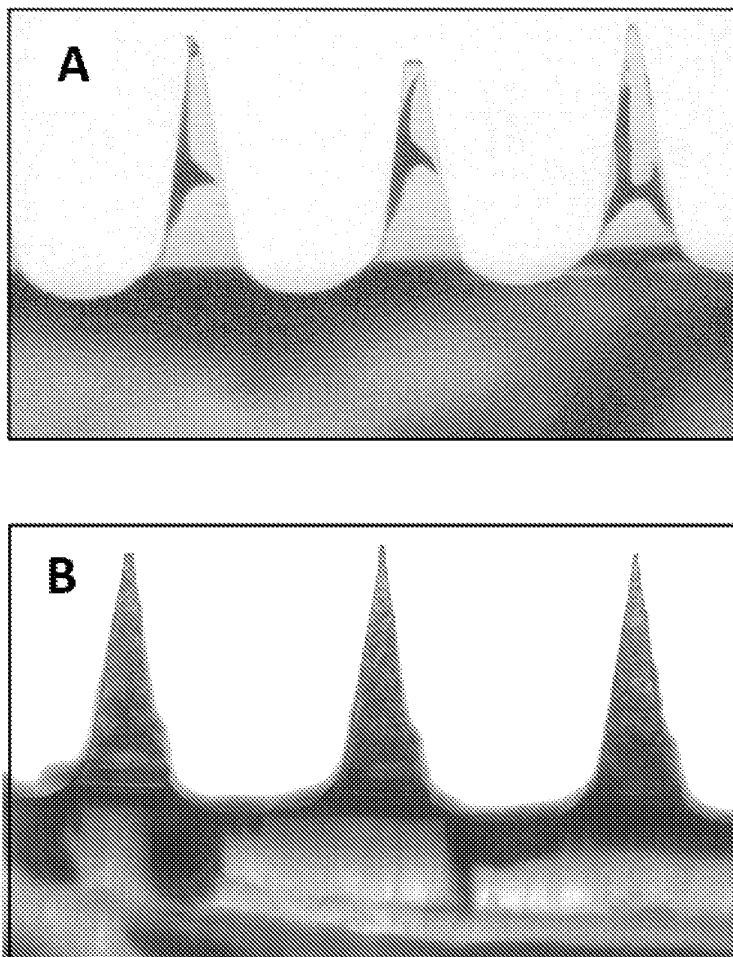


**FIG. 1**



**FIG. 2**

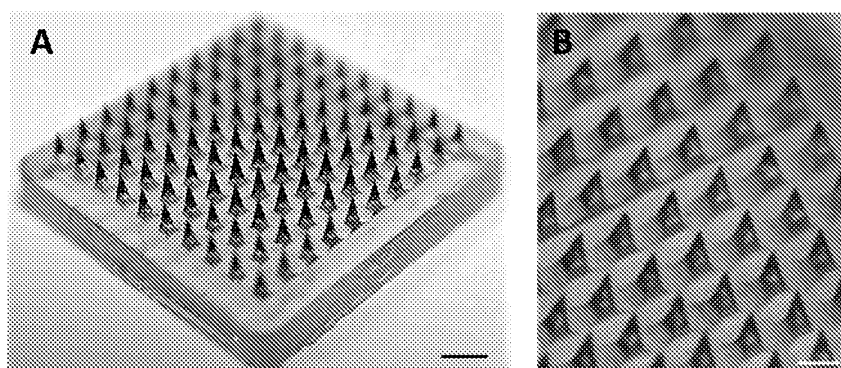


FIG. 2 (Continued)

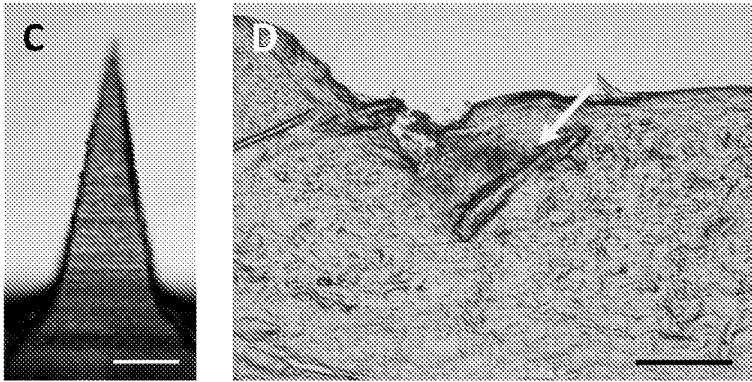


FIG. 3

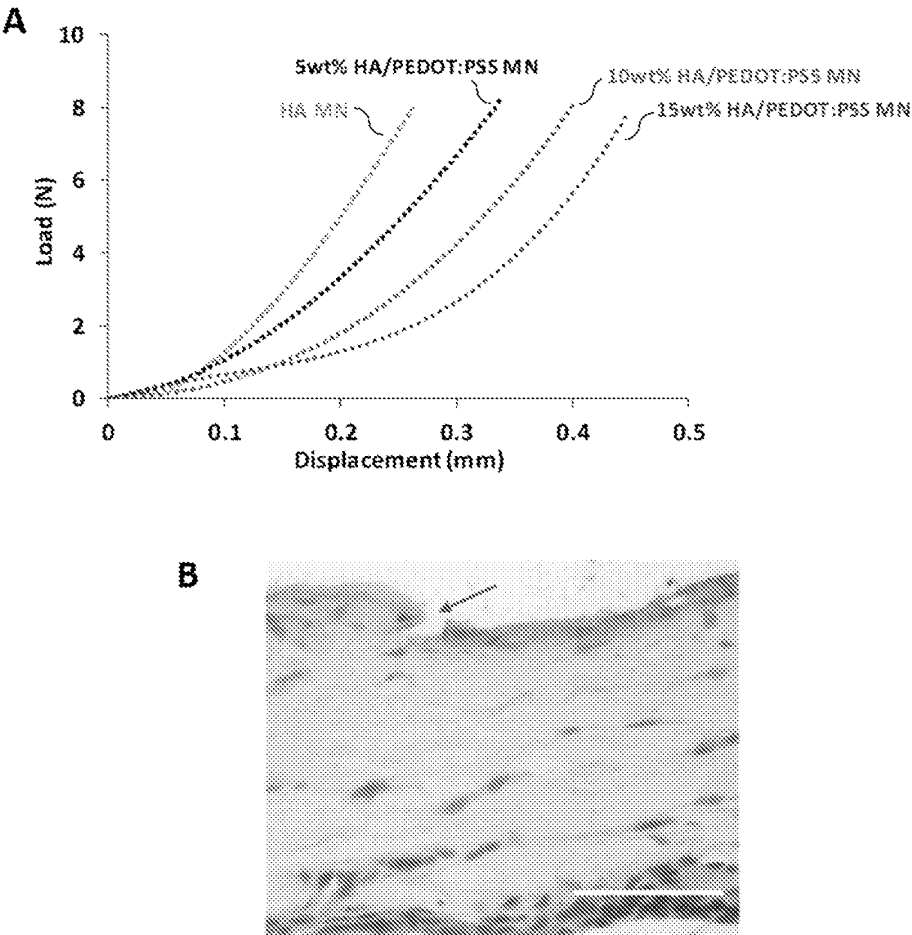


FIG. 3 (Continued)

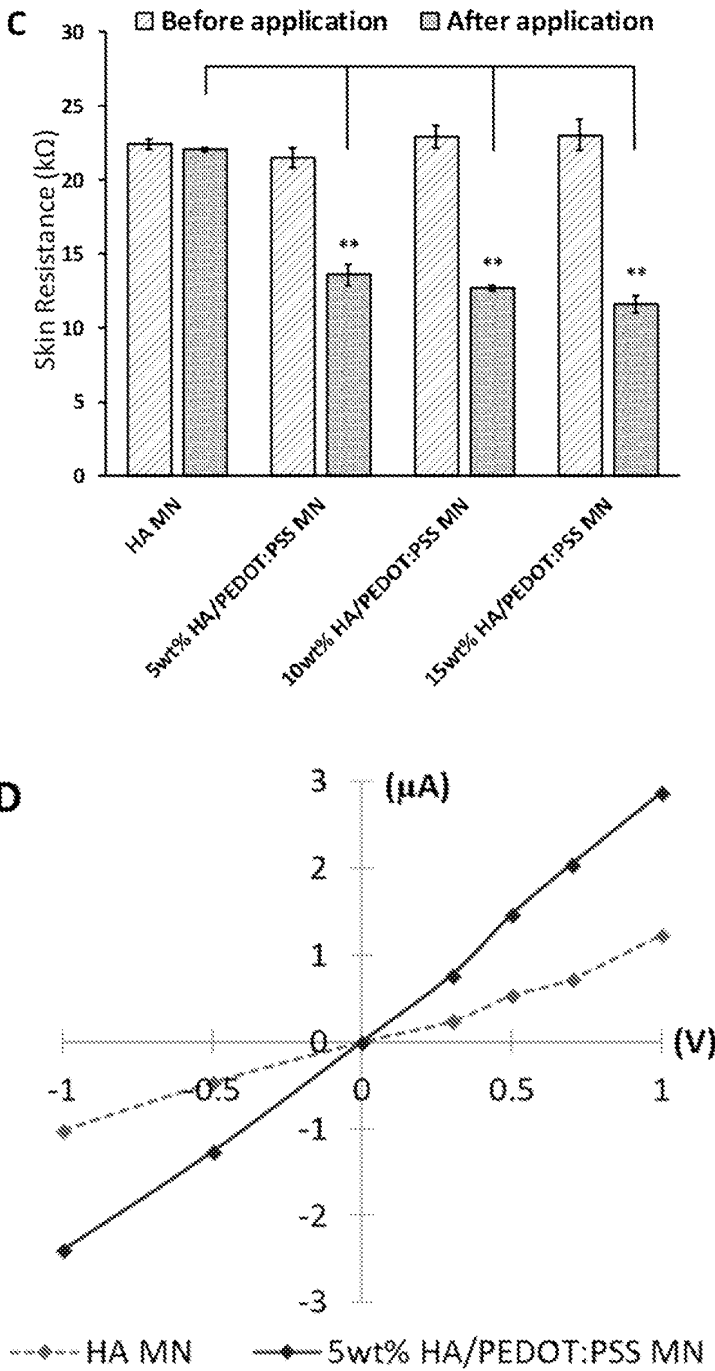


FIG. 3 (Continued)

