

**CERCETAREA SPECTRELOR DE REFLECTANȚA
A OBIECTELOR BIOLOGICI DE DIMENSIUNI MICI
LA DISTANȚA**

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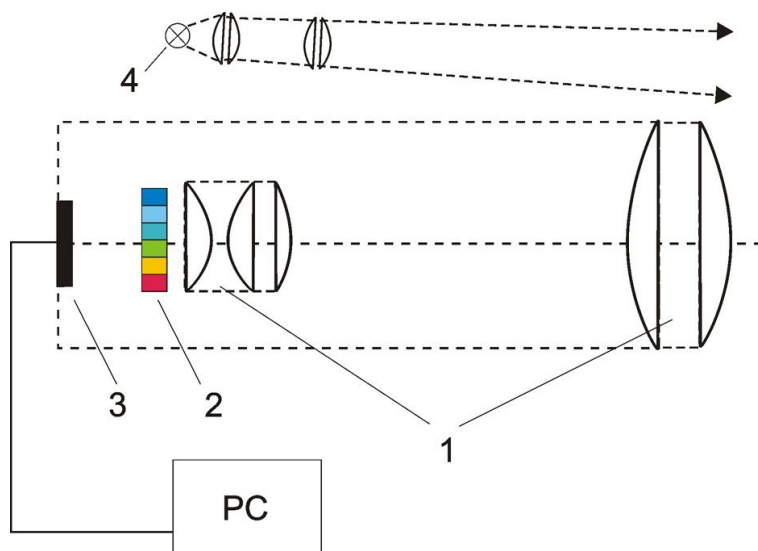


Fig.1 Experimental setup: 1) Telescopic system, 2) Set of narrowband interference filters, 3) Digital camera matrix, 4) White LED module

