DEVICE AND METHOD FOR EXPOSING A LIGHT-SENSITIVE LAYER

Abstract

The present invention relates to a method for exposing a light-sensitive layer (9) having an optical system (8), at least one light ray (6, 6') being generated in each case by means of at least one light source (7) and pixels (23) of an exposure pattern (24, 24', 24'', 24''') being illuminated by means of at least one micromirror device (1) having a multiplicity of micromirrors (3) with a mirror intensity profile (22, 22', 22'') in each case, characterized in that an overlay of mirror intensity profiles (22, 22', 22'') of adjacent micromirrors (3) to give a pattern intensity profile of the exposure pattern (24, 24', 24'', 24''') takes place as a sum of the mirror intensity profiles (22, 22', 22'') of each illuminated pixel (23) of the exposure pattern (24, 24', 24'', 24''').

Furthermore, the present invention relates to a device for exposing a light-sensitive layer (9) using an optical system (8) having:

– at least one light source (7) for generating at least one light ray (6 , 6‘),
– at least one micromirror device (1) with a multiplicity of micromirrors (3), wherein each micromirror (3) is used for illuminating a pixel (23) of an exposure pattern (24, 24‘, 24“, 24‘“) with a mirror intensity profile (22, 22‘, 22“),

wherein the optical system (8) is constructed in such a manner that an overlay of mirror intensity profiles (22, 22‘, 22“) of adjacent micromirrors (3) to form a pattern intensity profile of the exposure pattern (24, 24‘, 24“, 24‘“) takes place as a sum of the mirror intensity profiles (22, 22‘, 22“) of each illuminated pixel (23) of the exposure pattern (24, 24‘, 24“, 24‘“).

Figure 1.