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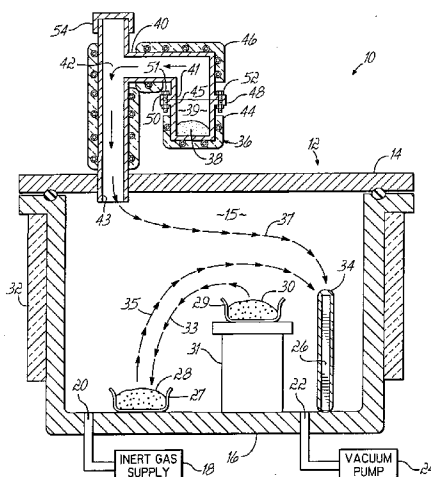
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(54) Title: SIMPLE CHEMICAL VAPOR DEPOSITION SYSTEM AND METHODS FOR DEPOSITING MULTIPLE-METAL ALUMINIDE COATINGS



(57) Abstract: A chemical vapor deposition (CVD) system and method for applying an aluminide coating (34) constituted by two or more extrinsic metal components on a jet engine component (26). The aluminide coating (34) is capable of forming a protective complex oxide upon subsequent heating in an oxidizing environment. At least one of the extrinsic metals in the aluminide coating (34) is provided as a distinct vapor phase reactant (37) from a receptacle (36) coupled by a closed communication path (40) with the reaction chamber (12) of the CVD system and free of a carrier gas. The aluminide coating (34) is formed by the chemical combination of the vapor phase reactant (37) with another vapor phase reactant (35) either created in situ in the reaction chamber (12) or supplied by a carrier gas to the reaction chamber (12) from a precursor source (60).



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