

# New chlorine-carboxylate complexes of rhenium (III) with alkylcarboxylate with high steric hindrance

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### **Description of the solution:**

A new chloride-carboxylate complex of rhenium(III) with an alkylcarboxylate with a large spatial hinge and small-molecule ligands with the general formula cis-[(Re\_Cl\_4(CH\_3OH)(DMSO)(\mu-O\_2CCH\_2'BU)\_2]CH\_3OH. Also the subject of the invention is a new chloride-carboxylate complex of rhenium(III) with alkylcarboxylate with a large spatial hinge and small-molecule ligands with the general formula cis-[Re\_Cl\_4(DMSO)\_2(\mu-O\_2CCHEt\_2)\_2]. The subject of the invention is also a new chloride-carboxylate complex of rhenium(III) with alkylcarboxylate with a large spatial hare with the general formula trans-[Re\_Cl\_2(\mu-Cl\_2)(\mu-O\_2CCH\_2'BU)\_2]\_n. Also the subject of the invention is a new chloride-carboxylate complex of rhenium(III) with alkylcarboxylate with a large spatial hare with the general formula trans-[Re\_2Cl\_4(\mu-O\_2CCHEt\_2)\_2].

## Benefits of the solution:

• Possibility of obtaining parts that are lighter and cheaper than solid element with the desired properties (by depositing thin rhenium covers, on carbon material or other substrates).

## Area of application:

Electronics, electrical engineering, process engineering.

## **Technology readiness level:**

6

## **Intellectual property:**

Invention: P.442616

## **Owner:**

KGHM Polska Miedź S.A., Uniwersytet Mikołaja Kopernika w Toruniu, Sieć Badawcza Łukasiewicz - Instytut Metali Nieżelaznych, Politechnika Wrocławska, Politechnika Rzeszowska im.Ignacego Łukasiewicza, Akademia Górniczo-Hutnicza im.Stanisława Staszica w Krakowie, Politechnika Warszawska, Sieć Badawcza Łukasiewicz - Instytut Spawalnictwa, Sieć Badawcza Łukasiewicz - Instytut Technologii Eksploatacji, Plasma System S.A. w restrukturyzacji.

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