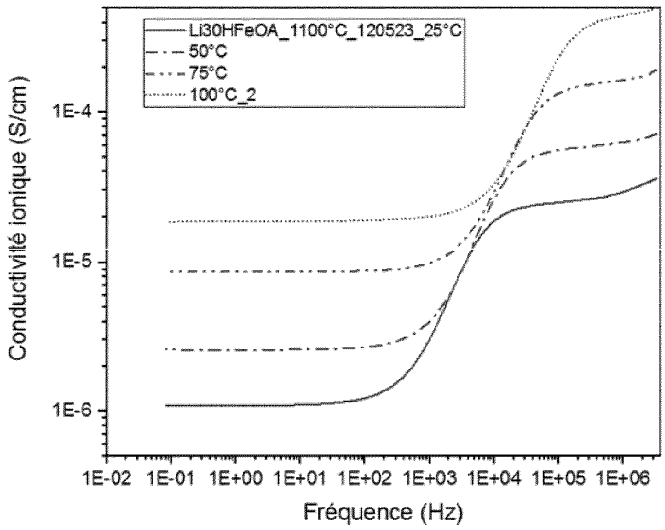
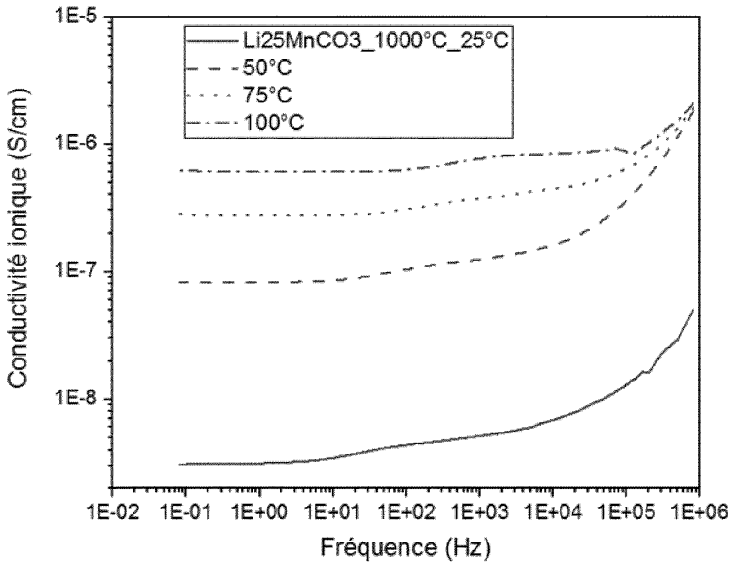
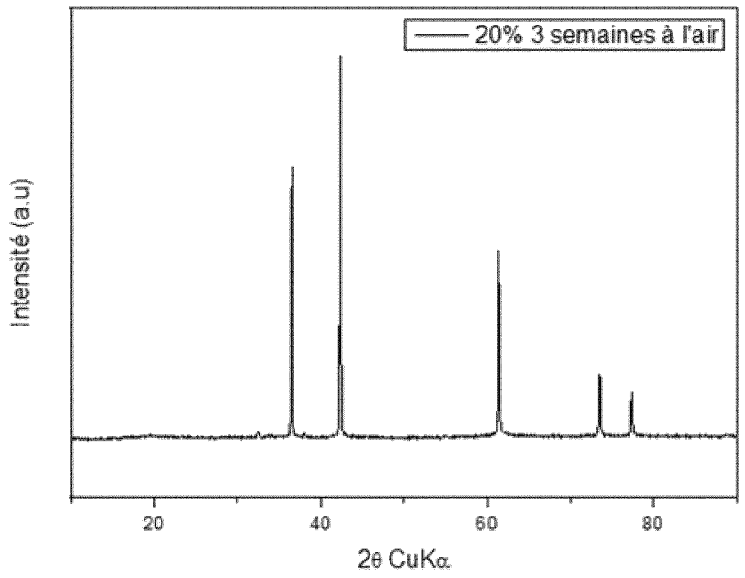
[Fig 1]

