electrostatic precipitator

A device which separates particles from a gas stream by passing the carrier gas between pairs of electrodes across which a unidirectional, high-voltage potential is placed. The particles are charged before passing through the field and migrate to an oppositely charged electrode. These devices are very efficient collectors of small particles, and their use in removing particles from power plant plumes and in other industrial applications is widespread.

Source:

PAC, 1990, 62, 2167 (Glossary of atmospheric chemistry terms (Recommendations 1990)) on page 2186