first birefringent layer having an first optic axis at a first angle formed in an X-Z plane formed by the X-axis and the Z-axis, and a second birefringent layer having an second optic axis formed at a second angle. An analyzer adapted to transmit light from the second birefringent layer to a camera. The light so transmitted is linearly polarised at an analyzer angle formed in the X-Y plane. The device has only two birefringent layers, and the light transmitted to the camera forms linear fringes.

Fig. 2