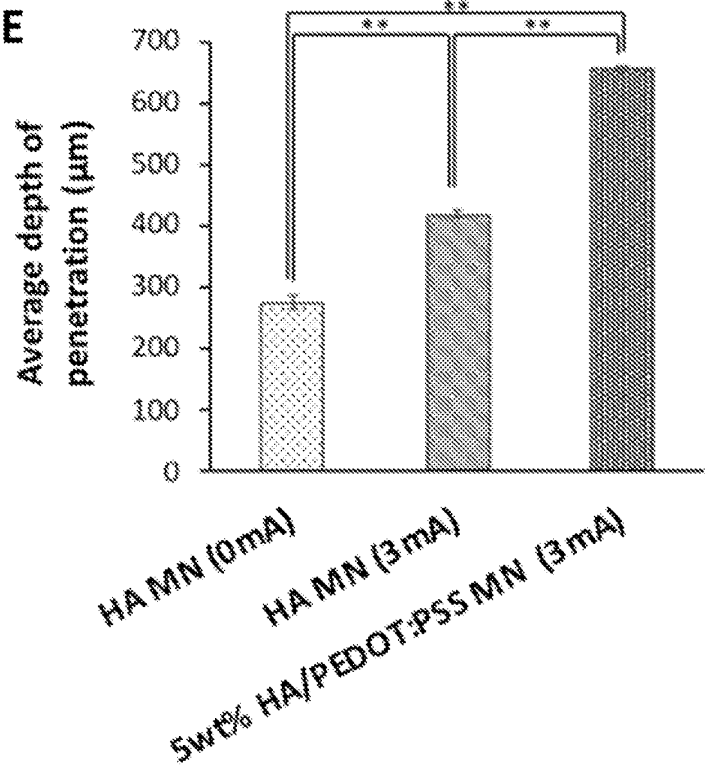
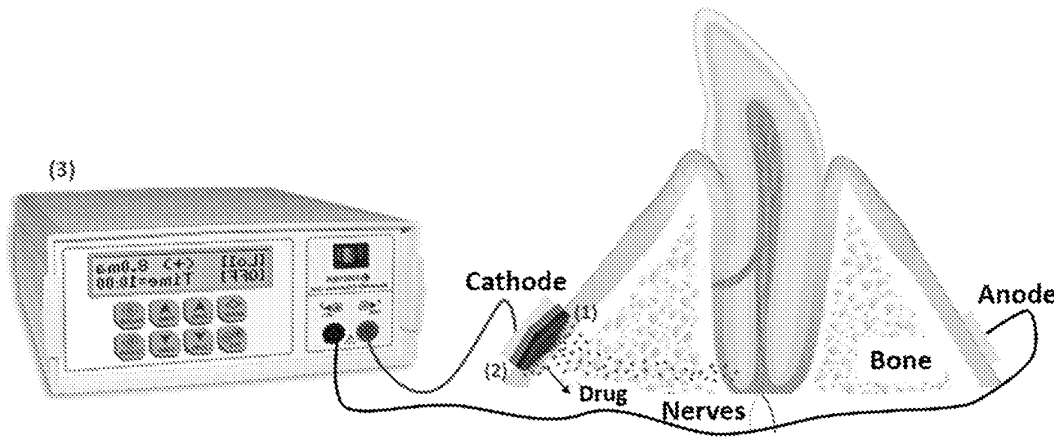
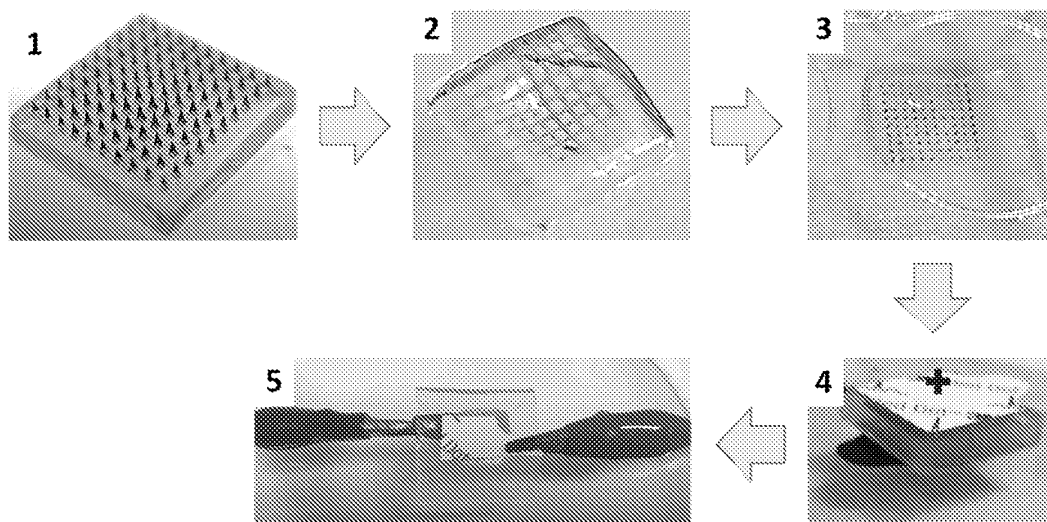


FIG. 4



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**FIG. 5**



**FIG. 6**

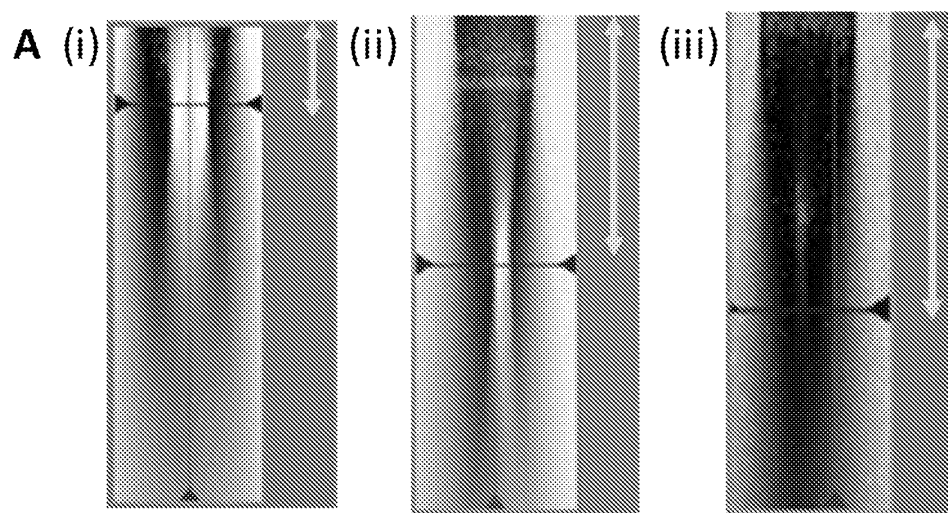
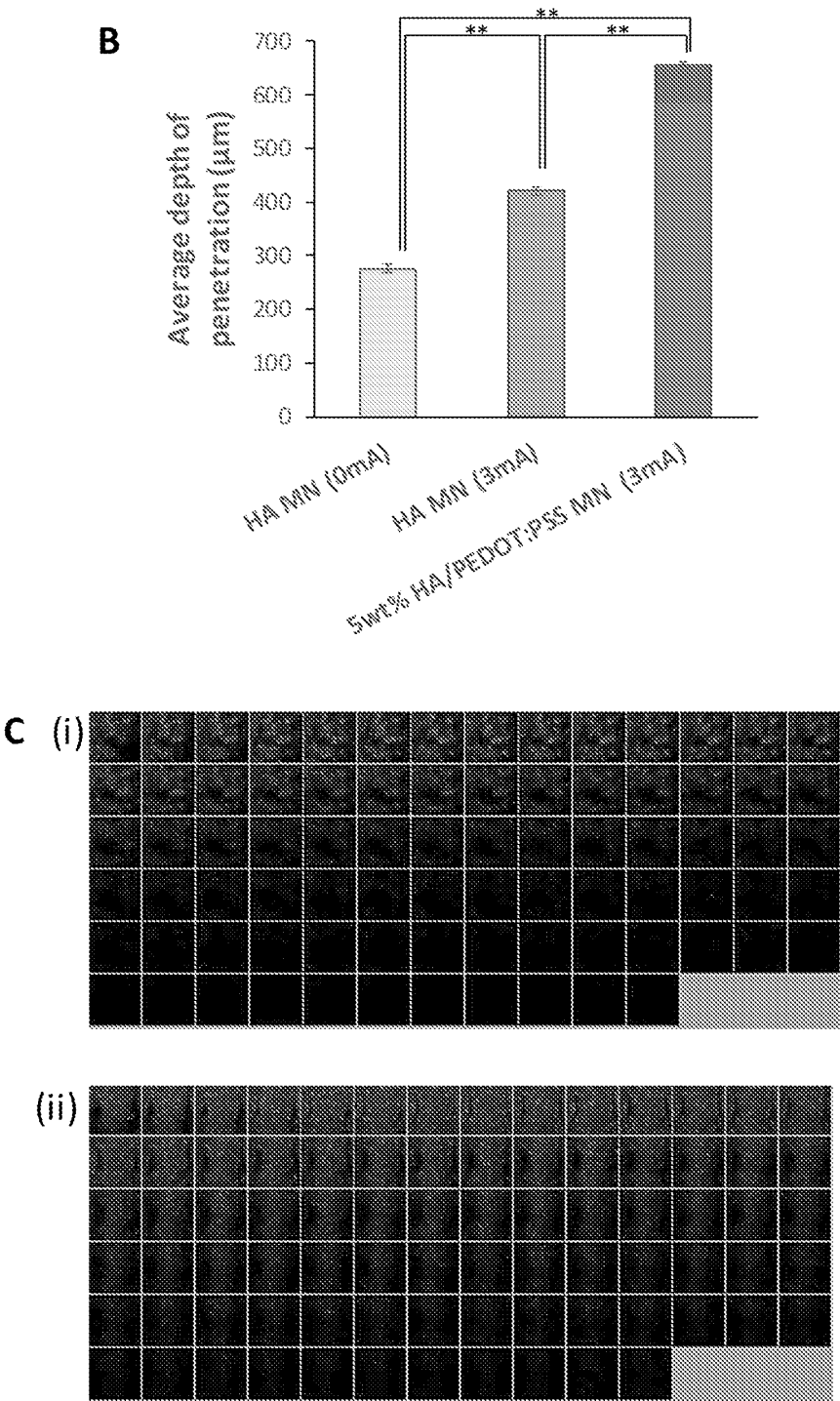


