

IMPROVEMENTS IN ELECTROLYSIS SYSTEMS

ABSTRACT

A cell arrangement for the electrolysis of water to liberate hydrogen and oxygen gases is described. A cell unit (125) has a stacked arrangement of segmentation disks (114), a first type of (anode) cell plates (90), a second type of (cathode) cell plates (98) and separation membranes (116). Interconnecting conductive shafts (126-131) pass through holes (100,102) of the cell plates (90,98) to have selective electrical interconnection therewith. Water and electrolyte is supplied by inlet ports (108,110) to immerse the cell plates (90,98). The membranes (116) normally isolate adjacent cathode and anode plates (90,98) from the mixing of liberated oxygen and hydrogen gases whilst allowing ionic current flow. By selective adjustment of the water/electrolyte pressure differential on respective sides of the separation membranes (116), admixture of the liberated gases can be produced. The liberated gases discharge by outlet ports (104,106).

Fig. 14

This Sheet Has Been Replaced

