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(54) Title: COVERING WIDE AREAS WITH IONIZED GAS STREAMS

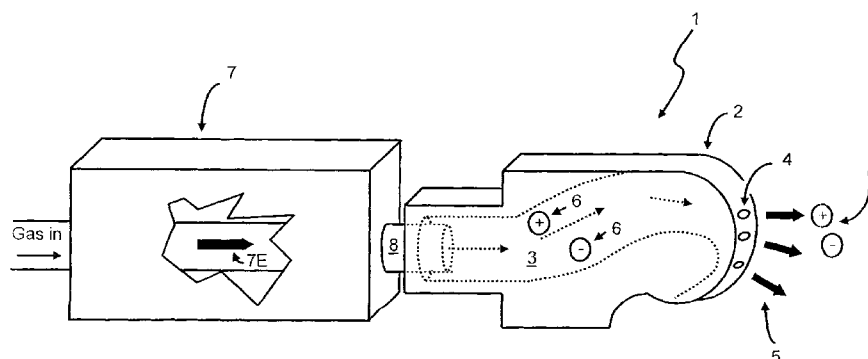


Figure 1

(57) Abstract: Ion delivery manifolds with a gas transport channel, for receiving an ionized gas stream, and plural outlets that divide the gas stream into plural neutralization gas streams that are directed toward respective plural target regions are disclosed. At least generally equal ion distribution across the target regions is achieved by using different ion flow rates through the plural outlets. Methods of delivering plural neutralization streams to respective plural target regions include steps for receiving an ionized gas stream, for dividing the ionized gas stream into plural neutralization streams, and for directing the neutralization streams toward respective target regions. At least generally equal ion distribution across the target regions is achieved by differing the ion flow rates of the neutralization streams.