DISCHARGE CHARACTERISTICS OF SOLID-STATE CONCENTRATION CELL WITH COBALT BRONZ ELECTRODES AND A SYNTHETIC CLAY ELECTROLYTE.

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A solid-state concentration cell employing a Li^+ ion conducting synthetic clay material as the electrolyte and cobalt bronz, Li_xCoO_2 as the electrode material has been fabricated and its discharge characteristics have been measured.

The synthetic clay material has an ionic conductivity of 1.15×10^{-2} (ohm cm^{-1}) at 300°C. The cell operating at 300°C has an open circuit voltage (V_{oc}) of 26.3 mV and a short circuit current (I_{sc}) of 28.8 A. The capacity of the cell was estimated 40 Ah.