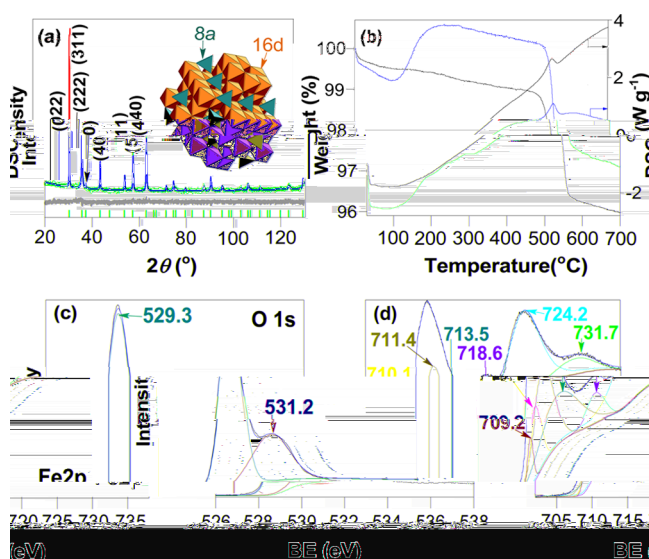


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[illegible]

2. EXPERIMENTAL SECTION

2.1. Sample Synthesis.

[illegible]

2.2. Material Characterization.

fl -6700 3.0
1 () (CA AB 250 A)
77
A A 2020 ().
() (D C)
(/D C 1,
10 °C -1 700 °C.

2.3. Electrochemical Characterization.

(60 %),
 (20 %), fl (20 %),
 910, A) N-
 (,) C (, 20 μ -
 1 6
 (C , C).
 2025-
 (99.9%, C C ,)
 (CB)
 (C 2001A,
 0.05-3 /
 (C) C
 (C)
 (C 660D) 0.05-3
 B C 10 CD

3. RESULTS AND DISCUSSION

A $\gamma^-_2 \mathbf{O}_3$ 1, $\gamma^-_2 \mathbf{O}_3$
 A $\mathbf{O}^{2-}$ $\mathbf{O}_4$ (32)
 $Fd\bar{3}m$ $3+$
 (16.) (8) (16.)
 (8) $5/3 \square_{1/3}$ $\mathbf{O}_4$ D $\mathbf{O}_4$ (C D-
 1513304) $Fd\bar{3}m$ $3+$ 16.
 0.8358 (1),
 (0.833),
 0.1642.
 ($a = 0.8346$)
 $\mathbf{O}_4$ ($a = 0.840$).
 $\mathbf{O}-\mathbf{O}$ $23,24$
 $\gamma^-_2 \mathbf{O}_3$ $\mathbf{O}_4$ $\gamma^-_2 \mathbf{O}_3$
 ()
 $\mathbf{O}_4$ $\gamma^-_2 \mathbf{O}_3$ A 2, 595
 $^{-1}$ 800 $^{-1}$,
 $^{-1}$ $^{-1}$
 $\mathbf{O}_h$ 630 550
 $^{-1}$ $^{-1}$
 $25,26$
 D C (1)
 200 315 °C

