



ISTITUTO ITALIANO  
DI TECNOLOGIA

## TITLE

Method for making an array of micro-needles

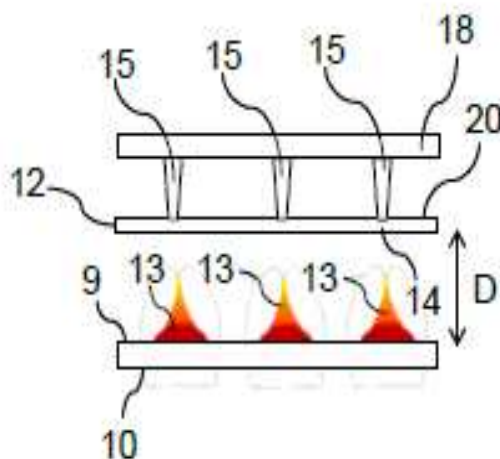
## INVENTORS

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## DESCRIPTION

There is described a method for making an array of micro-needles, comprising the steps of:

- depositing a plurality of drops of a liquid substance comprising a polymer on a surface of a starting substrate;
- positioning a pyroelectric substrate at a certain distance from the starting substrate in such a way that the drops deposited are positioned between said surface of the starting substrate and a surface of the pyroelectric substrate;
- varying the temperature of the pyroelectric substrate or a part thereof to induce on said surface of the pyroelectric substrate a charge density such that starting from the drops deposited, under the effect of an electrodynamic force, respective cones are formed having a tip facing towards the pyroelectric substrate;
- determining a consolidation of the cones, to form said micro-needles, preventing the tip of said cones from contacting said surfaces of the pyroelectric substrate.



## APPLICATIONS

Non-invasive medical method, drug delivery, biotechnology applications, controlled delivery

## KEYWORDS

Biodegradable, micro-needle, needle bracelet, drug, flexible strip

## BIBLIOGRAPHIC DATA

Metodo Per La Produzione Di Una Schiera Di Micro-Aghi

Application Number

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Applicants

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