

[ABSTRACT OF THE DISCLOSURE]

A hydrogel is formed by a reaction which is induced, in an electrolytic solution, by an electrode product electrochemically generated by electrodes installed in the electrolytic solution. An apparatus including an electrolytic
5 tank with a bottom surface on which a two-dimensional array of working electrodes is provided and a counter electrode installed in the electrolytic tank is prepared. An electrolytic solution containing a dissolved substance that causes electrolytic deposition of a hydrogel is housed in the electrolytic tank. By applying a predetermined voltage to one or more
10 selected working electrodes of the two-dimensional array, a hydrogel with a two-dimensional pattern corresponding to the arrangement of the selected working electrodes is formed.