

OPTICAL SYSTEM FOR MICROSCOPE, AND MICROSCOPE IN WHICH SAME IS USED

ABSTRACT

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Provided is an optical system for a microscope that is capable of providing an observation image having sufficient contrast and resolution even when a specimen of one micron order is placed in contact with or adjacent to a surface of the optical system, which surface is closest to the object. The optical system for a microscope includes an illumination lens group G11 and an objective optical system. The objective optical system has an objective lens group G12, a first image forming lens group G13, and a second image forming lens group G14, which are disposed in this order from the object side, and satisfies the following conditional expressions. $NA_L \times 2 \leq NA_O \leq NA_L \times 15 \dots$ (1); $0.01 \leq NA_L \leq 0.1 \dots$ (2); and $25 \leq M_O \leq 100 \dots$ (3), where NA_L denotes the numerical aperture of the illumination lens group G11, NA_O denotes the numerical aperture of the objective lens group G12, and M_O denotes the image-formation magnification of the objective lens group G12.

Figure 3