WHAT IS CLAIMED IS:

1. A chip manufacturing method for manufacturing a plurality of chips by dividing a wafer containing silicon, the wafer having a front side on which a plurality of division lines are formed to define a plurality of separate regions where a plurality of devices are respectively formed, a metal layer containing copper being formed on each division line, the chip manufacturing method comprising:

a protective film forming step of forming a protective film on the front side of the wafer;

a laser processed groove forming step of applying a laser beam to the front side of the wafer along each division line after performing the protective film forming step, the laser beam having an absorption wavelength to the wafer, thereby removing the metal layer and forming a laser processed groove on the front side of the wafer along each division line;

an enlargement promoting step of promoting the enlargement of debris generated by the formation of the laser processed groove and adhering to the inside surface of the laser processed groove, after performing the laser processed groove forming step; and

a dividing step of dividing the wafer along the

laser processed groove after performing the enlargement promoting step.

2. The chip manufacturing method according to claim 1, further comprising:

a removing step of removing the protective film after performing the enlargement promoting step.

3. The chip manufacturing method according to claim 1 and 2, wherein

the dividing step is performed by using a cutting blade to cut the wafer along the laser processed groove, the cutting blade having a thickness smaller than the width of the laser processed groove, thereby dividing the wafer along the laser processed groove.

4. The chip manufacturing method according to any one of claim 1 to 3, wherein

the enlargement promoting step is performed by placing the wafer in the environment where the temperature is in the range of 50°C to 200°C, thereby promoting the enlargement of the debris.

5. The chip manufacturing method according to any one of claim 1 to 3, wherein

the enlargement promoting step is performed by placing the wafer in the environment where the humidity is 75% or higher, thereby promoting the enlargement of

the debris.