

ABSTRACT

MOLYBDENUM (0) PRECURSORS FOR DEPOSITION OF MOLYBDENUM FILMS

5

Molybdenum(0) coordination complexes comprising ligands which each coordinate to the metal center by nitrogen or phosphorous are described. Methods for depositing molybdenum-containing films on a substrate are described. The substrate is exposed to a molybdenum precursor and a reactant to form the molybdenum-

10

containing film (e.g., elemental molybdenum, molybdenum oxide, molybdenum carbide, molybdenum silicide, molybdenum nitride). The exposures can be sequential or simultaneous.

(fig. 2A)