CLAIMS

1. A process of production of an organic light-emitting diode which includes an emitter layer as well as an electrically conductive or electrically semiconductive layer consisting of photochemically crosslinkable material deposited on top of a first mirror layer of a lossy optical resonator, wherein the layer thickness of the electrically conductive or electrically semiconductive layer is adjusted by means of a photolithographical process, and wherein a second mirror layer of the lossy optical resonator is deposited on top of these layers, wherein the photolithographical process is performed by locating a gray-scale mask having at least three varying light permeability in different locations on top of the photochemically crosslinkable material, exposing the photochemically crosslinkable material through the gray-scale mask and subsequently removing the non-crosslinked areas.

2. The process according to claim 1 wherein the emitter layer is capable of emitting white light.

3. The process according to claim 2 wherein the emitter layer is composed of a material having oxetane as a reactive group.

4. The process according to claim 1 wherein the emitter layer is an RGB copolymer, a blend of red, green and blue-emitting components or comprises a layer system comprising layers emitting red, green and blue.

5. The process according to claim 1 wherein mirror layers of the optical resonator consist of silver, aluminum or gold or are designed as Bragg mirrors.

6. The process according to claim 1, wherein the thickness of the electrically conductive or electrically semiconductive layer changes along a wedge-like or staircase-like shape.

7. The process especially according to claim 1, having a layer within the lossy optical resonator, wherein said layer comprises more than three different layer thicknesses, preferably at least six, most preferably ten different layer thicknesses.

8. The process according to claim 1, wherein the thickness of the electrically conductive or electrically semiconductive continuously increases and/or decreases.

9. A process of production of an organic light-emitting diode according to claim 1, comprising the steps of

depositing an electron or hole conducting layer (**4**, **20**, **24**) composed of photochemically crosslinkable material on top of a mirror layer (**2**) of a lossy optical resonator,

adjusting thickness of the electron or hole conducting layer (**4**, **20**, **24**) by a photolithographical process to vary the layer thickness,

depositing an emitter layer (**5**) on top of the electron or hole conducting layer (**4**, **20**, **24**), and

depositing a second mirror layer (**7**) of the lossy optical resonator on top of the emitter (**5**) and electron or hole conducting (**4**, **20**, **24**) layers.

10. The process according to claim 9 wherein the lithographical process is performed by locating a gray-scale mask on top of the photochemically crosslinkable material, exposing the photochemically crosslinkable material through the gray-scale mask and subsequently removing the non-crosslinked areas.

11. The process according to claim 10 wherein the gray-scale mask has at least 3 varying light permeability in different locations.

12. The process according to claim 2 wherein the emitter layer is an RGB copolymer, a blend of red, green and blue-emitting components or comprises a layer system comprising layers emitting red, green and blue.

13. The process according to claim 1, wherein the thickness of the electrically conductive or electrically semiconductive gradually changes in wedge-like shape.