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[U.S. Patent No. 12,110,612](#) entitled “Alternating Field Electrode System and Method for Fiber Generation” issued October 8, 2024 to The UAB Research Foundation of Birmingham, Alabama. Invented by Andrei Stanishevsky also of Birmingham, Alabama and William Brayer of Maylene, Alabama. **Abstract:** An electrode system for use in an AC-electrospinning process comprises an electrical charging component electrode and at least one of an AC field attenuating component and a precursor liquid attenuating component. The electrical charging component electrode is electrically coupled to an AC source that places a predetermined AC voltage on the electrical charging component electrode. In cases in which the electrode system includes the AC field attenuating component, it attenuates the AC field generated by the electrical charging component electrode to better shape and control the direction of the fibrous flow. In cases in which the electrode system includes the precursor liquid attenuating component, it serves to increase fiber generation, even if the top surface of the liquid precursor is not ideally shaped or is below a rim or lip of the reservoir that contains the liquid on the electrical charging component electrode.