What is claimed is:

1. A gold alloy bonding wire drawn to a diameter of 20 εm or less, which is made from a gold alloy matrix and minor trace elements added to the gold alloy matrix,

said gold alloy matrix comprising at least one out of palladium, platinum and copper, which have a purity of no less than 99.9 mass %, in a total amount of 0.05 to 2 mass % and gold of a purity of no less than 99.999 mass %, and

~~characterized in that~~ said minor trace elements consist of calcium in an amount of 5 - 50 mass ppm, magnesium in an amount of 5 - 50 mass ppm, and lanthanum in an amount of 5 - 50 mass ppm.

2. A gold alloy bonding wire drawn to a diameter of 20 εm or less, which is made from a gold alloy matrix and minor trace elements added to the gold alloy matrix,

said gold alloy matrix comprising at least one out of palladium, platinum and copper, which have a purity of no less than 99.9 mass %, in a total amount of 0.05 to 2 mass % and gold of a purity of no less than 99.999 mass %, and

~~characterized in that~~ said minor trace elements consist of calcium in an amount of 5 - 50 mass ppm, magnesium in an amount of 5 - 50 mass ppm, lanthanum in an amount of 5 - 50 mass ppm, and beryllium in an amount of 1 20 mass ppm.

3. A gold alloy bonding wire drawn to a diameter of 20 εm or less, which is made from a gold alloy matrix and minor trace elements added to the gold alloy matrix,

said gold alloy matrix comprising at least one out of palladium, platinum and copper, which have a purity of no less than 99.9 mass %, in a total amount of 0.05 to 2 mass % and gold of a purity of no less than 99.999 mass %, and

~~characterized in that~~ said minor trace elements consist of calcium in an amount of 5 - 50 mass ppm, magnesium in an amount of 5 - 50 mass ppm, lanthanum in an amount of 5 - 50 mass ppm, and also at least one of cerium, yttrium and europium in a total amount of 1 -30 mass ppm.

4. A gold alloy bonding wire drawn to a diameter of 20 εm or less, which is made from a gold alloy matrix and minor trace elements added to the gold alloy matrix,

said gold alloy matrix comprising at least one out of palladium, platinum and copper, which have a purity of no less than 99.9 mass %, in a total amount of 0.05 to 2 mass % and gold of a purity of no less than 99.999 mass %, and

~~characterized in that~~ said minor trace elements consist of calcium in an amount of 5 - 50 mass ppm, magnesium in an amount of 5 - 50 mass ppm, lanthanum in an amount of 5 - 50 mass ppm, beryllium in an amount of 1 - 20 mass ppm, and also at least one of cerium, yttrium and europium in a total amount of 1 - 30 mass ppm.

5. A gold alloy bonding wire as claimed in any one of claims 1 through 4, ~~characterized in that~~ wherein a total amount of all minor trace elements is 100 mass ppm or smaller.