WHAT IS CLAIMED IS:

1. A method of processing a plate-shaped workpiece that includes on a face side thereof layered bodies containing metal which are formed in superposed relation to projected dicing lines, comprising the steps of:

holding the face side of said workpiece on a holding table;

thereafter, applying a laser beam having a wavelength that is absorbable by said workpiece to a reverse side thereof along the projected dicing lines to form laser-processed grooves in said workpiece, extending along the projected dicing lines, which terminate short of said layered bodies, thereby leaving a portion of said workpiece above said layered bodies; and

thereafter, cutting bottoms of said laser-processed grooves, including said portion of said workpiece above said layered bodies, with a cutting blade to sever said workpiece together with said layered bodies along said projected dicing lines;

wherein said step of cutting bottoms of said laser-processed grooves includes the step of cutting bottoms of said laser-processed grooves while supplying a cutting fluid containing an organic acid and an oxidizing agent to

said workpiece, wherein the organic acid modifies the metal in the layered bodies to restrain ductility of the metal.

2. The method according to claim 1, further comprising the step of:

before said step of cutting bottoms of said laser-processed grooves, providing a protective member on the face side of said workpiece;

wherein said step of cutting bottoms of said laser-processed grooves is performed while the face side of said workpiece is held through said protective member provided thereon.

3. The method according to claim 2, wherein the cutting blade used in said step of cutting bottoms of said laser-processed grooves has a thickness smaller than the width of said laser-processed grooves.

4. The method according to claim 1, further comprising the step of:

after said step of applying a laser beam and before said step of cutting bottoms of said laser-processed grooves, providing a protective member on the reverse side of said workpiece;

wherein said step of cutting bottoms of said laser-processed grooves is performed while the reverse side of said workpiece is held through said protective member provided thereon.