Claims

1. A ~~M~~method for setting a constant wavelength of an LED, the method comprising:
– actuating ~~(100)~~ the LED using a pre-set current;
– measuring ~~(101)~~ an actual temperature of a control unit arranged in the direct vicinity of the actuated ~~(100)~~ LED; wherein merely passive components are arranged between LED and the control unit;
– providing ~~(102)~~ an empirically determined wavelength variation of the LED as a function of a temperature of the LED; and
– adapting ~~(103)~~ the pre-set current as a function of the actual temperature and the empirically determined wavelength variation to set (104) the constant wavelength of the LED, wherein the pre-set current is adapted ~~(103)~~ using a stored error function and the error function determines the temperature of the LED as a function of the actual temperature of the control unit.

2. The ~~M~~method according to claim 1, wherein the method is carried out for each of a red-, blue-, green- and white-emitting LED.

3. The ~~M~~method according to ~~either~~ claim 1 ~~or claim 2~~, wherein the method is carried out iteratively in such a way that the pre-set current is adapted ~~(103)~~ substantially every two seconds.

4. The ~~M~~method according to ~~any of the preceding~~ claim~~s~~ 1, wherein the pre-set current specifies a current pulse of a pulse-width modulation.

5. The ~~M~~method according to claim 1, wherein the error function provides a compensation value which evens out the wavelength variation of the LED.

6. The ~~M~~method according to ~~any of the preceding~~ claim~~s~~5, wherein the compensation value takes the form of a compensation factor and/or compensation summand.

7. The Mmethod according to ~~any of the preceding~~ claim~~s~~1, wherein the pre-set current is adapted ~~(103)~~ when an actual wavelength deviates from the target wavelength by more than a threshold.

8. The Mmethod according to ~~any of the preceding~~ claim~~s~~1, wherein the empirically determined wavelength variation specifies a characteristic of the LED.

9. The Mmethod according to ~~any of the preceding~~ claim~~s~~1, wherein the direct vicinity is less than one millimetre.

10. The Mmethod according to ~~any of the preceding~~ claim~~s~~1, wherein the direct vicinity is set using the thickness of an adhesive layer, a silicone layer, a polymer layer, a thermal conduction layer, an aluminium layer and/or a copper layer.

11. The Mmethod according to ~~any of the preceding~~ claim~~s~~1, wherein the control unit is provided as a controller, controller chip, logic circuit, logic gate or microcontroller.

12. A Ssystem arrangement for setting a constant wavelength of an LED, ~~having~~comprising:
– a control unit set up to actuate ~~(100)~~ the LED using a pre-set current;
– at least one measurement sensor set up to measure ~~(101)~~ an actual temperature of the control unit arranged in the direct vicinity of the actuated ~~(100)~~ LED; wherein merely passive components are arranged between the LED and the control unit;
– an interface unit set up to provide ~~(102)~~ an empirically determined wavelength variation of the LED as a function of a temperature of the LED; and
– a compensation interface set up to adapt ~~(103)~~ the pre-set current as a function of the actual temperature and the empirically determined wavelength variation to set ~~(104)~~ the constant wavelength of the LED, wherein the pre-set current is adapted ~~(103)~~ using a stored error function and the error function determines the temperature of the LED as a function of the actual temperature of the control unit.

13. A Ccomputer program product comprising control commands which carry out the method according to ~~any of~~ claim~~s~~ 1 ~~to 11~~ when executed on a computer.