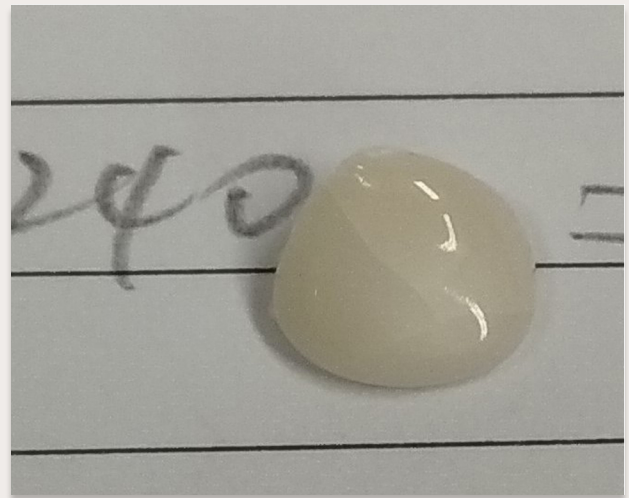


# Electrophoretic Deposition of Zirconia Dental Crown Coping

## Technology Overview

The technology relates to the field of preparation of zirconia dental crown coping, which is used for making ceramic zirconia crowns. In the market, ceramic zirconia crowns are very expensive. This is because zirconia ceramic is very difficult to be milled due to the hardness of zirconia, which measures 8-8.5 on the Mohs scale (this figure is close to the hardness of diamond, i.e. 10 on the Mohs scale).

The invention provides a low-cost proprietary electrophoretic deposition (EPD) method for manufacturing ceramic zirconia crowns using digital fabrication process instead of the conventional manual process. The EPD system consists of an anode and a cathode. Zirconia will be deposited on the anode forming the inner shape of the crown defined by dental software and 3D printing technology. The deposited green body will be hardened and becomes the zirconia ceramic coping after sintering.



## Features & Specifications

- Proprietary electrophoretic deposition method of manufacturing ceramic zirconia crown
- Reliable digital fabrication process



## Customer Benefits

- Low investment cost of equipment
- The process requires minimal manual operations
- Low production cost of ceramic zirconia crown

## Potential Applications

This technology can be applied in the dental lab industry.