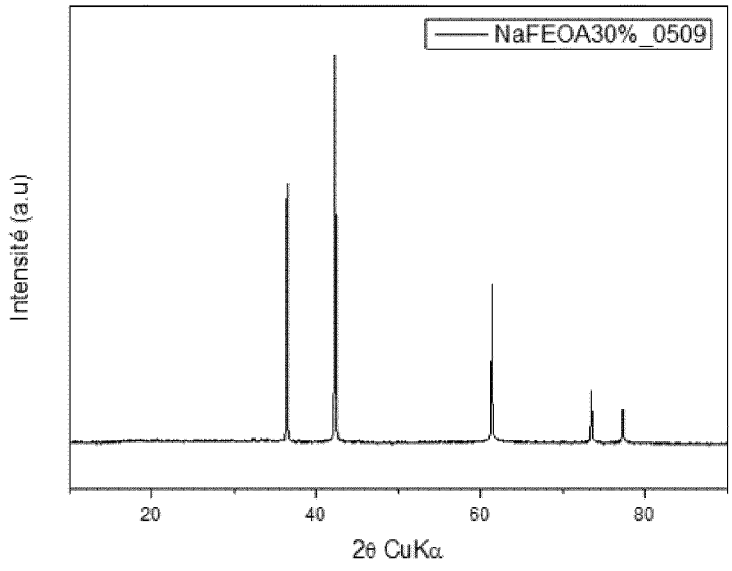

Li30HFeOA_1100°C_120523_25°C
50°C
75°C
100°C_2
Conductivité ionique (S/cm)
1E-4
1E-5
1E-6
1E-02 1E-01 1E+00 1E+01 1E+02 1E+03 1E+04 1E+05 1E+06
Fréquence (Hz)

[Fig 2]

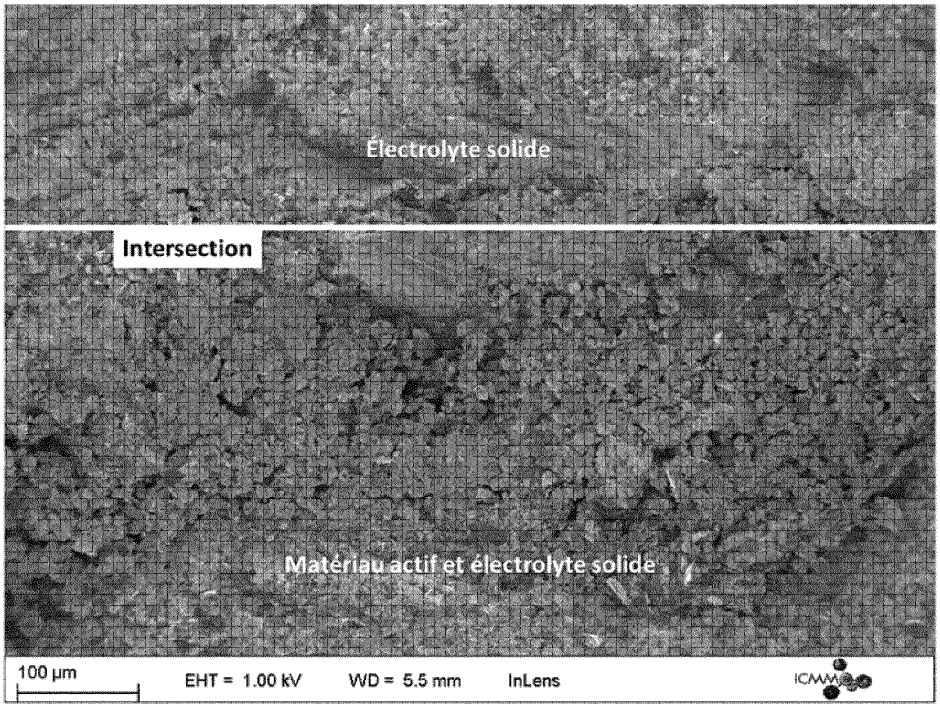

Li25MnCO3_1000°C_25°C
50°C
75°C
100°C
Conductivité ionique (S/cm)
1E-5
1E-6
1E-7
1E-8
1E-02 1E-01 1E+00 1E+01 1E+02 1E+03 1E+04 1E+05 1E+06
Fréquence (Hz)

[Fig 3]