FIG. 6 (Continued)



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FIG. 7

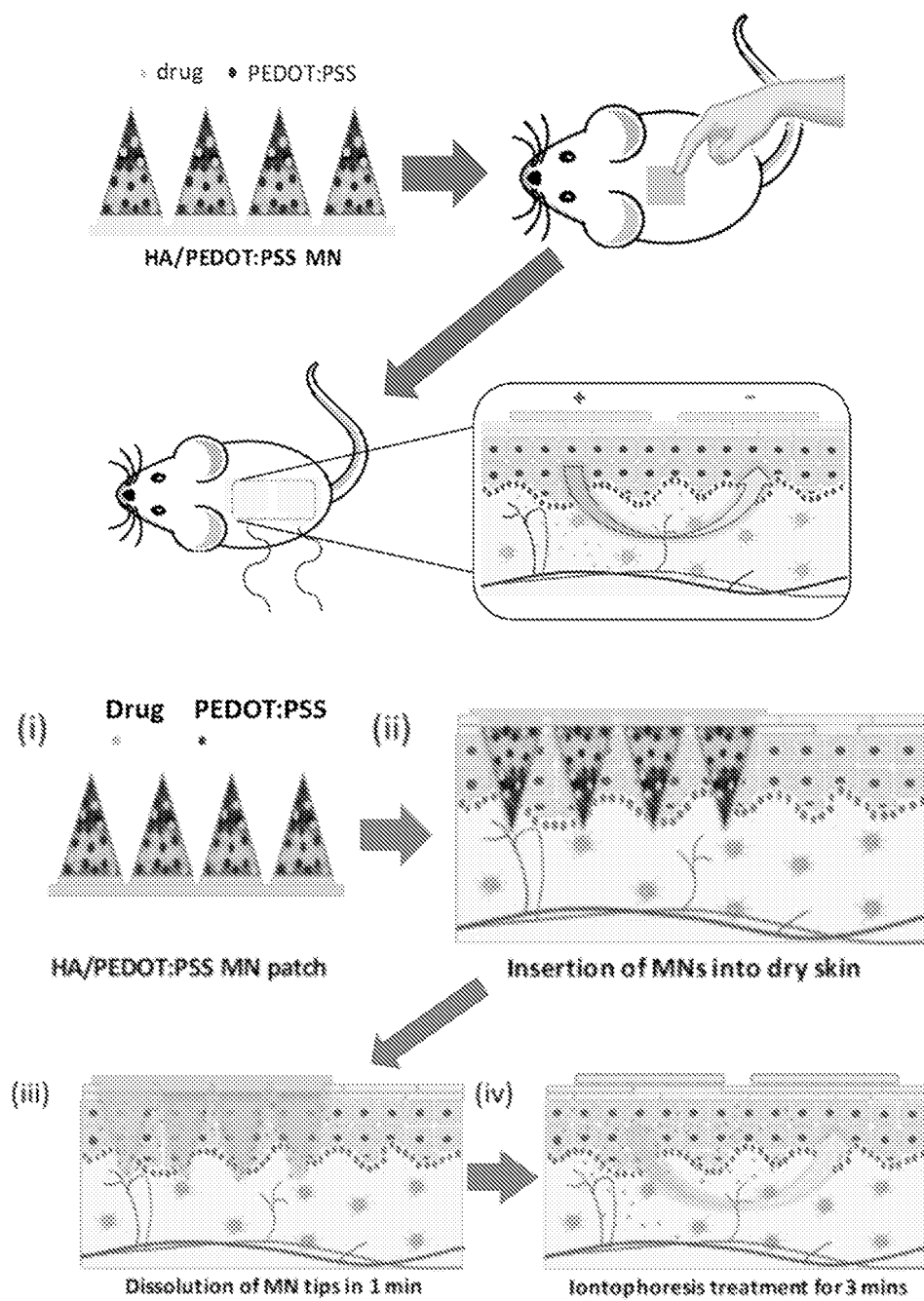
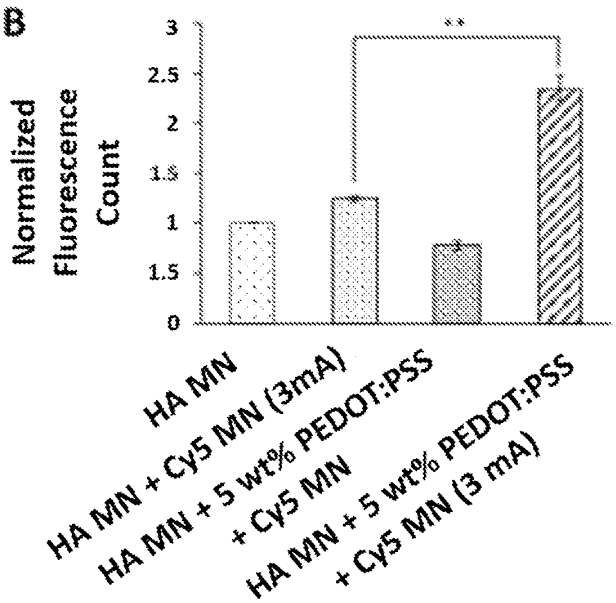
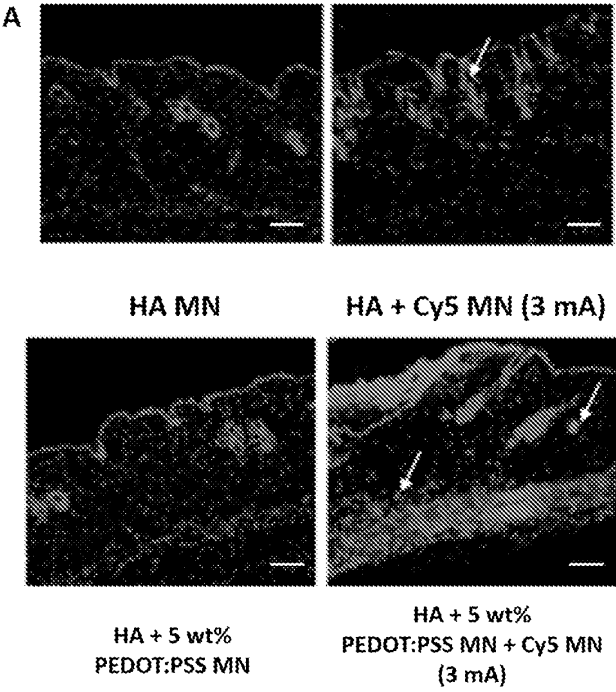
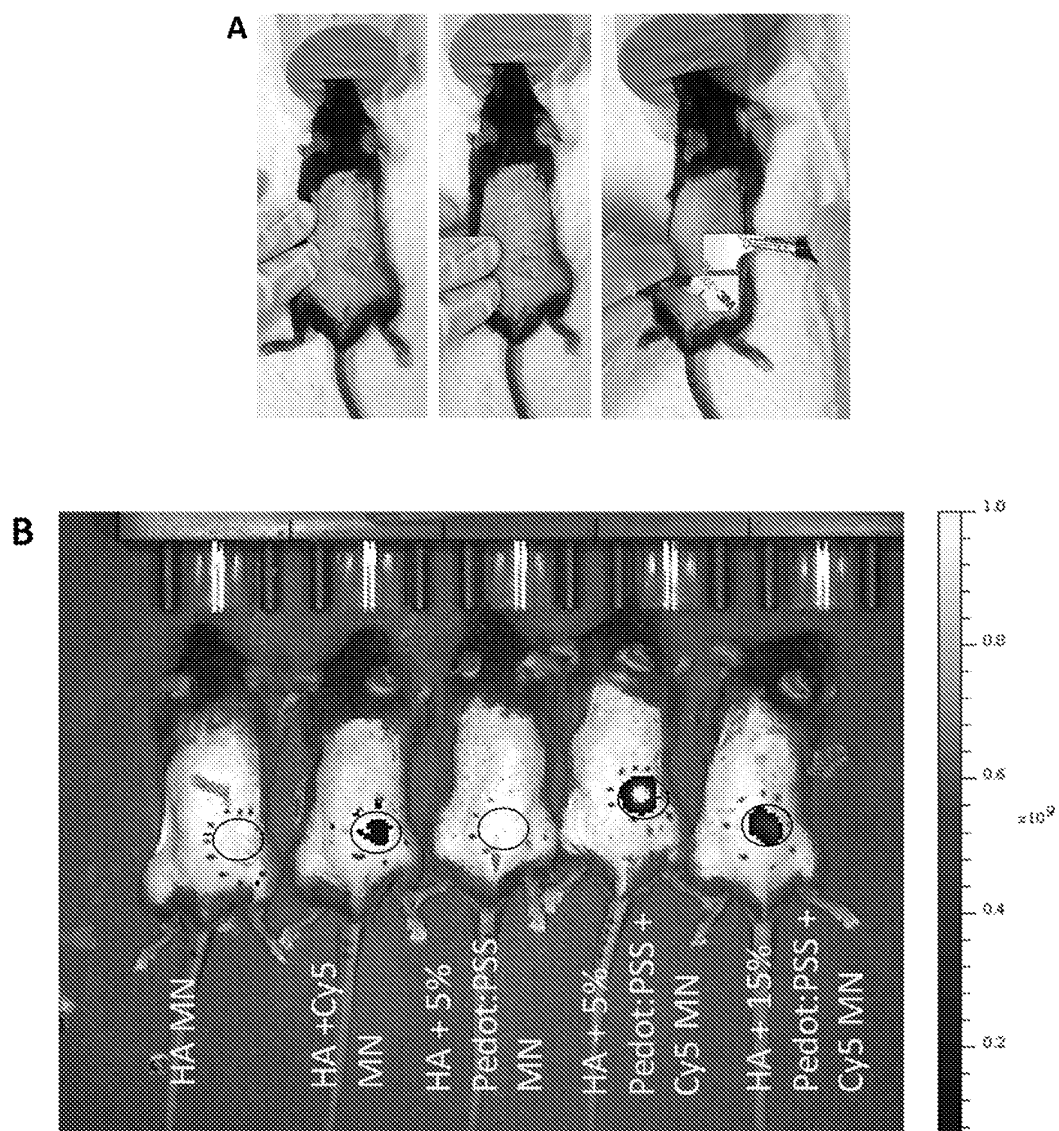


