



**Fig. 1** X-ray diffraction patterns of sample A ( $\text{IrO}_2\text{-Ta}_2\text{O}_5/\text{Ti}$  anode), sample B (pre-deposited  $\text{PbO}_2$  on  $\text{IrO}_2\text{-Ta}_2\text{O}_5/\text{Ti}$  anode prepared from acidic solutions), and sample C (pre-deposited  $\text{PbO}_2$  on  $\text{IrO}_2\text{-Ta}_2\text{O}_5/\text{Ti}$  anode prepared from alkaline solutions).

●:  $\text{IrO}_2$ ,  $\triangle$ : Ti, ●:  $\alpha\text{-PbO}_2$ , ○:  $\beta\text{-PbO}_2$ .