Claims

1. An implantable component ~~(1)~~ comprising a composite ~~(6)~~ made of at least two layers ~~(2) and (3)~~ that are connected to each other, whereby
   a. the first layer ~~(2)~~ comprises at least one hole ~~(7)~~;
   b. the second layer ~~(3)~~ comprises a thickness in the range of 1 to 50 µm; and
   whereby the first layer ~~(2)~~ and the second layer ~~(3)~~ each comprise at least one metal; and
   whereby the composition of the first layer ~~(2)~~ differs from the composition of the second layer ~~(3)~~; and
   whereby the first layer and the second layer form a membrane for measuring a pressure difference; and
   whereby the materials of the first layer and the second layer are biocompatible; and
   whereby the first layer and the second layer are connected by means of cold welding or roll cladding; and
   whereby the at least one hole of the first layer is formed by a dissolution process or an oxidation process.

2. Component ~~(1)~~ according to claim 1, whereby the second layer ~~(3)~~ comprises a thickness in the range of 2.0 up to 25 µm.

3. Component ~~(1)~~ according to any one of the preceding claims, whereby the first layer ~~(3)~~ comprises a thickness in the range of 50 up to 500 µm.

~~4. Component (1) according to any one of the preceding claims, whereby the first layer (2) and the second layer (3) are connected by means of cold welding or roll cladding.~~

~~5. Component (1) according to any one of the preceding claims, whereby the materials of the first layer (2) and the second layer (3) are biocompatible.~~

~~6.~~4. Component ~~(1)~~ according to any one of the preceding claims, whereby the at least one metal of the first layer ~~(2)~~ is selected from the group consisting of silver, gold, platinum, titanium, iridium, niobium, tantalum, tungsten, palladium, copper, iron, a steel or a combination of at least two thereof.

~~7.~~5. Component ~~(1)~~ according to any one of the preceding claims, whereby the at least one metal of the second layer ~~(3)~~ is selected from the group consisting of

silver, gold, platinum, titanium, iridium, niobium, tantalum, tungsten, palladium, a steel, or a combination of at least two thereof.

~~8.~~6. Component ~~(1)~~ according to any one of the preceding claims, whereby the metal or metals of the first layer ~~(2)~~ is or are different from the metal or metals of the second layer ~~(3)~~.

~~9.~~7. Component ~~(1)~~ according to any one of the preceding claims, whereby a diffusion layer ~~(4)~~ is arranged as connection between the first layer ~~(2)~~ and the second layer ~~(3)~~.

~~10.~~8. Component ~~(1)~~ according to any one of the preceding claims, whereby a third layer ~~(8)~~ is arranged on the side of the first layer ~~(2)~~ facing away from the second layer ~~(3)~~ and comprises at least one hole ~~(9)~~, whereby each hole ~~(7)~~ of the first layer has a hole ~~(9)~~ of the third layer superimposed on it.

~~11.~~9. A method for producing an implantable component ~~(1)~~ comprising a composite ~~(6)~~ made of at least two layers ~~(2) and (3)~~ that are connected to each other,

whereby the second layer ~~(3)~~ comprises a thickness in the range of 1 to 50 µm;

whereby the first layer ~~(2)~~ and the second layer ~~(3)~~ each comprise at least one metal;

~~whereby the third layer comprises a thickness of at least 1 µm;~~

whereby the composition of the first layer ~~(2)~~ differs from the composition of the second layer ~~(3)~~;

whereby the first layer and the second layer form a membrane for measuring a pressure difference;

comprising at least the following process steps:

i. providing, superimposing, and connecting the first layer ~~(2)~~ and a second layer ~~(3)~~ while forming a composite ~~(6)~~, whereby the

connecting of the first layer and second layer to form a composite is effected through cold welding or cladding;

ii. applying a coating SL ~~(5)~~ onto a part of the first layer ~~(2)~~;

iii. contacting parts of the first layer ~~(2)~~ not provided with the coating to a liquid CA;

whereby the contacting causes at least a part of the first layer ~~(2)~~ to be removed and at least one hole ~~(7)~~ to be formed in the first layer;

whereby the component is being obtained.

~~12.~~10. Method for producing a component ~~(1)~~ according to claim 9~~9~~11~~~~, whereby at least a part of the first layer ~~(2)~~ is removed by mechanical or electrical processing after step i. and before step ii.

~~13.~~11. Method for producing a component ~~(1)~~ according to any one of the claims 9~~9~~11~~~~ or 10~~10~~12~~~~, whereby the coating SL ~~(5)~~ is resistant to the liquid CA, at least during step iii.

~~14.~~12. A method for producing an implantable component ~~(1)~~ comprising a composite ~~(6)~~ made of at least three layers, a first layer, a second layer and a third layer ~~(2), (3), and (8)~~ that are connected to each other,

whereby the second layer ~~(3)~~ comprises a thickness in the range of 1 to 50 µm;

whereby the first layer ~~(2)~~, the second layer ~~(3)~~, and the third layer ~~(8)~~ each comprise at least one metal;

whereby the third layer ~~(8)~~ comprises a thickness of at least 1 µm;

whereby the composition of the first layer ~~(2)~~ differs from the composition of the second layer ~~(3)~~; and

whereby the composition of the third layer ~~(8)~~ differs from the composition of the first layer ~~(2)~~;

whereby the first layer and the second layer form a membrane for measuring a pressure difference;

comprising at least the following process steps:

i) providing, superimposing, and connecting the third layer ~~(8)~~, first layer ~~(2)~~, and second layer ~~(3)~~ while forming a composite ~~(6)~~;

ii) removing a part of the third layer ~~(8)~~;

iii) contacting parts of the first layer ~~(2)~~ not provided with the third layer ~~(8)~~ to a liquid CA;

whereby the contacting causes at least a part of the first layer ~~(2)~~ to be removed and at least one hole ~~(7)~~ to be formed in the first layer;

whereby the component is being obtained.

~~15.~~13. Component ~~(1)~~ comprising a composite ~~(6)~~ that can be obtained according to a method according to any one of the claims 9~~9~~11 ~~to~~ 12~~1~~214~~.~~.

~~16.~~14. Component ~~(1)~~ comprising a composite ~~(6)~~ according to any one of the claims 1 to 8~~8~~10 that can be obtained according to a method according to any one of the claims 9~~9~~11 ~~to~~ 12~~1~~214~~.~~.

~~17.~~15. Use of a component ~~(1)~~ comprising a composite ~~(6)~~ according to any one of the claims 1 to 8~~8~~10, 13~~1~~315 ~~or~~ 14~~1~~416 ~~in~~ a device ~~(10)~~ or for producing a device ~~(10)~~ for use in a living body.