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“image Spectrometry Sensors”

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Abstract

The development of the image spectrometer instruments for scientific investigations from aircraft and space born platforms is now mature. Recent advances in technology for optics, materials, structures, focal plains and signal processing open doors for miniaturization of the next generation imaging spectrometers. Technology areas discussed within the framework of a sensor system are: high-speed massively parallel miniature mural networks, silicon carbide optical benches, hologram optical elements for innovative spectroradiometers and quantum well infrared photoconductors. A history of technology evolution, new areas for instrument development and new applications will be presented.