Claims:

[Claim 1] A particle collector system comprising:

a sheet-shaped and flexible dust collection unit that attracts particles by an electrostatic force;

a power supply that supplies power to the dust collection unit to generate an electrostatic force; and

a capacitance measurement unit that measures a capacitance of the dust collection unit which varies according to an amount of particles attracted to the dust collection unit,

wherein the dust collection unit has at least one of a honeycomb shape, a wave-like shape, and a meandering shape and includes a first electrode, a second electrode, and a dielectric body,

wherein each of the first and second electrodes has a length longer than a width, the lengths of the first and second electrodes being juxtaposed side-by-side and extending contiguously in the at least one of the honeycomb shape, the wave-like shape, and the meandering shape of the dust collection unit,

wherein the dielectric body entirely covers the first and second electrodes,

wherein the power supply unit supplies predetermined power supply voltages to the first and second electrodes, and

wherein the capacitance measurement unit measures a capacitance between the first and second electrodes.

[Claim 2] The particle collector system according to claim 1, wherein one side of the sheet-shaped dust collection unit is affixed to a base material.

[Claim 3] The particle collector system according to claim 1, wherein one edge of the meandering shape of the dust collection unit stands on a base material.

[Claim 4] The particle collector system according to claim 1, wherein the dust collection unit is provided on a surface inside a chamber, and the power supply unit and the capacitance measurement unit are disposed outside the chamber.