CLAIMS

1. A method for the microbiological analysis of a support containing microorganisms marked by a fluorophore agent, said agent absorbing light energy on contact with said microorganisms with an absorption spectrum having a crest at a predetermined absorption wavelength (λ_2) and releasing that energy by emitting fluorescent light with an emission spectrum having a crest at a predetermined emission wavelength (λ_3) distinct from said absorption wavelength (λ_2), said method comprising illuminating said support with excitation light in order for said marked microorganisms to emit, in response to said excitation light, light with said emission spectrum; wherein the spectrum of said excitation light comprises a crest at a predetermined excitation wavelength (λ_1) distinct from said absorption (λ_2) and said emission (λ_3) wavelengths of said fluorophore agent, such that said absorption wavelength (λ_2) is situated between said excitation (λ_1) and emission (λ_3) wavelengths with a predetermined difference between the excitation (λ_1) and absorption (λ_2) wavelengths, by virtue of which the light emitted by said fluorophore agent and that coming from said excitation light is discriminated.

2. The method according to claim 1, wherein said excitation wavelength (λ_1) is shorter than said absorption wavelength (λ_2), itself shorter than said emission wavelength (λ_3).

3. The method according to claim 1, wherein said spectrum (55) of said excitation light comprises a peak (55') of maximum light intensity centered on said excitation wavelength (λ_1).

4. The method according to claim 1, wherein the difference between said excitation (λ_1) and absorption (λ_2) wavelengths is less than the difference between said absorption (λ_2) and emission (λ_3) wavelengths of said fluorophore agent.

5. The method according to claim 1, further comprising viewing siad light emitted by said fluorophore agent through a window provided with a filter that allows the longest wavelengths to pass and of which the cut-off

wavelength is situated between said absorption wavelength (λ_2) and said emission wavelength (λ_3).

6. The method according to claim 1, wherein said support is illuminated with an illuminating member comprising at least one base (21) on which is mounted at least one group (27) of light sources (22), with said sources (22) of that group (27) being regularly spaced from each other to form an illuminating array for said support (41).

7. The method according to claim 6, wherein said illuminating member further comprises two bases (21) inclined relative to each other in the direction of a predetermined location for reception of said support (41) in the device.

8. The method according to claim 7, wherein each said base (21) is inclined by an angle (A) between 40° and 50° relative to said predetermined location for reception of said support (41).

9. The method according to claim 6, wherein said light sources are light emitting diodes (22).

10. The method according to claim 1, wherein said illuminating member comprises a lamp (204) adapted to emit polychromatic light and a filter (234) adapted let pass the smallest wavelengths and of which the cut-off wavelength (λ_c) is situated between said absorption wavelength (λ_2) and said emission wavelength (λ_3).

CLAIMS

1. A device for microbiological analysis of a support (41) configured to contain microorganisms marked by a fluorophore agent, characterized by the agent being configured to absorb light energy, on contact with the microorganisms, with an absorption wavelength (λ_2), and to release that energy by emitting fluorescent light with an emission spectrum (54) having a crest (54^1) at a predetermined emission wavelength (λ_3) distinct from the absorption wavelength (λ_2); the device being provided with illumination means (3) comprising diodes for generating an excitation light and not comprising a narrow band pass filter; these illumination means being configured so as to illuminate the support (41) in order for the marked microorganisms to emit, in response to the excitation light emitted by the illumination means (3), light with the emission spectrum (54); the spectrum (55) of the excitation light coming from the illumination means (3) comprising a crest (55') at a predetermined excitation wavelength (λ_1) distinct from the absorption (λ_2) and emission (λ_3) wavelengths of the fluorophore agent, such that the absorption wavelength (λ_2) is situated between the excitation (λ_1) and emission (λ_3) wavelengths with a predetermined difference between the excitation (λ_1) and absorption (λ_2) wavelengths, by virtue of which it is made easy to discriminate the light emitted by the fluorophore agent from the light coming from the illumination means (3); the excitation wavelength (λ_1) being shorter than the absorption wavelength (λ_2), the absorption wavelength (λ_2) itself being shorter than the emission wavelength (λ_3), the spectrum (55) of the excitation light comprising a peak (55') of maximum light intensity centered on the excitation wavelength (λ_1), the difference between the excitation wavelength (λ_1) and the absorption wavelength (λ_2) being smaller than the difference between the absorption (λ_2) and emission (λ_3) wavelengths of the fluorophore agent; the predetermined difference between the excitation (λ_1) and absorption (λ_2) wavelengths in the emission wavelength (λ_3) being selected so as to have a small overlap between the excitation spectrum (55) and the emission spectrum (54), so as not to cause parasitic interference between light coming from the illumination means and light generated by the fluorophore agent; provided with windows (7, 107) for viewing light emitted by the fluorophore agent, which is provided with filters (6,106) configured to allow the longest wavelengths to pass through and, moreover, selected so that the cutoff wavelength thereof allows light emitted by the fluorophore agent to pass through and stops the shorter wavelength light coming from the diodes.

2. The device according to claim 1, characterized by the illumination means (3) being provided with at least one base fitted with at least one group (27) of diodes (22), the diodes (22) of the group(s) (27) being positioned at regular intervals from each other to form an illumination array with respect to the support (41).

3. The device according to claim 2, characterized by the illumination means (3) being provided with two of the bases (21) inclined relative to one another in the direction of a predetermined location for reception of the support (41) in the device.

4. The device according to claim 3, characterized by each of the bases (21) being inclined at an angle (A) of 40° to 50° relative to the predetermined position for reception of the support (41).

5. A support (41) configured to contain microorganisms marked by a fluorophore agent, and an assembly including the device described in any one of claims 1-4.