FIG. 8



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FIG. 9



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FIG. 9 (Continued)

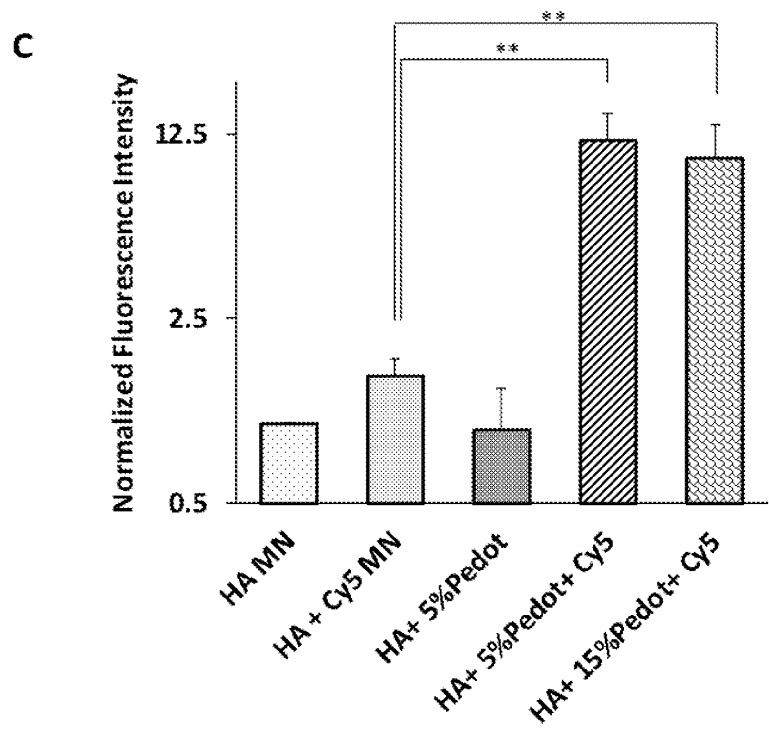
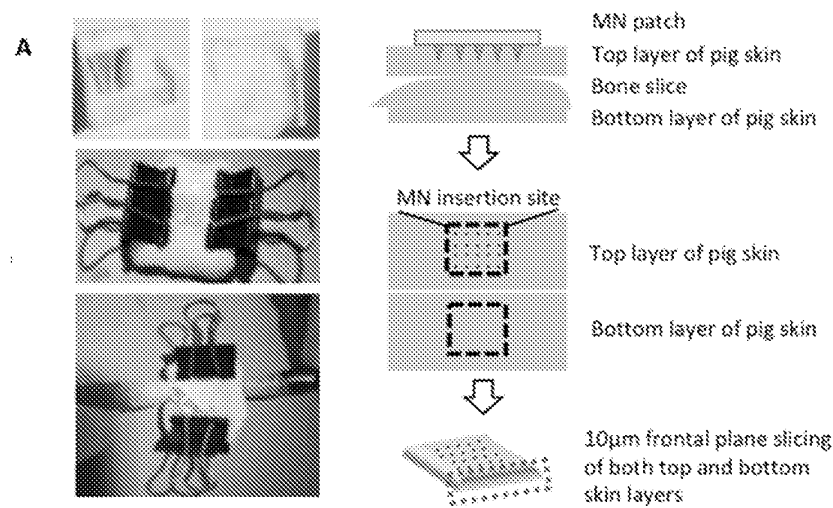
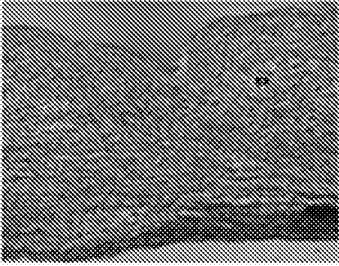
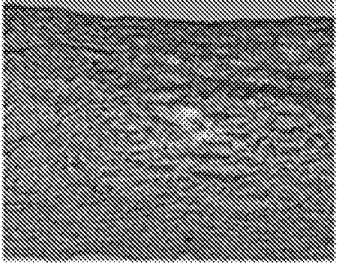
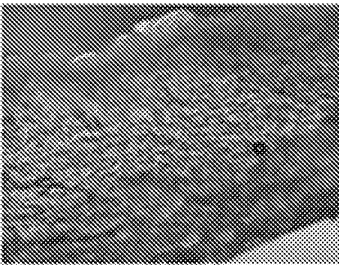
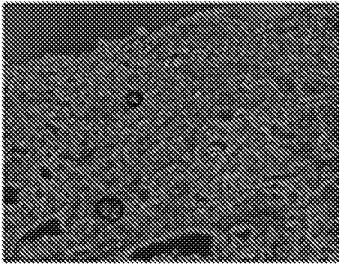
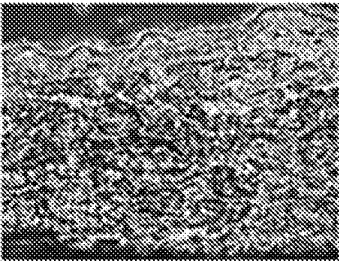
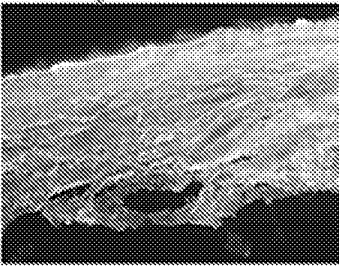
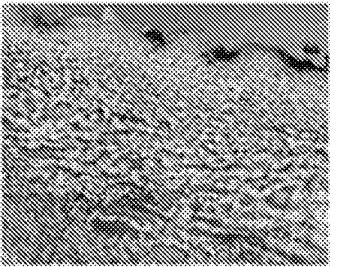
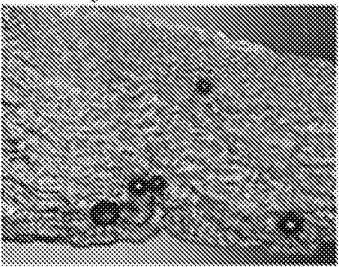


