CLAIMS

1. A treatment apparatus comprising:

a vessel made of a microwave-reflecting material, and having a lower portion with a discharge port;

an irradiation unit configured to perform microwave irradiation into the vessel;

a filter located between the discharge port and a position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, made of a microwave-transmitting material, and having multiple holes for separating solids that are to be separated, from contents of the vessel; and

a reflecting member located between the filter and the discharge port so as to partition the vessel, and configured to allow at least contents having passed through the filter to pass through the reflecting member, and to reflect microwaves,

wherein the filter is laid over the reflecting member.

2. A treatment apparatus used for solid-phase synthesis for synthesizing a peptide bound to a solid-phase resin, comprising:

a vessel made of a microwave-reflecting material, and having a lower portion with a discharge port;

an irradiation unit configured to perform microwave irradiation into the vessel;

a filter located between the discharge port and a position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, made of a microwave-transmitting material, and having multiple holes for separating the solid-phase resin from contents of the vessel; and

a reflecting member located between the filter and the discharge port, or between the filter and the position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, and configured to allow at

least contents having passed through the filter to pass through the reflecting member, and to reflect microwaves.

3. The treatment apparatus according to claim 2, wherein the reflecting member is made of a microwave-reflecting material, and has a plate-like shape with multiple holes that do not allow microwaves having been emitted by the irradiation unit to pass through the holes.

4. The treatment apparatus according to claim 2 or 3, wherein the filter is laid over the reflecting member.

5. A treatment apparatus comprising:

a vessel made of a microwave-reflecting material, and having a lower portion with a discharge port;

an irradiation unit configured to perform microwave irradiation into the vessel;

a filter located between the discharge port and a position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, made of a microwave-transmitting material, and having multiple holes for separating solids that are to be separated, from contents of the vessel; and

a reflecting member located between the filter and the position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, and configured to allow at least contents having passed through the filter to pass through the reflecting member, and to reflect microwaves,

wherein the reflecting member is configured to allow the solids to pass through the reflecting member.

6. The treatment apparatus according to claim 2, wherein the reflecting member is located between the filter and the position from which microwaves are emitted by the irradiation unit, and configured to allow the solid-phase

resin through the reflecting member.

7. The treatment apparatus according to claim 1, wherein the reflecting member is made of a microwave-reflecting material, and has a plate-like shape with multiple holes that do not allow microwaves having been emitted by the irradiation unit to pass through the holes.

8. A treatment apparatus used for solid-phase synthesis for synthesizing a peptide bound to a solid-phase resin, comprising:

a vessel made of a microwave-reflecting material, and having a lower portion with a discharge port;

an irradiation unit configured to perform microwave irradiation into the vessel; and

a filter located between the discharge port and a position from which microwaves are emitted by the irradiation unit, so as to partition the vessel, having multiple holes for separating the solid-phase resin from contents of the vessel, and configured to reflect microwaves.

9. The treatment apparatus according to any one of claims 1 to 8, wherein the treatment apparatus is a treatment apparatus in which microwave irradiation is performed in a multi-mode.