

ABSTRACT OF THE DISCLOSURE

ELECTROLYTIC APPARATUS, SYSTEM AND METHOD FOR THE EFFICIENT PRODUCTION OF NITROGEN TRIFLUORIDE

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An electrolytic cell which is partitioned into one or more anode chambers and cathode chambers by one or more partition walls between each anode chamber and cathode chamber, wherein each anode chamber comprises one or more anodes comprising an inner surface and an outer surface, and each cathode chamber comprises one or more cathodes, wherein the anode chamber and the cathode chamber are configured such that any one of the one or more cathodes is adjacent to the outer surface of the one or more anodes and there is no cathode adjacent to the inner surface of the one or more anodes; a molten salt electrolyte surrounding the one or more anodes and the one or more cathodes; at least one anode gas outlet for withdrawing gas from the anode chamber; and at least one cathode gas outlet for withdrawing gas from the cathode chamber.

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Figure 1