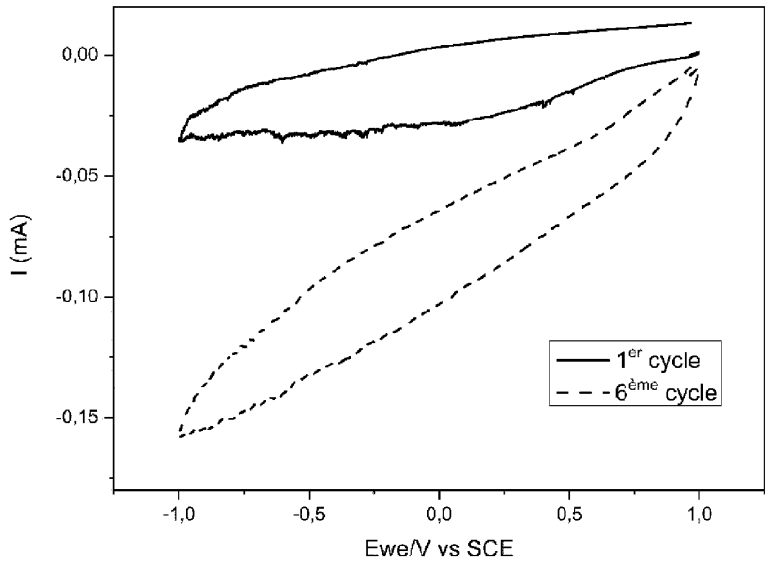

20% 3 semaines à l'air
Intensité (a.u)
20
40
60
80
2θ CuKα


NaFEOA30%_0509
Intensité (a.u)
20
40
60
80
2θ CuKα

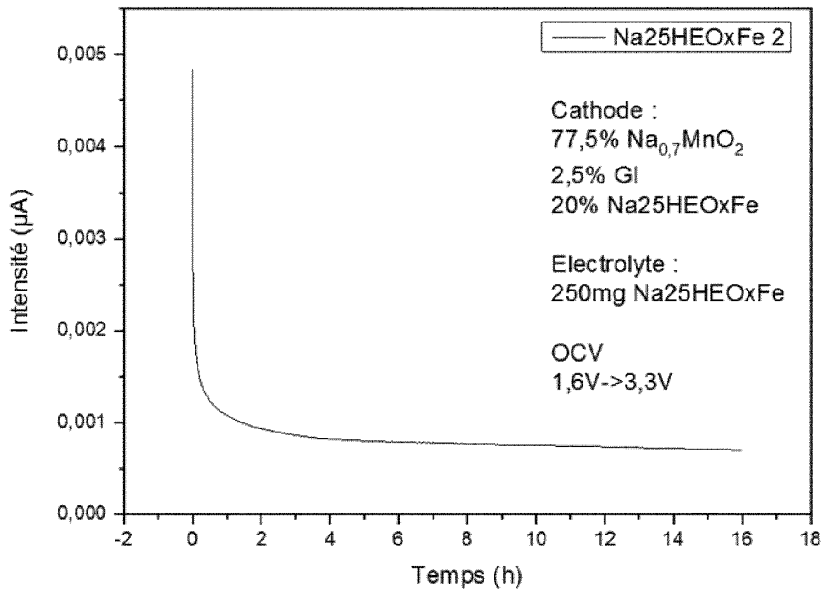
[Fig 4]


Électrolyte solide
Intersection
Matériau actif et électrolyte solide
100 µm
EHT = 1.00 kV
WD = 5.5 mm
InLens

[Fig 5]

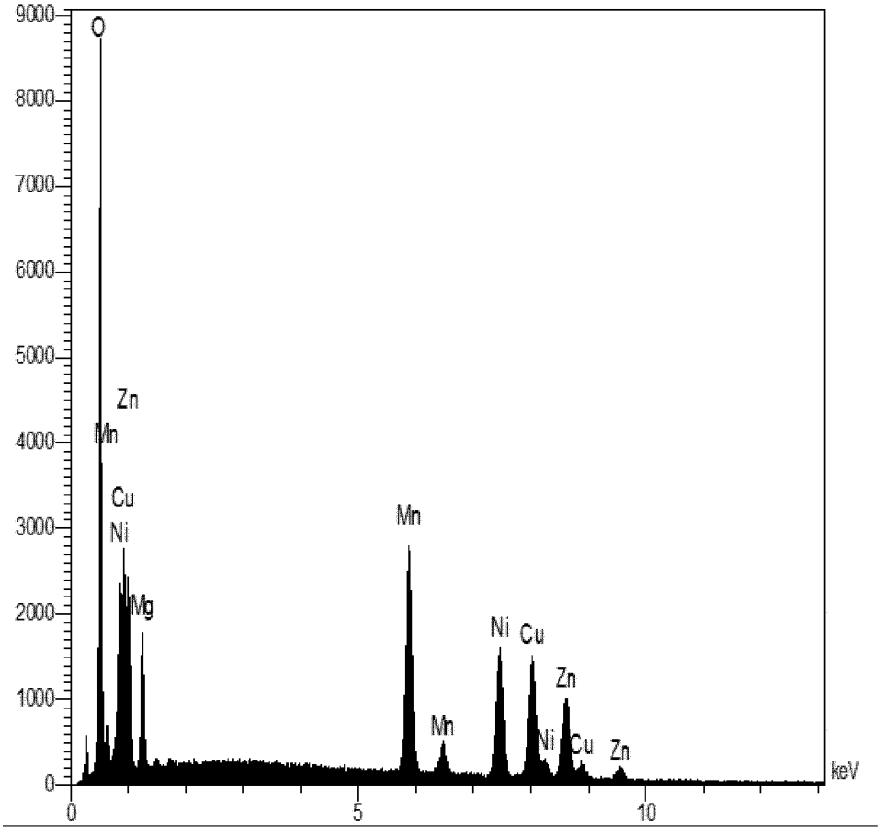


[Fig 6]

