WHAT IS CLAIMED IS:

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

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

thereafter, applying a laser beam having a wavelength that is absorbable by said workpiece to a face 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 body, thereby leaving a portion of said workpiece above said layered body; and

thereafter, cutting bottoms of said laser-processed grooves with a cutting blade to sever said workpiece together with said layered body 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 body to restrain its ductility.

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 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.

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 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.