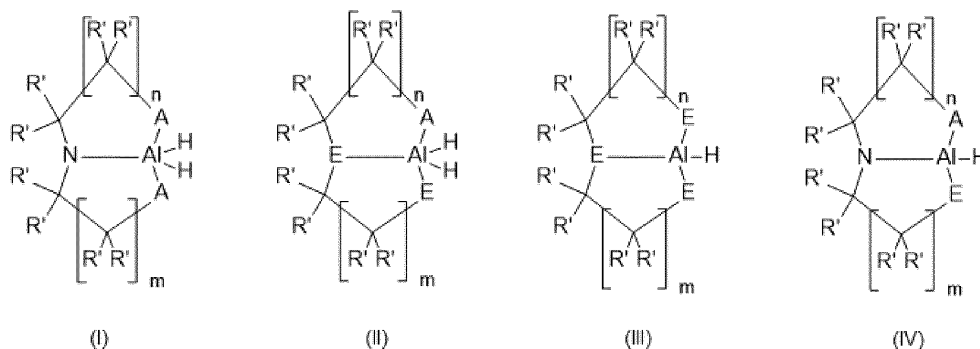


Claims

1. Process for preparing inorganic metal-containing films comprising bringing a solid substrate in contact with a compound of general formula (I), (II), (III), or (IV) in the gaseous state

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- wherein A is NR_2 or OR with R being an alkyl group, an alkenyl group, an aryl group, or a silyl group,
E is NR or O,
n is 0, 1 or 2, m is 0, 1 or 2, and
R' is hydrogen, an alkyl group, an alkenyl group, an aryl group, or a silyl group.

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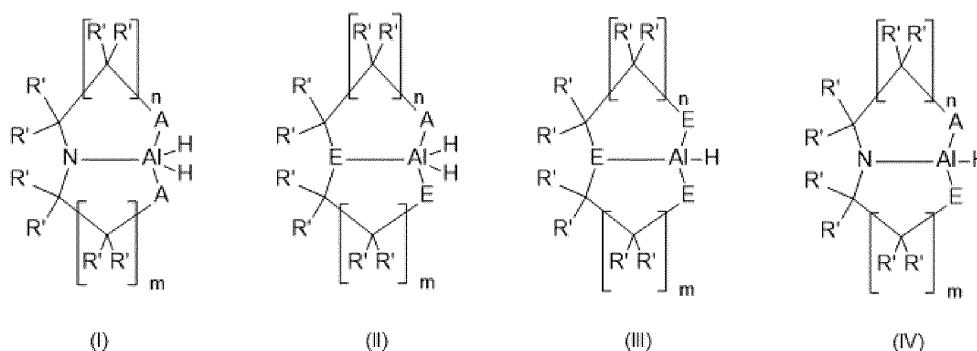
2. The process according to claim 1, wherein R is methyl, ethyl, tert-butyl, trimethylsilyl or two R form together a five membered ring and R' is hydrogen.
3. The process according to claim 1 or, wherein if E is NR or A is OR, R in NR or OR bears no hydrogen atom in the 1-position.
4. The process according to any of the claims 1 to 3, wherein a metal-containing compound is deposited from the gaseous state onto the solid substrate before bringing it in contact with a compound of general formula (I), (II), (III), or (IV).
5. The process according to claim 4, wherein the metal-containing compound contains Ti, Ta, Mn, Mo, W, Al, Co, Ga, Ge, Sb, or Te.
6. The process according to claim 4 or 5, wherein the metal-containing compound is a metal halide.
7. The process according to any of the claims 1 to 3, wherein the adsorbed compound of general formula (I), (II), (III), or (IV) is decomposed.

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8. The process according to any of the claims 4 to 7, wherein the sequence containing bringing a solid substrate in contact with a compound of general formula (I), (II), (III), or (IV) and depositing a metal-containing compound or decomposing the adsorbed compound of general formula (I), (II), (III), or (IV) is performed at least twice.
9. The process according to any of the claims 1 to 8, wherein the compound of general formula (I) has a molecular weight of not more than 600 g/mol.
10. The process according to any of the claims 1 to 9, wherein the compound of general formula (I) has a vapor pressure at least 1 mbar at a temperature of 200 °C.
11. A compound of general formula (I), (II), (III), or (IV)



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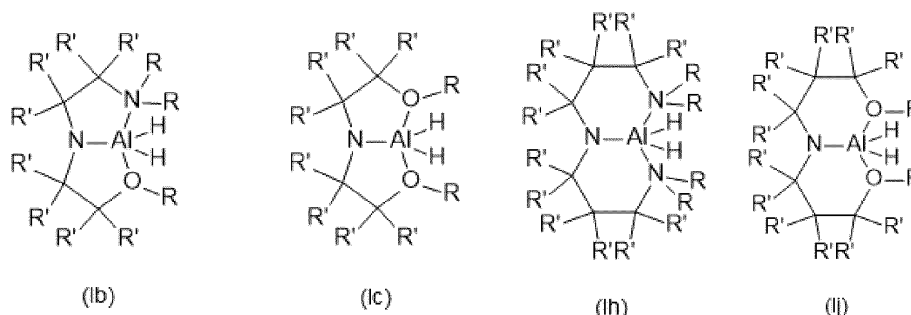
wherein A is NR_2 or OR with R being an alkyl group, an alkenyl group, an aryl group, or a silyl group,

E is NR or O ,

n is 0, 1 or 2, m is 0, 1 or 2, and

- 20 R' is hydrogen, an alkyl group, an alkenyl group, an aryl group, or a silyl group wherein at least one E or A contains oxygen or n is 2 or m is 2.

12. The compound according to claim 11, wherein the compound is a compound of general formula (Ib), (Ic), (Ih), (Ij)



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13. The compound according to claim 10 or 11, wherein R' is hydrogen and R is R is methyl, ethyl, tert-butyl or trimethylsilyl, or two R form together a five-membered ring.