

**REFRACTORY COATED INDUCTION COIL FOR USE IN
THIN FILM DEPOSITION AND METHOD FOR MAKING**

Abstract of the Invention

An induction coil (16) and method of manufacturing is provided for refractory or dielectric material coated thin coils for use in ionized metal plasma or plasma-enhanced physical vapor thin film deposition. A coil substrate made of a plastic metal that is easily formed into a coil shape is coated, preferably by a thermal spray technique, with a material substantially identical to the material to be deposited as the thin film to prevent film contamination. Similarly, a method of manufacturing is provided for refractory or dielectric material coated showerheads for use is plasma-enhanced chemical vapor thin film deposition.

Sole Figure