

Title (en)

Electrostatic precipitator comprising a discharge electrode structure.

Title (de)

Eine Sprühelektrodenstruktur enthaltender elektrostatischer Abscheider.

Title (fr)

Précipitateur électrostatique comprenant une structure d'électrode de décharge.

Publication

EP 0044361 A1 19820127 (EN)

Application

EP 80302450 A 19800718

Priority

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Abstract (en)

An electrostatic precipitator for extracting particles and other contaminants from a gaseous stream to be purified, the contaminants being ionized by means of a discharge electrode structure (15) which includes a column of dielectric material (16) whose central axis is coincident with the axis of a collector tube (14) within which the column is disposed. The column has a cross-sectional geometry that defines a circular series of longitudinally-extending niches. Supported between the ends of the column is a circular array of fine gauge wires (17) each of which is suspended within a respective niche. A high voltage is impressed between the wires in the array and the inner surface of the collector tube to create an electrostatic field in the annular region between the discharge electrode structure and the tube to ionize contaminants in the gaseous stream passing therethrough. The surfaces of the niches acquire bound electrostatic charges whereby the voltage gradient established between the discharge electrode structure and the tube is substantially uniform, thereby attaining optimum collecting and ionization conditions.

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CPC (source: EP)

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Cited by

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