

What is claimed is:

1. A Faraday shield, comprising a conductive annular body, a slit being formed on the conductive annular body, wherein in an unfolded view of the conductive annular body, a projection of the slit in an axial direction of the conductive annular body has a length greater than zero, and a projection of the slit in a circumferential direction of the conductive annular body has a length greater than zero; and

the slit comprises a first sub-slit and a second sub-slit, in the unfolded view of the conductive annular body, an angle between a projection of an axis of the conductive annular body and an extending direction of the first sub-slit is equal to 90 degrees; and an angle between an extending direction of the second sub-slit and the extending direction of the first sub-slit is greater than 0 degree; and

the conductive annular body is divided into N first regions and M second regions in the circumferential direction thereof, and the first regions and the second regions alternate, where N and M are integers greater than or equal to 1;

at least two first sub-slits are disposed in each first region, and the at least two first sub-slits are distributed at an interval along the axial direction of the conductive annular body; and

at least two second sub-slits are disposed in each second region, and the at least two second sub-slits are distributed at an interval along the circumferential direction of the conductive annular body.

2. The Faraday shield according to claim 1, wherein the second sub-slit extends from an upper end surface of the conductive annular body to a lower end surface of the conductive annular body such that the conductive annular body is completely disconnected in the circumferential direction thereof, or

the second sub-slit is between the upper end surface and the lower end surface of the conductive annular body but does not reach the upper end surface or the lower end surface of the conductive annular body.

3. The Faraday shield according to claim 2, wherein the second sub-slit and the first sub-slit intersect with each other.

4. The Faraday shield according to claim 3, wherein a number of the first sub-slit is one or more, and in a case of a plurality of first sub-slits, the plurality of first sub-slits are distributed at an interval along the extending direction of the second sub-slit.

5. The Faraday shield according to claim 4, wherein a number of the first sub-slits is plural, and the plurality of first sub-slits are evenly distributed along the circumferential direction of the conductive annular body.

6. The Faraday shield according to claim 1, wherein the plurality of first regions and the plurality of second regions are evenly distributed along the circumferential direction of the conductive annular body; and

the at least two first sub-slits in each first region are evenly distributed; and the at least two second sub-slits in each second region are evenly distributed.

7. The Faraday shield according to claim 1, wherein a width of the first region in the circumferential direction of the conductive annular body is 50 mm to 200 mm.

8. The Faraday shield according to claim 1, wherein on a cross section obtained by sectioning the slit along a plane perpendicular to an axis of the conductive annular body, the slit is in a form of a tortuous passage.

9. The Faraday shield according to claim 8, wherein the slit is in such a form of a tortuous passage that none of straight lines L1, L2, L3, and L4 meets a following requirement: the straight line does not cut or intersect S1 and S2 except at an upper left corner, a lower left corner, an upper right corner, and a lower right corner of the

slit, and is between S1 and S2;

where S1 is a section line of an outer side surface of the slit, S2 is a section line of an inner side surface of the slit, L1 is a straight line connecting the upper right corner and the lower right corner of the slit, L2 is a straight line connecting the upper left corner and the lower right corner of the slit, L3 is a straight line connecting the upper right corner and the lower left corner of the slit, and L4 is a straight line connecting the upper left corner and the lower left corner of the slit.

10. The Faraday shield according to claim 9, wherein the tortuous passage is formed by disposing a blocking portion in the slit.

11. The Faraday shield according to claim 10, wherein there are two blocking portions, which are a first blocking portion and a second blocking portion, respectively, and are respectively disposed on a first end surface and a second end surface of the conductive annular body at the slit, wherein

the first blocking portion extends from the first end surface toward the second end surface, and there is a first gap between the first blocking portion and the second end surface;

the second blocking portion extends from the second end surface toward the first end surface, and there is a second gap between the second blocking portion and the first end surface;

there is a third gap between the first blocking portion and the second blocking portion in a radial direction of the conductive annular body; and

the first gap, the second gap, and the third gap constitute the tortuous passage.

12. The Faraday shield according to claim 1, wherein the slit is filled with a dielectric material.

13. The Faraday shield according to claim 1, wherein the slit has a width in a range of 2 mm to 10 mm.

14. A reaction chamber, comprising a dielectric cylinder, a Faraday shield and a radio frequency coil, the radio frequency coil being disposed around an outer side of the dielectric cylinder; and the Faraday shield being disposed around an inner side of the dielectric cylinder, wherein the Faraday shield is the Faraday shield according to any one of claims 1 to 13.

15. The reaction chamber according to claim 14, wherein the radio frequency coil uses a cylindrical three-dimensional spiral coil formed by a winding wire having a rectangular section.

16. The reaction chamber according to claim 15, wherein a spacing, in an axial direction, between any two adjacent turns of the winding wire of the cylindrical three-dimensional spiral coil is 6 mm to 10 mm.

17. The reaction chamber according to claim 16, wherein the reaction chamber is a pre-cleaning chamber.