FIG. 10

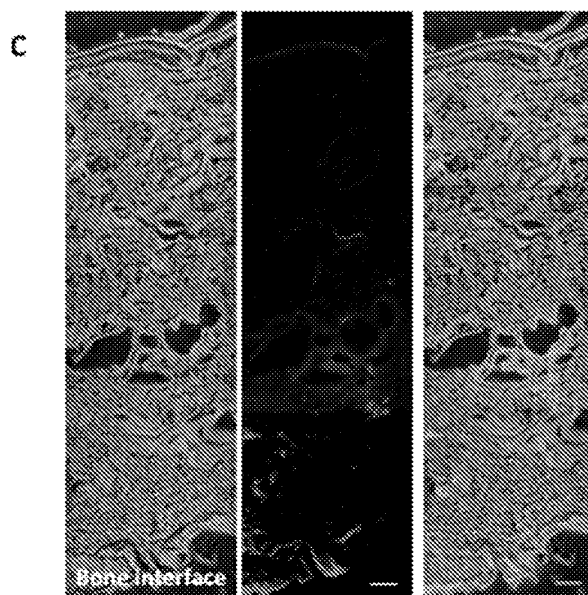
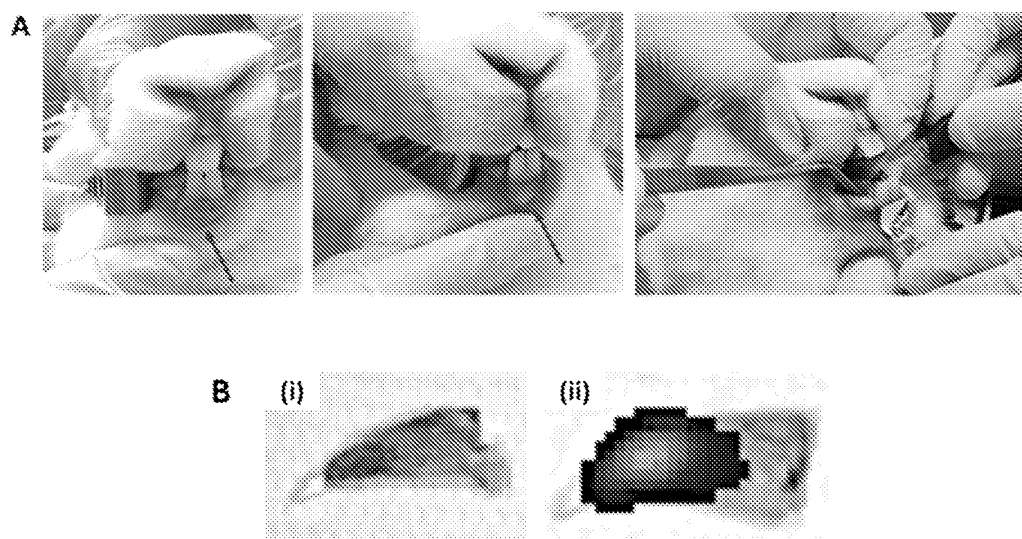


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**FIG. 10 (Continued)**

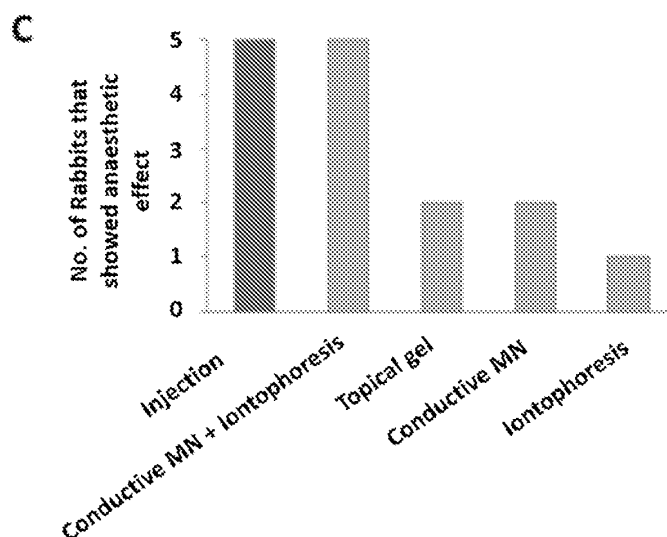
| <b>B</b> | Test Group                                                                | Top Layer                                                                                                 | Bottom Layer                                                                                                           |
|----------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
|          | 1) HA MN<br><br><u>Control (No dye,<br/>no iontophoresis)</u>             | No fluorescence<br>      | No fluorescence<br>                  |
|          | 2) HA MN + Cy5<br><br><u>No iontophoresis</u>                             | Shows fluorescence<br>  | No fluorescence<br>                 |
|          | 3) HA MN + Cy5<br><br><u>Iontophoresis:<br/>5 mins, 10mA</u>              | Shows fluorescence<br> | Shows slight fluorescence<br>      |
|          | 4) HA/PEDOT:PSS<br>MN + Cy5<br><br><u>Iontophoresis:<br/>5 mins, 10mA</u> | Shows fluorescence<br> | Shows significant fluorescence<br> |

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**FIG. 10 (Continued)****FIG. 11**

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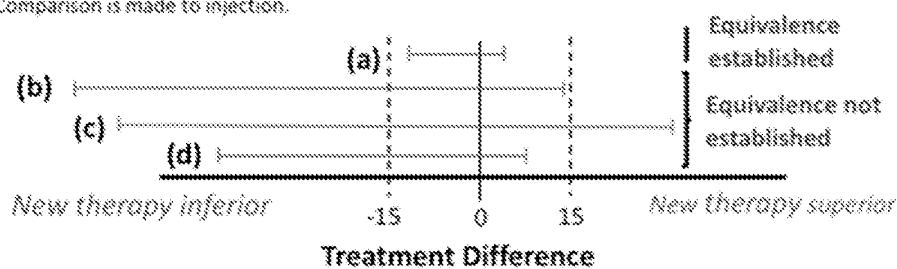
FIG. 11 (Continued)



**D**

| Rabbit                   | Duration of anaesthetic effect (minutes) |                               |             |               |               |
|--------------------------|------------------------------------------|-------------------------------|-------------|---------------|---------------|
|                          | Injection                                | Conductive MN + Iontophoresis | Topical gel | Conductive MN | Iontophoresis |
| 1                        | 30                                       | 30                            | 45          | 3             | 0             |
| 2                        | 20                                       | 17                            | 2.5         | 0             | 5             |
| 3                        | 20                                       | 20                            | 2.5         | 0             | 0             |
| 4                        | 102                                      | 87                            | 0           | 0             | 0             |
| 5                        | 120                                      | 120                           | 120         | 120           | 0             |
| Mean Difference*         |                                          | -3.6                          | 34.3        | -24           | 33.75         |
| Standard Deviation*      |                                          | 6.5                           | 39.3        | 45.4          | 14.36         |
| 95% Confidence Interval* |                                          | -11.67, 4.47                  | -83.0, 14.6 | -80.8, 32.0   | -56.6, -10.8  |

\*Comparison is made to injection.



