



INORGANIC-PROTEIN COATING FOR MAGNESIUM BASED BIOMEDICAL DEVICES

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HIGHLIGHTS

- **Inorganic/Protein Coating:** Protein coating enhances properties of inorganic, enamel based material.
- **Ideal for Biomedical Applications:** Designed for use in dental and orthopedic implants, the coating is biodegradable. Controlled adsorption reduces the need for secondary surgeries.
- **Validated Performance:** Lab tests show superior stability, biocompatibility and point to potential applications in complex biological environments.

OPPORTUNITY

This inorganic-protein hybrid coating addresses a critical need in the dental and orthopedic implant markets for materials that enhance durability, biocompatibility, and resistance to biofouling. This technology aligns with the shift toward patient-friendly, biodegradable implant solutions that eliminate removal procedures. Its adaptability across various biomedical devices recommends it for applications in which gradual absorption and biocompatibility are essential.

COMPETITIVE ADVANTAGE

- **Enhanced Corrosion and Biofouling Resistance:** Protein integration enables a denser, crack-sealing structure, extending the coating's functional lifespan beyond conventional inorganic coatings.
- **Unique Synergy:** Combining the mechanical resilience of tooth enamel with the biological compatibility of a protein creates a robust coating, especially suitable for temporary implants.
- **Patient-Friendly Biodegradability:** Safe adsorption without surgical intervention - in step with modern biomedical design principles.

IP STATUS

- Patent-Pending

INVENTORS

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MORE INFORMATION

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