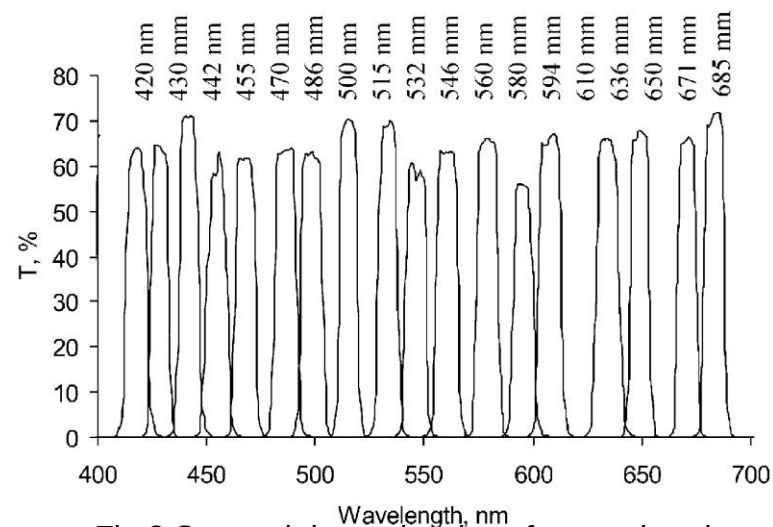


Fig.2 Spectral dependencies of narrowband interference filters

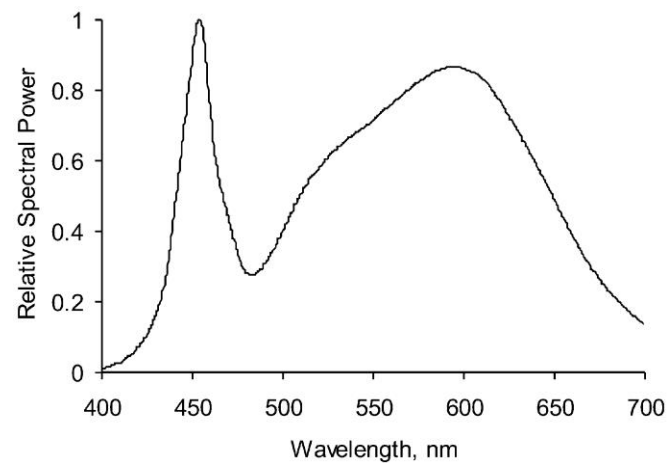


Fig.3 The relative spectral power of the LED module CREE LED CMA 1840

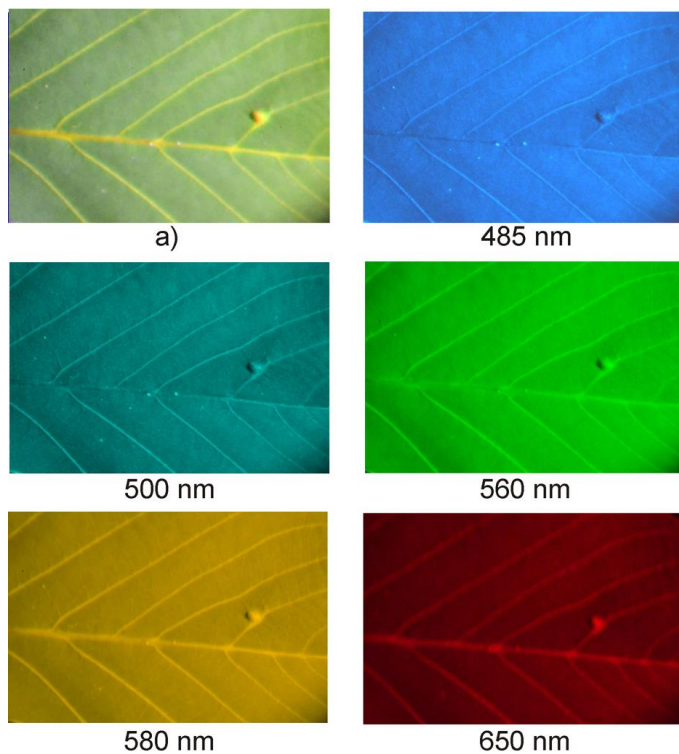


Fig.5 Images of the nut leaf infected by parasitic mite *Eriophyes tristriatus* obtained from the distance of 15 m

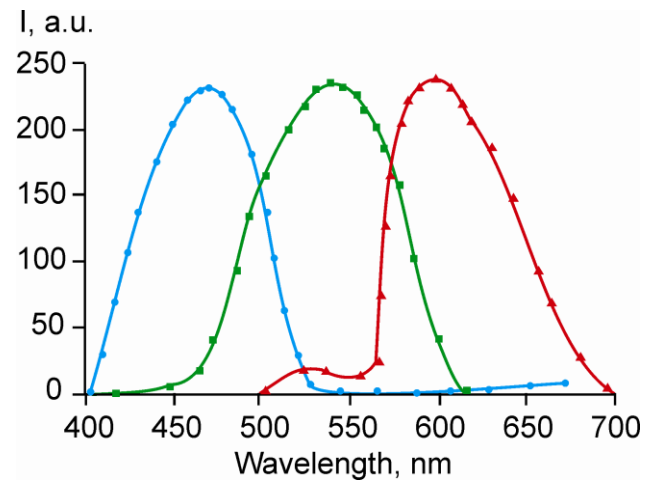
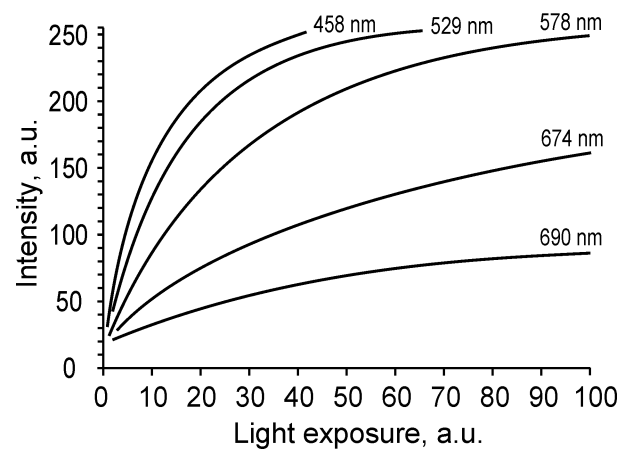


