Versatile multispectral microscope based on light emitting diodes

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We describe the development of a novel multispectral microscope, based on light-emitting diodes,capable of acquiring megapixel images in thirteen spectral bands from the ultraviolet to the near infrared. The system captures images and spectra in transmittance, reflectance, and scattering modes.We present as examples of applications ground truth measurements for remote sensing and parasitology diagnostics. The system is a general purpose scientific instrument that could be used to developdedicated simplified instruments with optimal bands and mode selection.

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