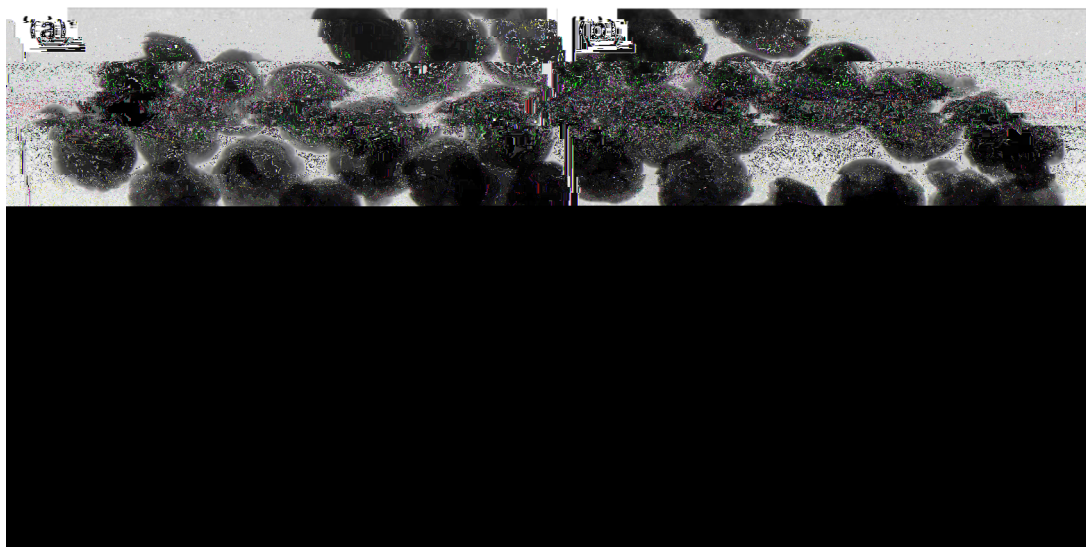


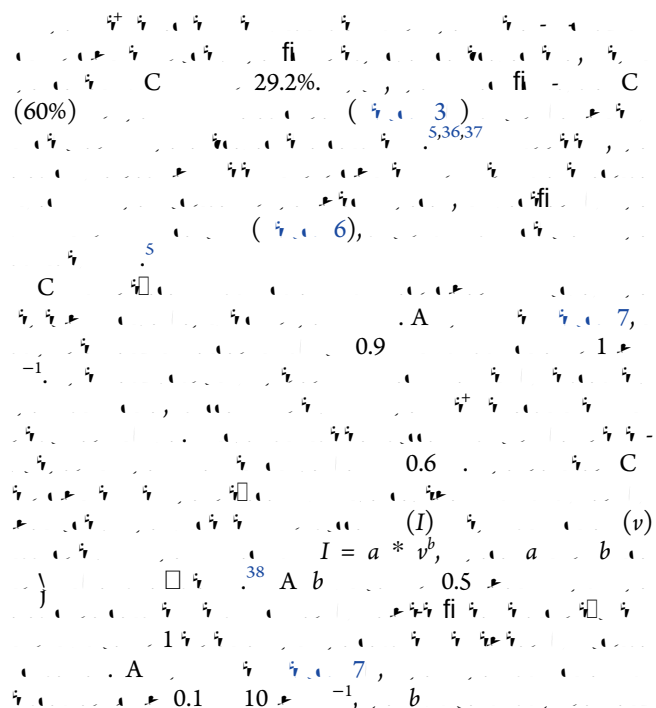
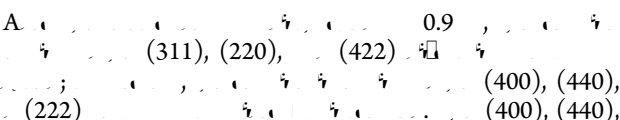
Figure 2. $\frac{1}{2} \leq \alpha \leq 1$, $\frac{1}{2} \leq \beta \leq 1$, $\frac{1}{2} \leq \gamma \leq 1$, $\frac{1}{2} \leq \delta \leq 1$, $\frac{1}{2} \leq \epsilon \leq 1$, $\frac{1}{2} \leq \zeta \leq 1$, $\frac{1}{2} \leq \eta \leq 1$, $\frac{1}{2} \leq \theta \leq 1$, $\frac{1}{2} \leq \iota \leq 1$, $\frac{1}{2} \leq \kappa \leq 1$, $\frac{1}{2} \leq \lambda \leq 1$, $\frac{1}{2} \leq \mu \leq 1$, $\frac{1}{2} \leq \nu \leq 1$, $\frac{1}{2} \leq \xi \leq 1$, $\frac{1}{2} \leq \omicron \leq 1$, $\frac{1}{2} \leq \pi \leq 1$, $\frac{1}{2} \leq \rho \leq 1$, $\frac{1}{2} \leq \sigma \leq 1$, $\frac{1}{2} \leq \tau \leq 1$, $\frac{1}{2} \leq \upsilon \leq 