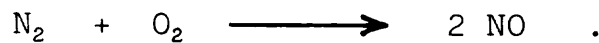


A constricted arc cooled by a chemically reacting gas

H. Krüger

A constricted arc was developed for providing a better recycling of thermal energy inside the discharge system. Instead of extracting the whole energy by strong water cooling, the system is cooled by the reacting gas itself which is blown in and out between two alternating constrictor plates. The discharge energy is partially recycled from the exhausting hot gas through the metallic constrictor plates to the fresh gas. The contribution will further be concerned with the technical construction, the way of operation and some measurements for the special chemical reaction



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