**FIG. 12**

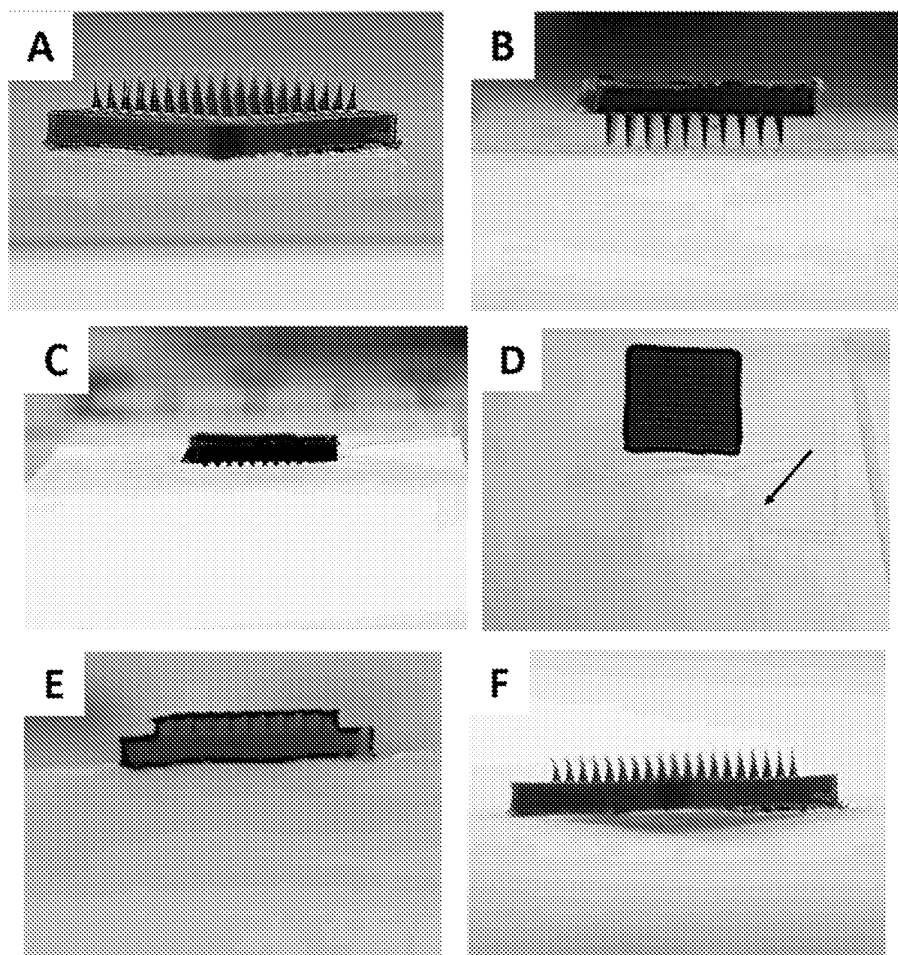


FIG. 13

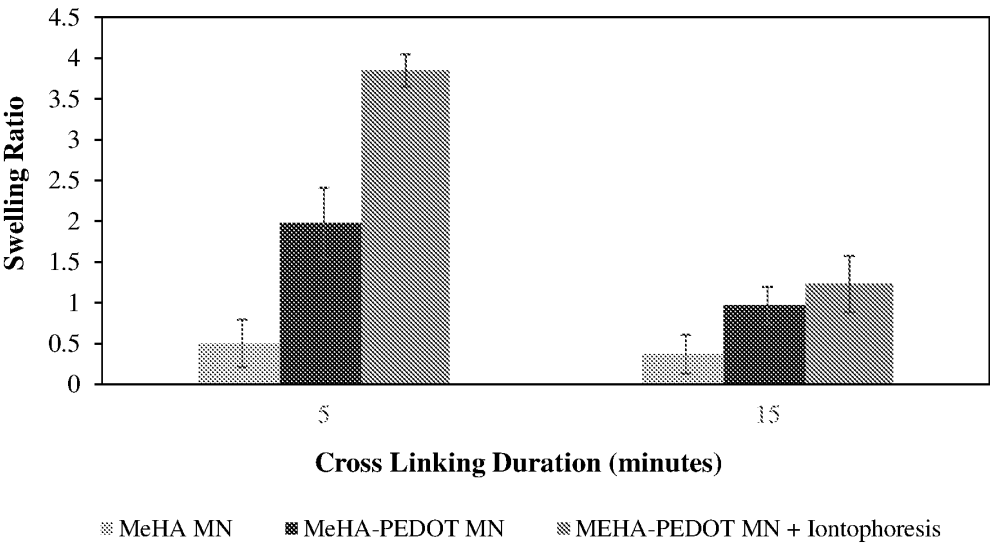
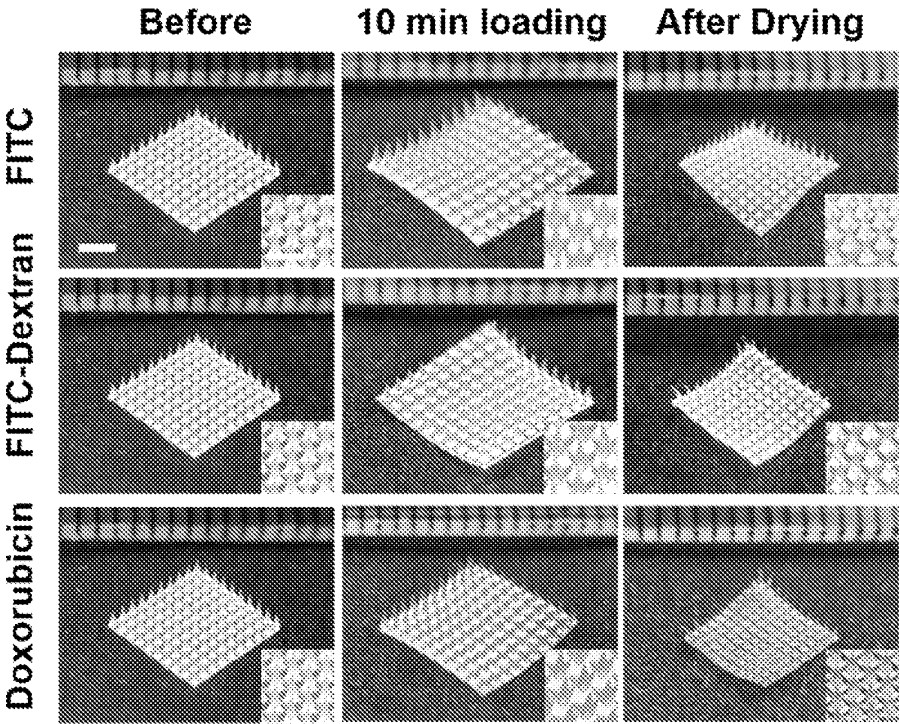
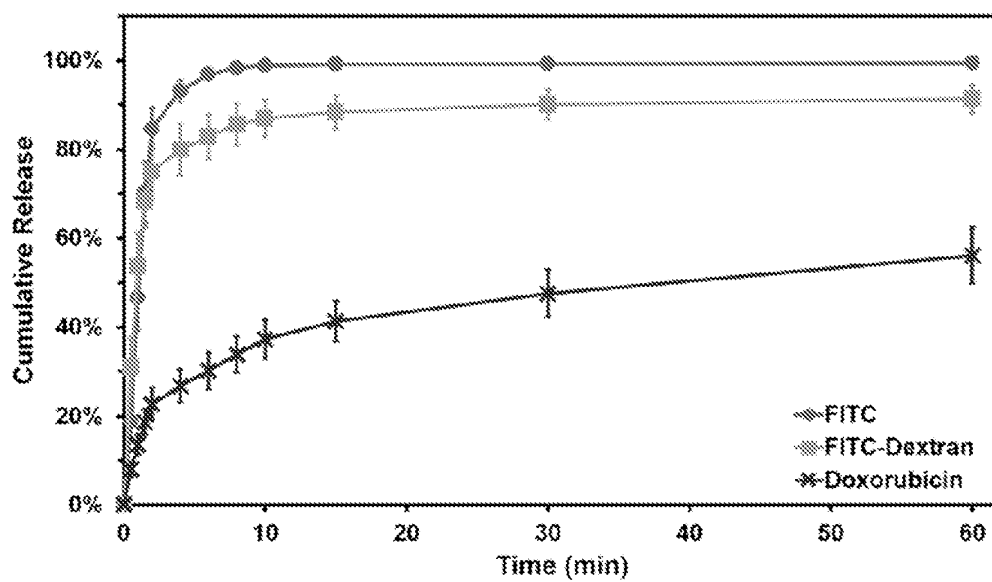