1$, $\frac{1}{2} \leq \phi \leq 1$, $\frac{1}{2} \leq \chi \leq 1$, $\frac{1}{2} \leq \psi \leq 1$, $\frac{1}{2} \leq \omega \leq 1$, $\frac{1}{2} \leq \varphi \leq 1$, $\frac{1}{2} \leq \eta \leq 1$, $\frac{1}{2} \leq \theta \leq 1$, $\frac{1}{2} \leq \iota \leq 1$, $\frac{1}{2} \leq \kappa \leq 1$, $\frac{1}{2} \leq \lambda \leq 1$, $\frac{1}{2} \leq \mu \leq 1$, $\frac{1}{2} \leq \nu \leq 1$, $\frac{1}{2} \leq \xi \leq 1$, $\frac{1}{2} \leq \omicron \leq 1$, $\frac{1}{2} \leq \pi \leq 1$, $\frac{1}{2} \leq \rho \leq 1$, $\frac{1}{2} \leq \sigma \leq 1$, $\frac{1}{2} \leq \tau \leq 1$, $\frac{1}{2} \leq \upsilon \leq 1$, $\frac{1}{2} \leq \phi \leq 1$, $\frac{1}{2} \leq \chi \leq 1$, $\frac{1}{2} \leq \psi \leq 1$, $\frac{1}{2} \leq \omega \leq 1$, $\frac{1}{2} \leq \varphi \leq 1$.



