

Electronic supplementary information

**Synthesis of the perovskite-type oxyfluoride AgTiO_2F :
an approach adopting the HSAB principle**

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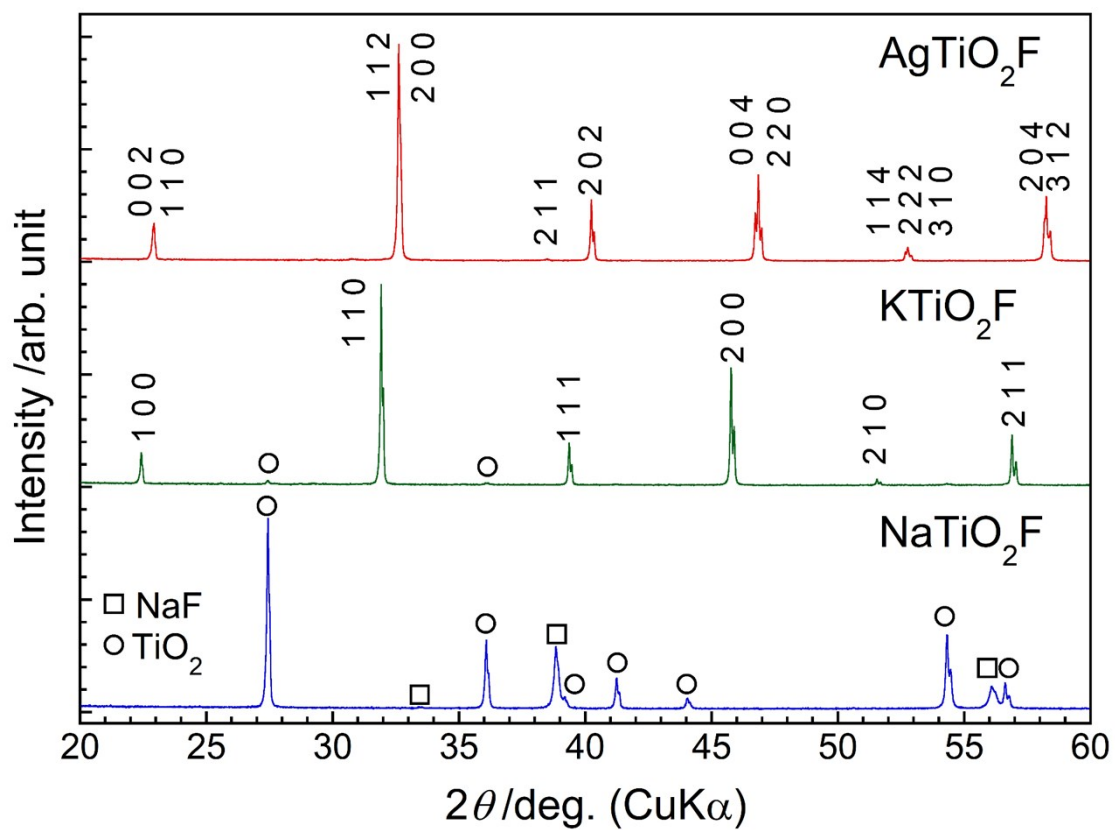


Fig. S1 Powder X-ray diffraction patterns of the obtained phases when synthesized at 1000 °C for 30 min under 4 GPa for ATiO₂F (A = Na, K, Ag).

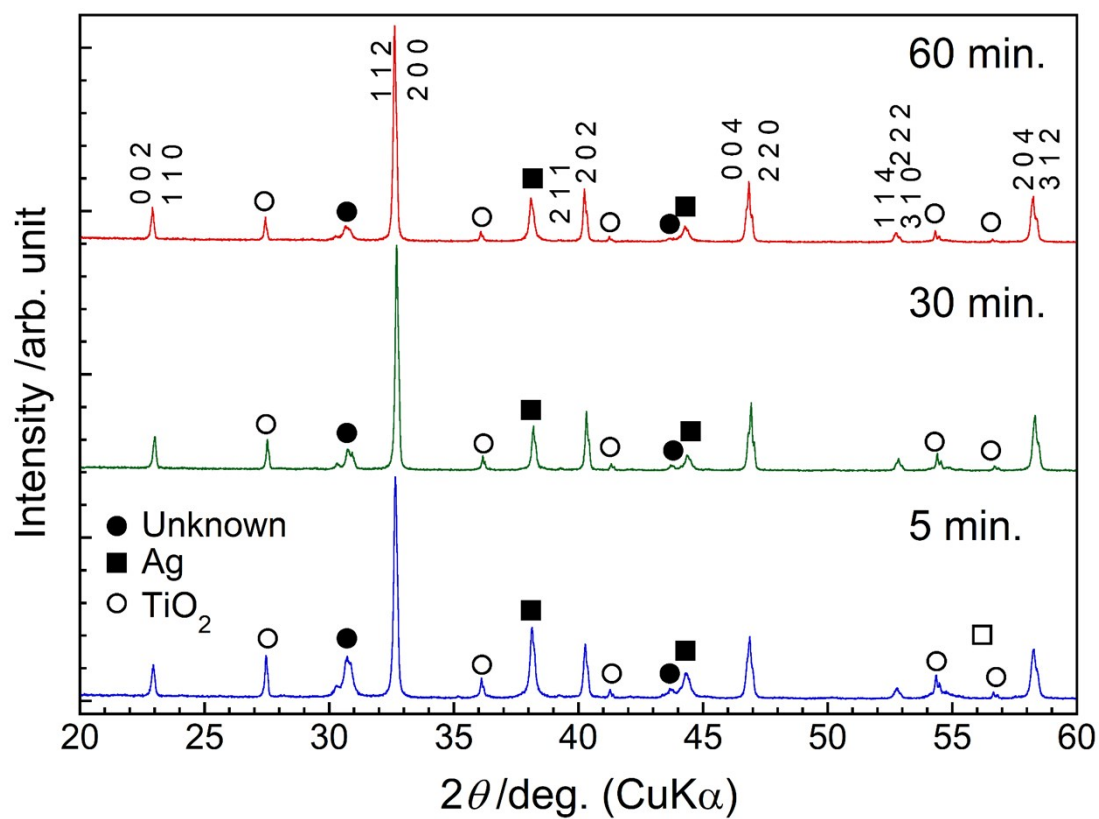


Fig. S2 Powder X-ray diffraction patterns of the obtained phases when synthesized at 500 °C for 5 min (a), 30 min (b), and 60 min (c) in a sealed tube for AgTiO₂F.