FIG. 14

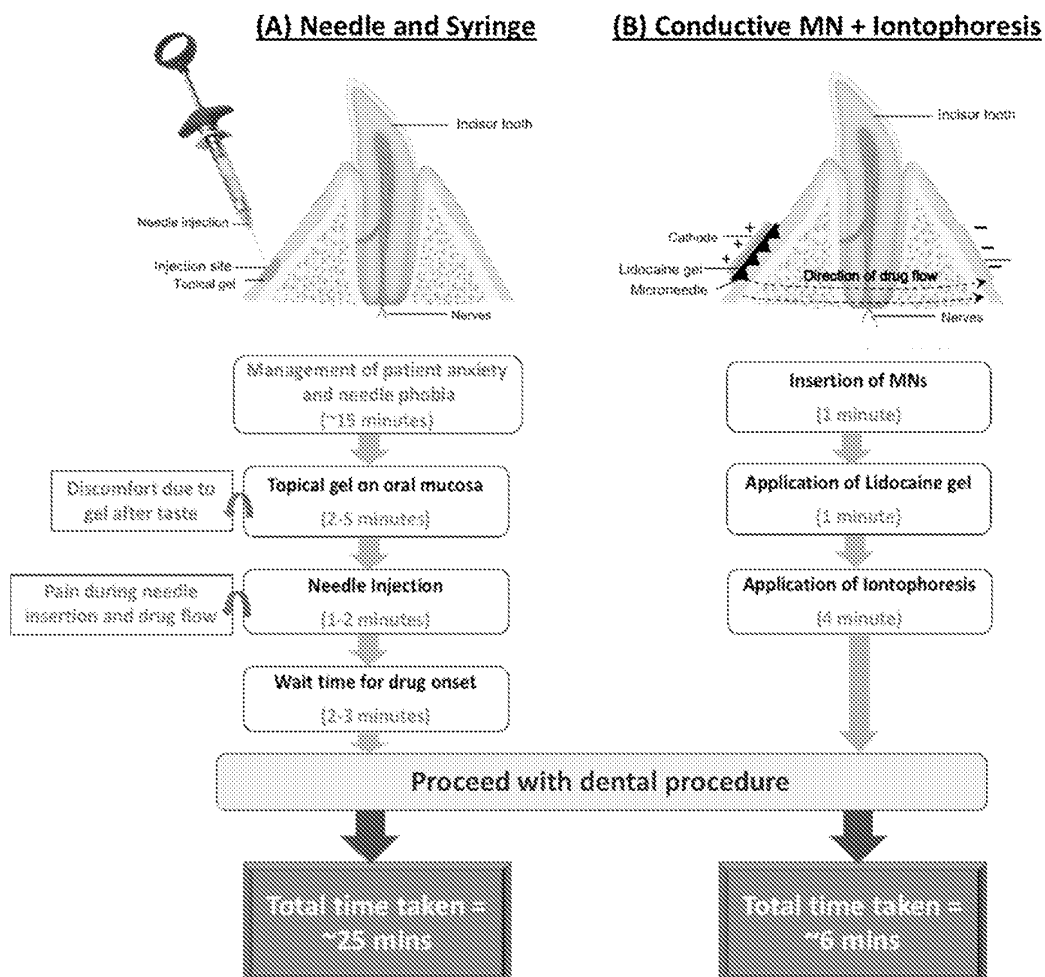


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**FIG. 15**

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FIG. 16



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FIG. 17

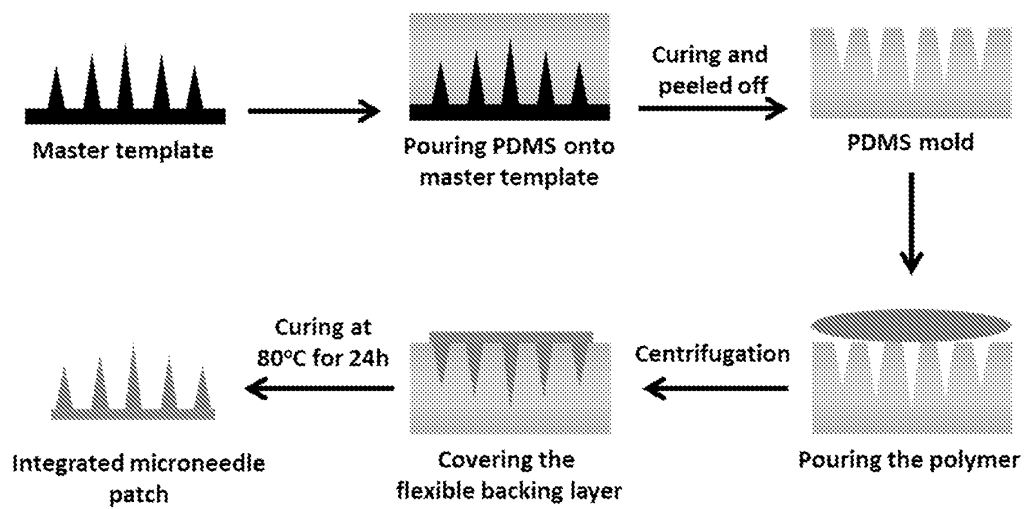


FIG. 18

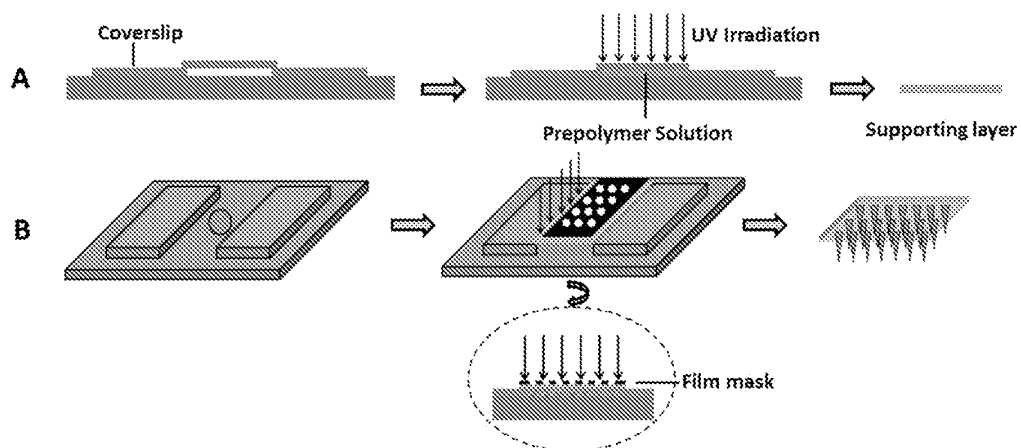
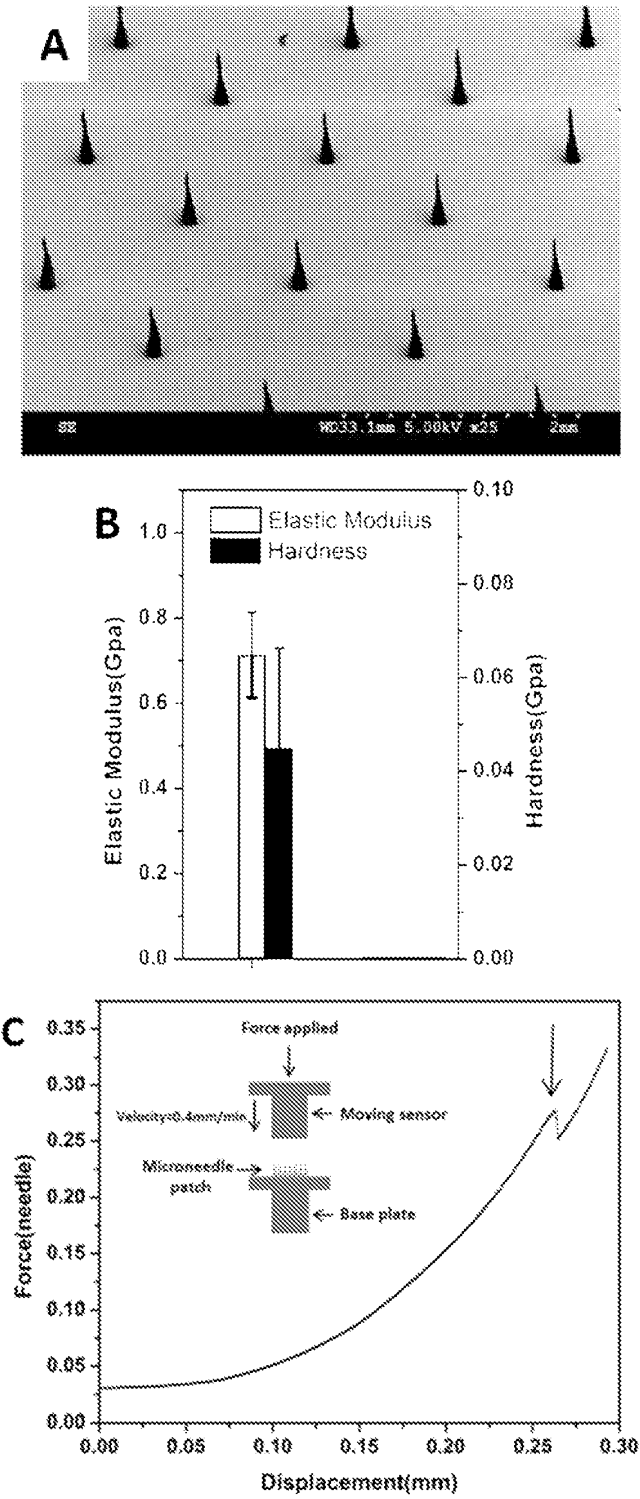
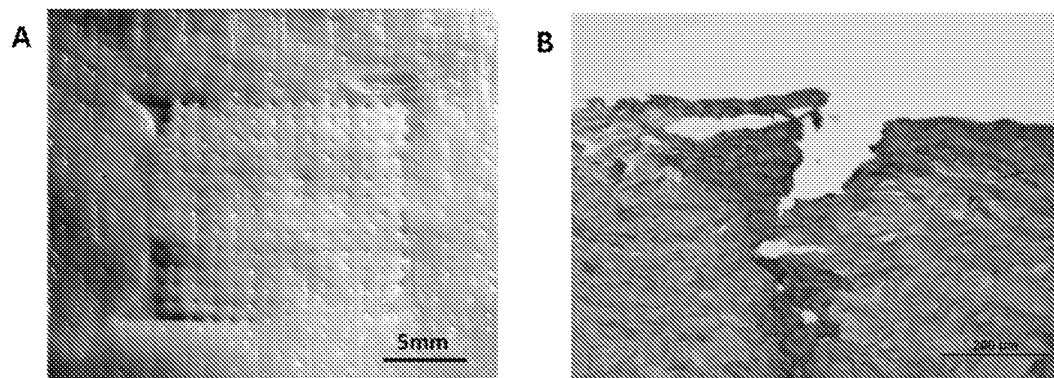