Fig. 6 The relative sensitivity of the digital camera Nikon D3100



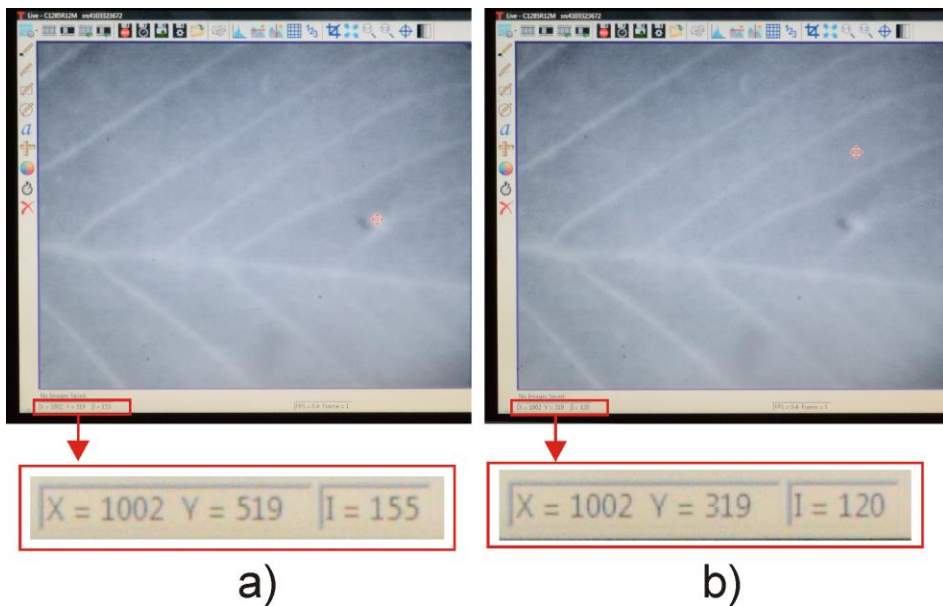


Fig.7 Image processing of the nut leaf recorded through the interference filter of 560 nm

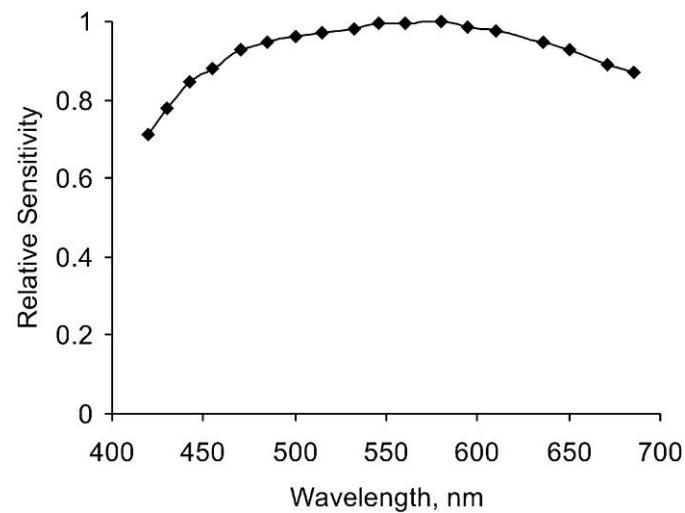


Fig.8 The relative sensitivity of the monochrome digital camera CCD1545M ThorLabs

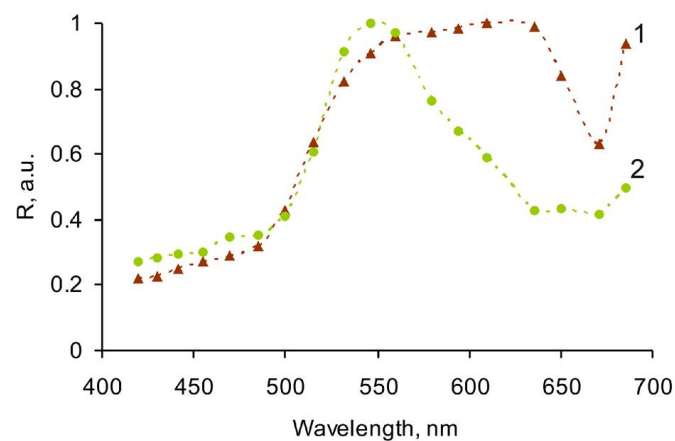


Fig.9. Relative spectral dependences of reflectance of the nut leaf: 1) Infected by parasitic mite *Eriophyes tristriatus*, 2) non-infected area

