



FIG. 1.4 Dental implant made of Cp-Ti coated with bioactive glass via EPD before (A) and after (B) vacuum sintering. SEM image of a sintered implant (C–E). (Reproduced with permission from Braem, A., et al., 2012. *Bioactive glass-ceramic coated titanium implants prepared by electrophoretic deposition. Mater. Sci. Eng. C 32, 2267–2273 of Elsevier.*)

anodic deposition of multiwalled carbon nanotubes on top of the BG coating. The idea was to promote attachment of osteoblast cells and to provide a defined nanotopography through the formation of nanoscaled meshes on the surface of the BG. Moreover, [Graubmann et al. \(2013\)](#) used a BG close to the 45S5 composition combined with polycaprolactone (PCL) to produce coatings. PCL was shown to better fixate the used nano-BG, giving improved mechanical properties. However, PCL was deposited via dipping and only BG was deposited by EPD. In addition to sequential deposition, also the co-deposition of BG particles and other materials has been reported. For example, [Schausten et al. \(2010\)](#) co-deposited 45S5 BG with multiwalled carbon nanotubes on stainless steel, leading to reinforcement of the BG particles by CNTs. A combination of sequential and co-deposition was also performed by [Ananth et al. \(2013\)](#) who coated a $55\text{SiO}_2\text{-}26\text{CaO-}13\text{MgO-}6\text{P}_2\text{O}_5$ glass layer reinforced with yttrium-stabilized zirconia (YSZ) on a YSZ-coated $\text{Ti}_6\text{Al}_4\text{V}$ substrate to increase the mechanical properties and the corrosion resistance, while [Farnoush et al. \(2015\)](#) co-deposited 45S5 BG glass with hydroxyapatite (HA) on a HA-coated MAO-pure Ti substrate.

Besides 2D substrates, also 3D scaffolds can be coated by EPD. [Cabanas-Polo et al. \(2016\)](#) coated polyurethane foams with BG in order to produce BG