

ABSTRACT

**MOLYBDENUM(IV) AND MOLYBDENUM(III) PRECURSORS FOR DEPOSITION OF
MOLYBDENUM FILMS**

Molybdenum(IV) and molybdenum(III) coordination complexes 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-containing film (e.g., elemental molybdenum, molybdenum oxide, molybdenum carbide, molybdenum silicide, molybdenum nitride). The exposures can be sequential or simultaneous.

(fig,1)