

線分析用リチウム 次電池評価セルの開発

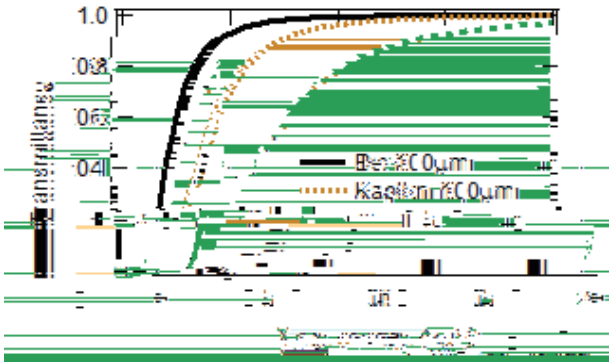
は

線分析用その場充 電セルの開発

X  
X  
X

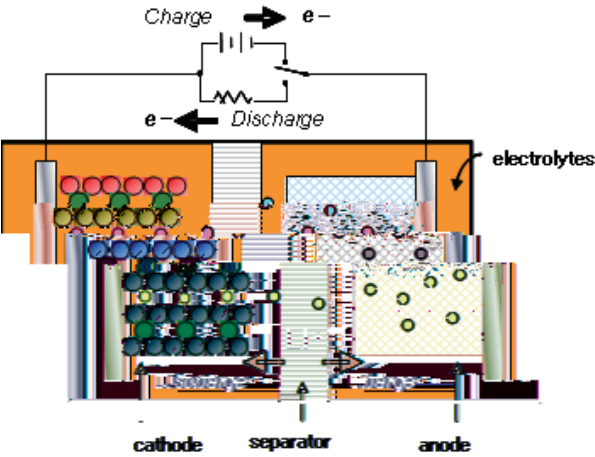
X  
X

2  
X  
20keV  
5μm  
7keV  
X



1)

X



2.  
X  
3

#2400  
Li  
Ti  
POM

5μm SUS304

1. 2



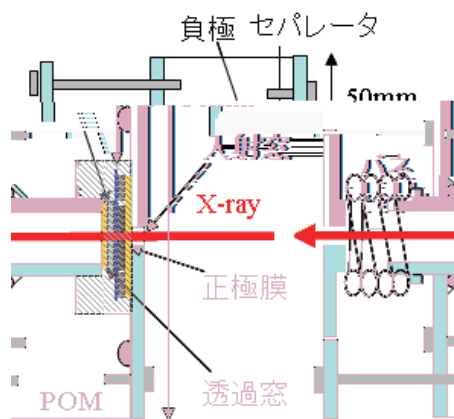
10mm

5 kgG

Ar

OCV

LNCO  $\text{LiNi}_{0.84}\text{Co}_{0.16}\text{O}_2$



3. X

2

## 実験

セルの作成と充放電シ



結果

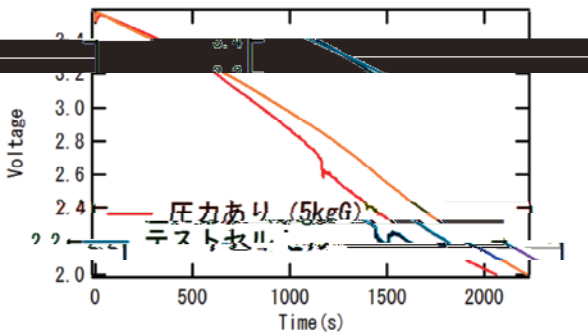
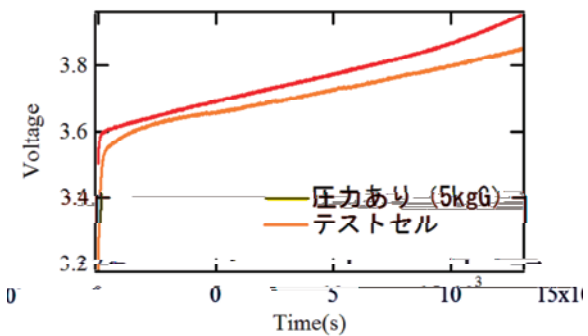
充放電性能の評価

6

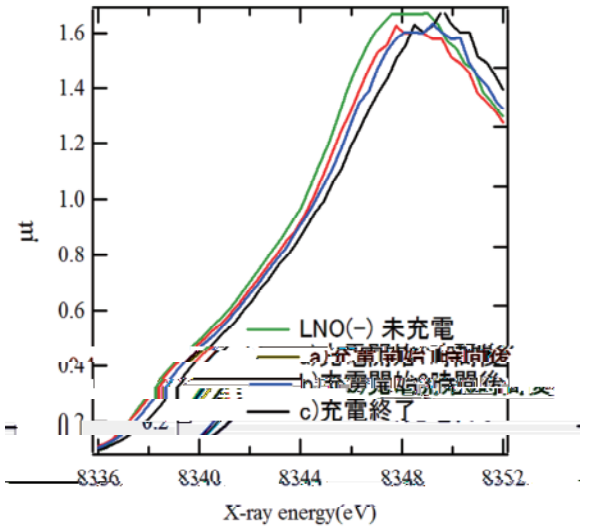
0.4 mA

1k

HS

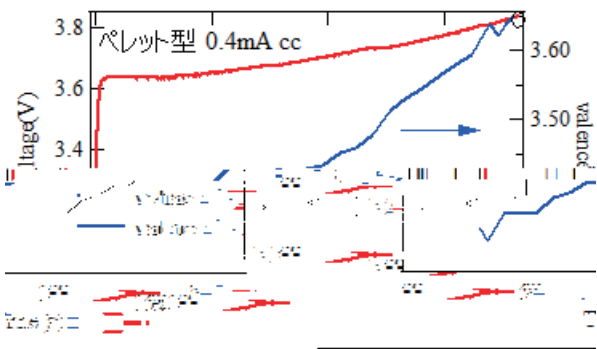


6.



7.

K X



8.

充放電時におけるニッケルの価数変化

7

Ni K XAFS

Li LNCO Ni

3

4

2

NiO

2

1

1.5eV



## 謝辞

M2

XAFS

KEK-PF

JASRI

## 参考文献

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- 2) M. Balasubramanian, X. Sun, X. Q. Yang and J. McBreen, *J. Electrochem. Soc.*, 147, 2903 (2000).
- 3) A. N. Mansor, J. McBreen and C. A. Melendres, *J. Electrochem. Soc.*, 146, 2799 (1999).