WHAT IS CLAIMED IS:

1. A processing method for a wafer having a substrate, a plurality of devices formed by a function layer stacked on a front surface of the substrate, and a film formed on a back surface of the substrate, the method including dividing the wafer along a plurality of intersecting streets sectioning the devices, the method comprising:

a protective member arrangement step of arranging a protective member on a front surface of the wafer;

a laser processed groove forming step of, after the protective member arrangement step, irradiating a laser beam of a wavelength, which has absorption in the film or the substrate, to an entire area on a back surface of the wafer, with a condensing point positioned at the film, so that laser processed grooves are formed in the back surface of the wafer to remove the film in parts;

a provisional grinding step of grinding the back surface of the wafer, in which the laser processed grooves have been formed, by grinding stones to remove remaining parts of the film and the laser processed grooves, so that the wafer is formed to a predetermined thickness greater than a finish thickness;

a modified layer forming step of, after the

provisional grinding step, irradiating a laser beam of a wavelength, which has transmissivity through the substrate, from a side of the back surface of the wafer, from which the film has been removed, with a condensing point of the laser beam positioned inside the substrate, so that modified layers are formed along the streets inside the substrate; and

a grinding step of grinding the wafer, in which the modified layers have been formed, by grinding stones from the side of the back surface of the wafer, so that the wafer is thinned to the finish thickness and the wafer is divided into individual chips along the modified layers.

2. The processing method according to claim 1, wherein

in the laser processed groove forming step, the laser processed grooves extend in a height direction through the film.

3. The processing method according to claim 2, wherein

the film allows easy transmission of the laser beam therethrough, and

the laser processed groove forming step is performed after coating a surface of the film with a water-soluble liquid resin containing a light absorbing

material that promotes absorption of the laser beam.

4. The processing method according to claim 3, wherein the light absorbing material is selected from nitride or oxide.

5. The processing method according to any one of the preceding claims, wherein

in the laser processed groove forming step, depressions and elevations are formed on the side of the back surface of the wafer by the laser processed grooves, and

in the provisional grinding step, impacts are produced when the grinding stones strikes the elevations, said impacts bringing about dressing effect for the grinding stones.