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(54) Title: **USE OF PALLADIUM IMMERSION DEPOSITION TO SELECTIVELY INITIATE ELECTROLESS PLATING ON TI AND W ALLOYS FOR WAFER FABRICATION**

(57) Abstract

A method for making integrated circuit wafers wherein the wafer has vias or other openings in the wafer which openings have a barrier/adhesion or other metal layer which is metallized to form the circuit comprising activating the metal layer and then sensitizing the metallic layer using a sensitizing displacement composition comprising preferably an alkaline palladium non-ammonia nitrogen (ethylene diamine) complex which is contacted with the wafer at a specially controlled pH. The wafer is activated using an activation solution which contains a complexing agent for any dissolved metal. The sensitizing solution also preferably contains a complexing agent for dissolved metal and preferably contains a second complexing agent such as EDTA to solubilize base metal contaminants.