



especially with respect to iron, than is the present one. This work too, is in its infancy, but a patent application has recently been filed (7).

Conclusions

Despite their relatively high cost, the noble metals have an important role to play in the chloralkali industry. Nowadays graphite is rarely used as an anode material, having been almost totally superseded by titanium coated with a noble metal, usually ruthenium.

From a consideration of its low hydrogen overpotential and its chemical stability there has always been a possibility that platinum could be incorporated into a chloralkali cathode with advantage. The primary objective of this paper has been to show that this can now be done with economic benefit. The cathode coating developed by Johnson Matthey is currently being evaluated by several chloralkali plant manufacturers and it is expected that with increased poison resistance and an on-site

reactivation package the noble metal activated cathode will become an even more attractive option.

Acknowledgements

I would like to place on record my gratitude to my colleagues at the Johnson Matthey Research Centre for providing much of the technical information on which this article is based.

References

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Platinum in the Glass Industry

Equipment made from platinum has been in use for glass making for over 150 years, and in spite of the relatively high cost of the metal the remarkable properties of platinum and some of its alloys are still encouraging their greater use for the production of household and industrial glasses. A recent article outlines the areas where platinum is being used cost effectively (D. Böttger, *Glass*, 1985, 62, (5), 177-178). The production of lightweight or thin walled bottles is regarded as important to the competitiveness of glass as a container material for the packaging industry. For this application optimum thermal homogenisation of the melt is a necessity and this can be achieved by the use of platinum components at key locations in the equipment.

For the manufacture of liquid crystal display glass there is no substitute for platinum feeders. Using platinum discharge nozzles heated directly by electricity it is possible to produce glass plates of equivalent quality to optical glass, at a thickness of less than 0.5mm. Considered to have advantages over both cathode ray tubes and conventional plasma displays, the flat display screen is also made of very thin (0.3 to 0.5mm) plates of a special glass that can only be manufactured by the use of a directly heated platinum feeder.