**CLAIMS**

1. Platinum complex of the type $[(COD)Pt[O(CO)R1]_2]_n$ or $[(NBD)Pt[O(CO)R1]_2]_n$, wherein n is 1 or 2, and wherein R1 stands for a C5-C17 or C7-C17 non-aromatic hydrocarbon group with the exception of benzyl.

2. Method for producing platinum complexes according to claim 1 via ligand exchange, comprising emulsifying a two-phase system, wherein one phase comprises an at least substantially water-immiscible organic solution of a reactant of the type $[L1L2PtX_2]_n$ with X selected from bromide, chloride, and iodide; and wherein the other phase comprises an aqueous solution of alkali and/or magnesium salt of a monocarboxylic acid R1COOH, wherein L1L2 means COD or NBD.

3. Use of one or more platinum complexes according to claim 1, or obtainable via a method according to claim 2, for producing a platinum layer on a substrate.

4. Use according to claim 3, wherein the substrate is a temperature-sensitive substrate.

5. Use according to claim 3 or 4, comprising the provision of an organic solution of the platinum complex or complexes, application of the organic solution directly to a substrate or as a component of a preparation having at least one further component, and heating of the applied coating to an object temperature above the decomposition temperature of the platinum complex or complexes.