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(54) Title of the invention : ELECTROSPUN NANOFIBERS LOADED WITH APEXIFICATION MATERIALS FOR DENTAL APPLICATIONS

(51) International classification	:D01D0005000000, D01F0001100000, D04H0001728000, A61K0009700000, A61C0005500000	(71) <b>Name of Applicant :</b> <b>1)JSS ACADEMY OF HIGHER EDUCATION AND RESEARCH</b> Address of Applicant :JSS ACADEMY OF HIGHER EDUCATION AND RESEARCH, (Deemed to be University) Mysore, Karnataka, India-570015 Karnataka India
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(57) Abstract :

The present invention provides a method of delivering mineral trioxide aggregate (MTA) and apexification material to the apical end of the root. Accordingly, mineral trioxide aggregate (MTA) and Nanohydroxyapatite (n-HA) crystals of different concentrations are mixed to the polymer slurry in acetone and the mixture is then mixed thoroughly to ensure uniform dispersion of n-HA crystals and MTA in the polymer slurry, the mixture is then subjected to electrospinning and the modified medicated electrospun polymer nanofibers (101) is obtained by dissolving a selected polymer in acetone in a concentration of at least 10 wt% and loaded into a 10 mL syringe with a blunt 18 G needle and a high voltage was applied to the needle tip and the resulting electrospun polymer nanofibers (101) was collected on a grounded aluminum foil collector.

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