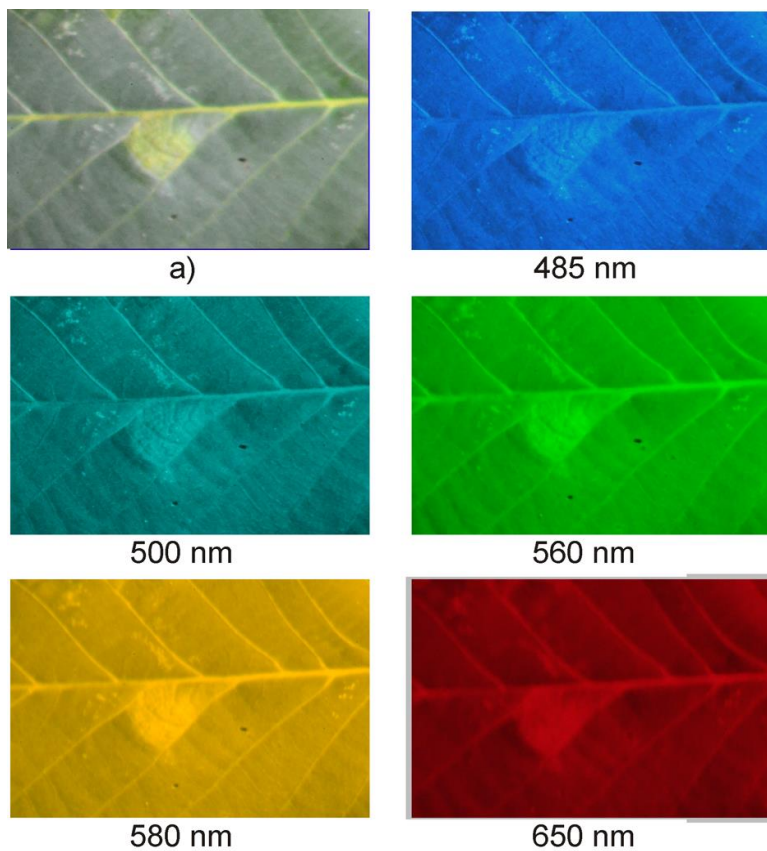


Fig.10 Images of the nut leaf infected by the parasitic fungus *Microstroma juglandis* obtained from the distance of 15 m

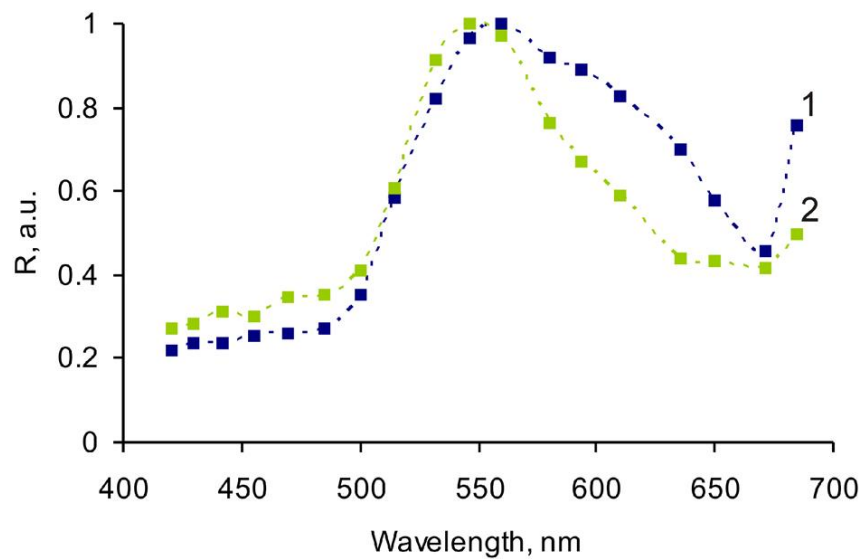


Fig.9 Relative spectral dependences of the reflectance of the nut leaf: 1) infected by *Microstroma juglandis*, 2) non-infected area



a)



c)



b)



d)

Fig.11 Nut leaves infected by *Eriophyes tristriatus* (a - at the beginning of May, b - at the beginning of October) and *Microstroma juglandis* (c - at the beginning of May, d - at the beginning of October)

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