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- (71) **Applicant:** SIGMA-ALDRICH CO. LLC [US/US]; 3050 Spruce St., St. Louis, MO 63103 (US).
- (72) **Inventors:** ODEDRA, Rajesh; 221 Manchester Road, Altringham, Cheshire WA14 5NU (GB). GARRATT, Shaun; 35 Stanley Lane, Eastham, Wirral CH62 0AG (GB). SALY, Mark; 16 May St., North Andover, MA 01845 (US). KANJOLIA, Ravi; 150 Old Farm Road, North Andover, MA 01845 (US).
- (74) **Agent:** RAKERS, Leanne, M.; Harness, Dickey & Pierce, P.L.C., 7700 Bonhomme, Suite 400, St. Louis, MO 63105 (US).

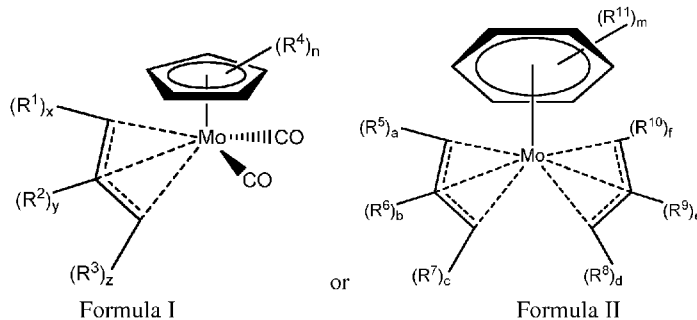
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(54) **Title:** MOLYBDENUM ALLYL COMPLEXES AND USE THEREOF IN THIN FILM DEPOSITION



(57) **Abstract:** Molybdenum complexes and use thereof in thin film deposition, such as CVD and ALD are provided herein. The molybdenum complexes correspond in structure to Formula (I) and Formula (II), wherein R^1 , R^3 , R^5 , R^7 , R^8 and R^{10} are independently and at each occurrence alkyl; R^2 , R^6 and R^9 are independently alkyl; R^4 and R^{11} are independently and at each occurrence selected from the group consisting of alkyl, alkenyl, and alkynyl; x , z , a , c , d and f are independently zero, 1, or 2; y , b and e are independently zero or 1; and n and m are independently zero to 5.