Figure 3.

100 μ A cm^{-1} () C cm^{-1} 0.05–3.0 cm^{-1} fi cm^{-1} fi
; () C C cm^{-1} $\square$ cm^{-1} (C) 140 cm^{-1} ; ()
fi () 2 , () 30 , () 140
; () cm^{-1} (BC) cm^{-1} (CC)
 $\square$ cm^{-1} 140 cm^{-1}

Figure 4.



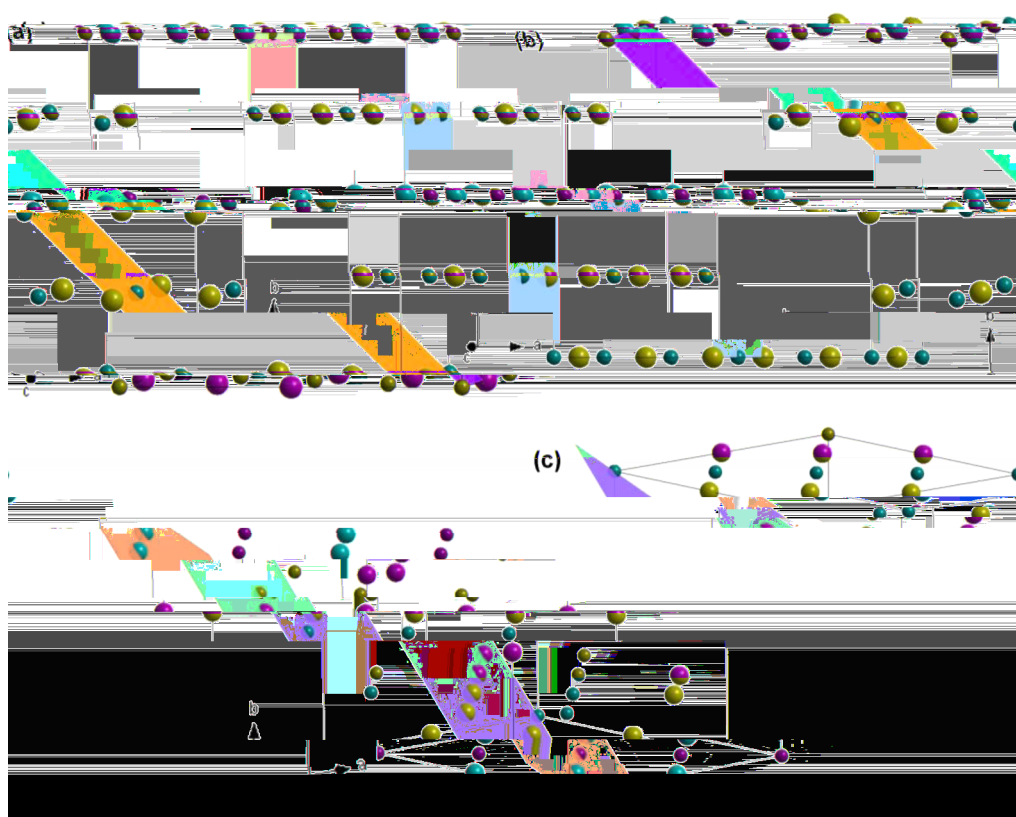


Figure 5. () (400), () (440), () (222) γ - O_3 , $\text{Fd}\bar{3}m$ 16 ;

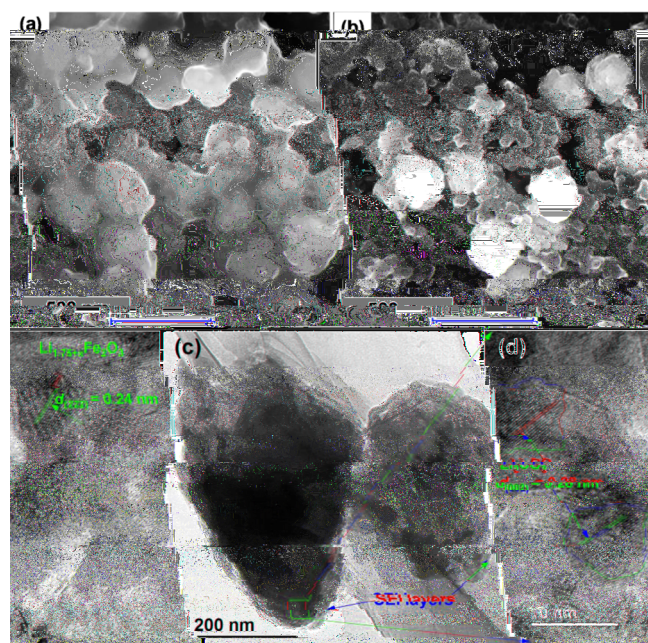
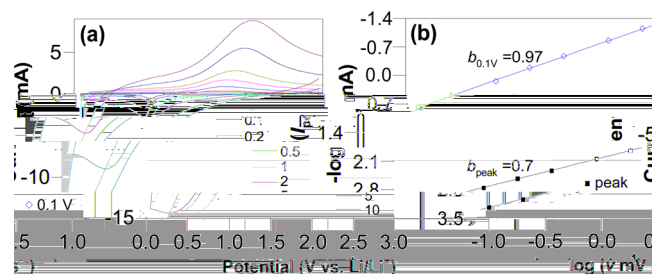
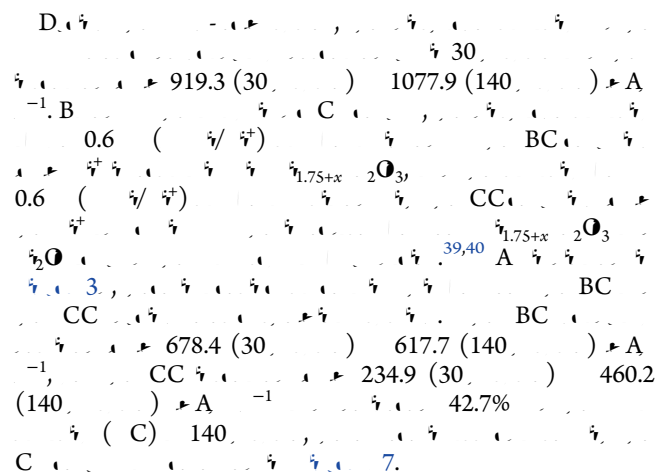


Figure 6.

[illegible]

- [illegible]