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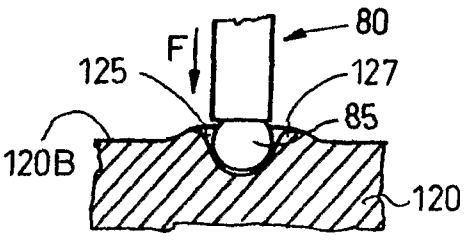
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(54) Title: METHOD OF FORMING A SEALED CHANNEL OF A MICROFLUIDIC REACTOR AND A MICROFLUIDIC REACTOR COMPRISING SUCH CHANNEL



(57) Abstract: In a method according to the invention for forming a sealed channel (125) in the surface of a sheet made of a material with certain extent of plasticity, the machining surface of a tool with a rolling machining surface is brought into contact with a first point of the channel (125) to be formed in the surface of the sheet constituting a reactor block. Next, said machining surface is pressed onto the surface of the sheet with a compressive force (F) required to achieve the depth of the channel (125) to be formed, whereby the plastic material is squeezed out and becomes raised from the sheet surface on the peripheries of the depression being formed. After this, while maintaining the compressive force (F), by displacing said machining surface along the centerline of the channel (125) over the sheet surface it is rolled from the first point of the channel (125) to be formed to a second point thereof, whereby the channel (125) is machined in the material of the sheet and sealing edges (127) are created on the peripheries of the channel (125) from the material squeezed out and become raised. After creating said sealing edges (127), a closing member bearing against the sealing edges (127) is arranged at the surface of the sheet provided with the channel (125) and the sealing edges (127), and then said closing member is pressed onto the sheet by a compressive force required to deform said sealing edges (127) and is fixed in the position obtained, whereby a sealed channel (125) running between the first and second points is formed within the reactor block.

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