FIG. 19

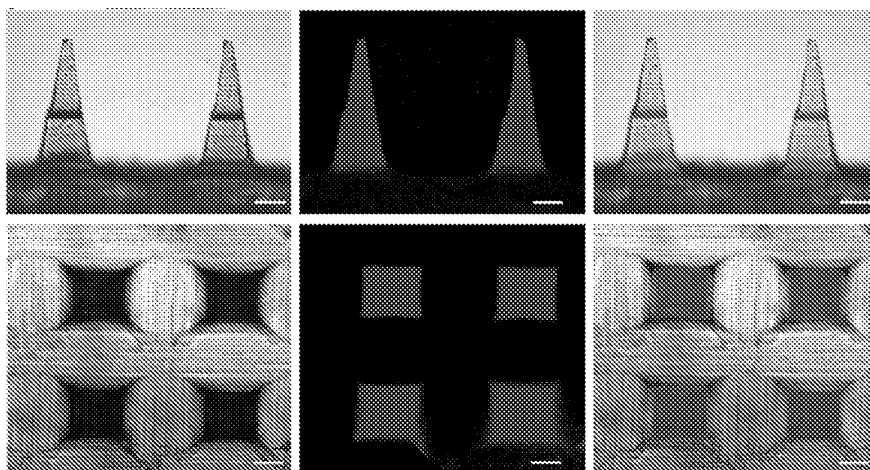


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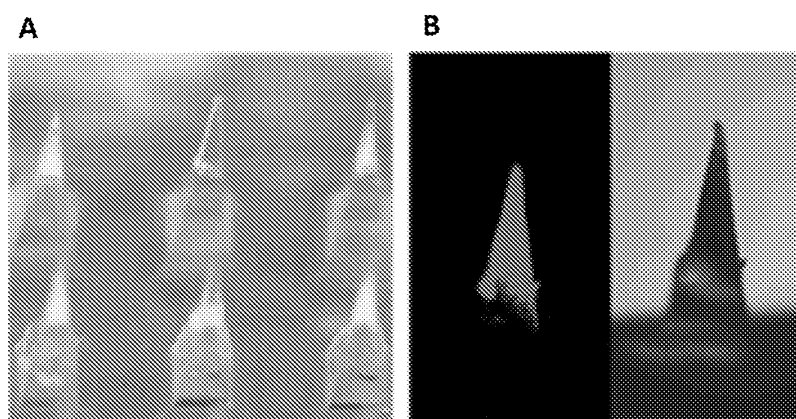
**FIG. 20**



**FIG. 21**



**FIG. 22**



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FIG. 23

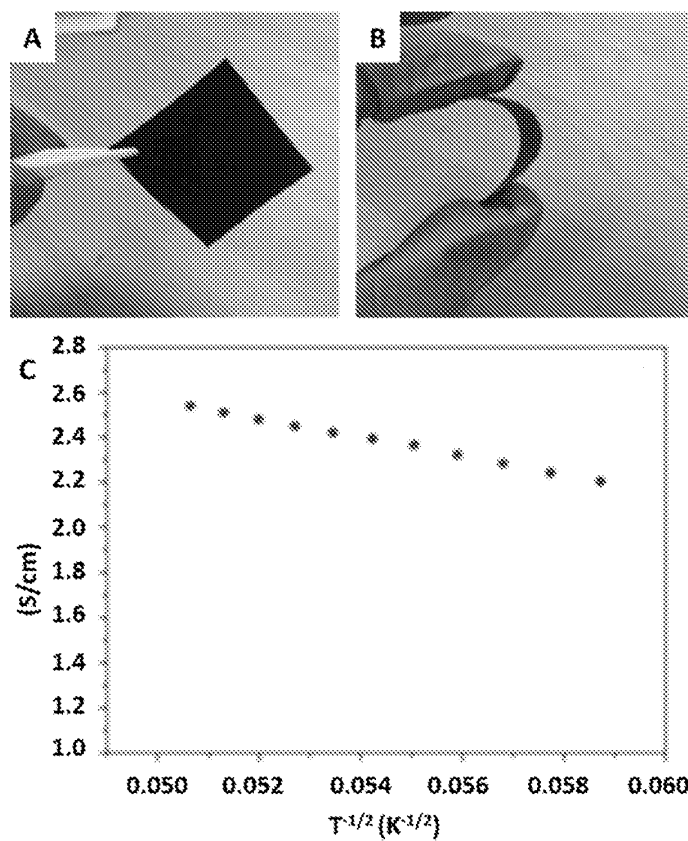
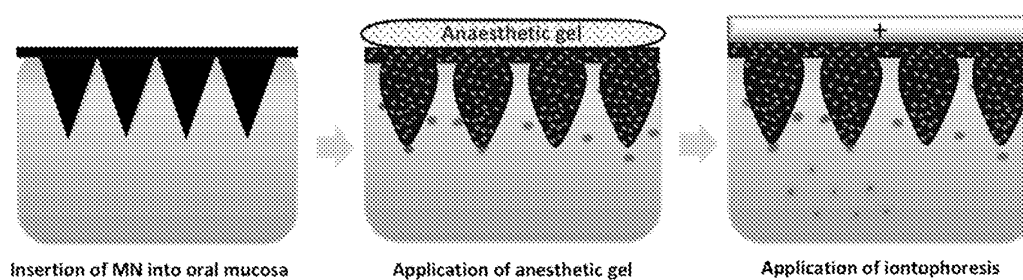
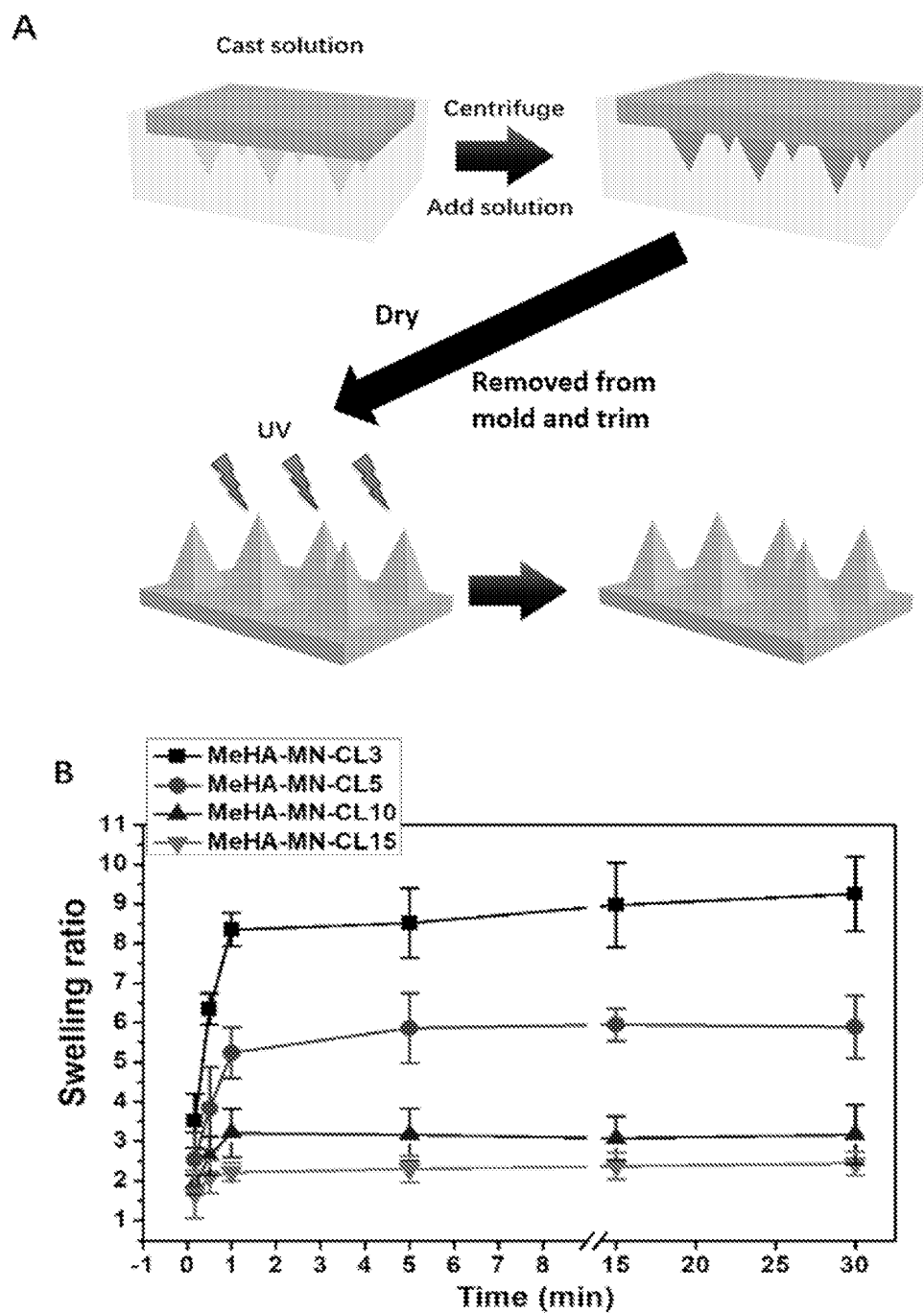


FIG. 24



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FIG. 25



**FIG. 25 (Continued)**