Claims

1. Gold alloy containing 99 wt.%, preferably 99.9 wt.%, gold and 1 to 1000 ppm, preferably 10 to 100 ppm, calcium and 1 to 1000 ppm, preferably 10 to 100 ppm, ytterbium or europium or a mixture of ytterbium and europium, characterized in that the gold alloy is formed as a homogeneous mixed crystal.

2. Method for producing a homogeneous, single-phase gold alloy containing europium and/or ytterbium, characterized in that europium or ytterbium or europium and ytterbium are dissolved in gold as a homogeneous master alloy consisting exclusively of doping elements.

3. Method according to Claim 2, characterized in that the homogeneous master alloy is a calcium master alloy.

4. Calcium-doped bonding wire containing 99.9 wt.% gold and 1 to 1000 ppm, preferably 10 to 100 ppm, calcium and 1 to 1000 ppm, preferably 10 to 100 ppm ytterbium or europium or a mixture of ytterbium and europium, characterized in that the gold alloy is formed as a homogeneous mixed crystal.

Claims

1. Method for producing a homogeneous gold alloy containing calcium, europium and/or ytterbium, **characterised in that** a gold-free-pre-alloy made of (i) calcium and (ii) europium and/or ytterbium is dissolved in gold.