

Abstract

An electrolytic cell that can be operated with ensured stability without causing an increase in electrolytic voltage includes a cathode frame with a cathode plate fixed to its inner surface, an anode frame with an anode plate fixed to its inner surface, an ion exchange membrane provided between the cathode frame and the anode frame, a cathode side fluid supply path for supplying a cathode side fluid to a cathode compartment defined between the cathode frame and the ion exchange membrane, a cathode side fluid discharge path for discharging the cathode side fluid from the cathode compartment, an anode side fluid supply path for supplying an anode side fluid to an anode compartment defined between the anode frame and the ion exchange membrane, and an anode side fluid discharge path for discharging the anode side fluid from the anode compartment. The cathode side fluid discharge path has an effective flow path cross-sectional area CD larger than an effective flow path cross-sectional area CS of the cathode side fluid supply path, and the anode side fluid discharge path has an effective flow path cross-sectional area AD larger than an effective flow path cross-sectional area AS of the anode side fluid supply path.

Fig 2