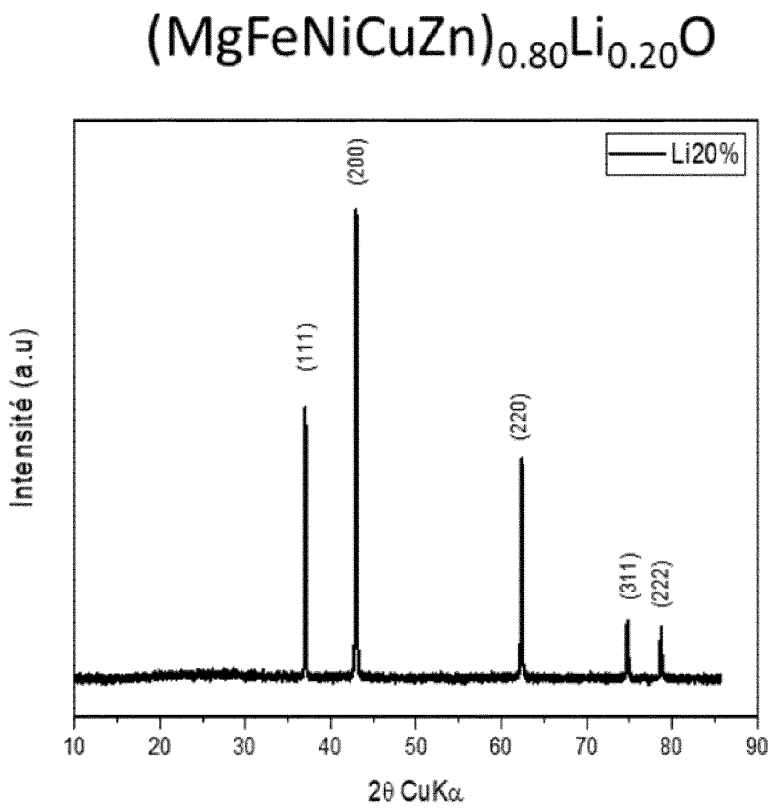


Courbe de charge d'une batterie tout solide avec Na25% HEOx FeO

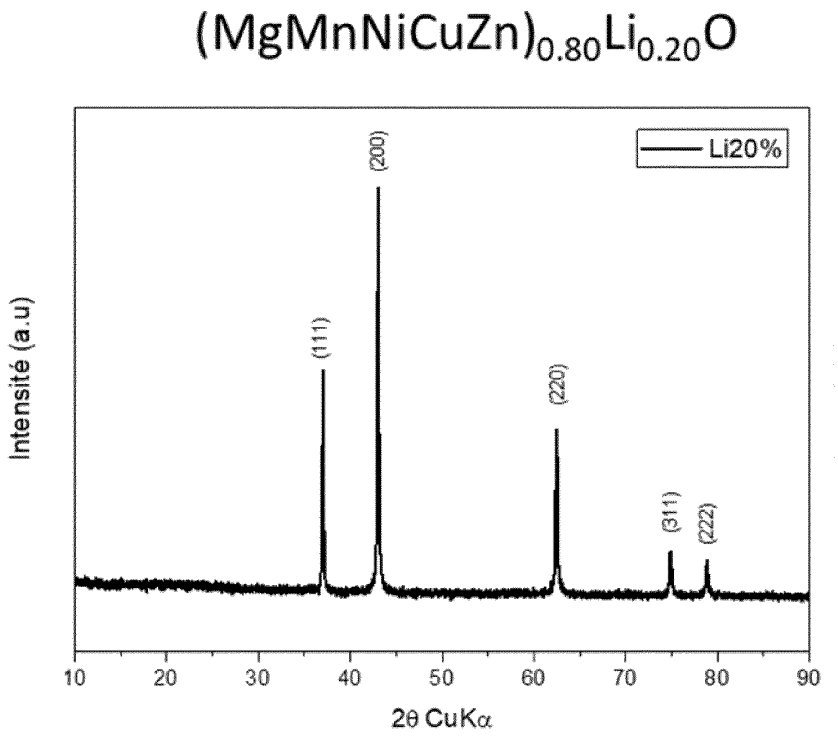
[Fig 7]


9000
8000
7000
6000
5000
4000
3000
2000
1000
0
O
Zn
Mn
Cu
Ni
Mg
Mn
Mn
Ni
Cu
Zn
Ni
Cu
Zn
keV
0
5
10

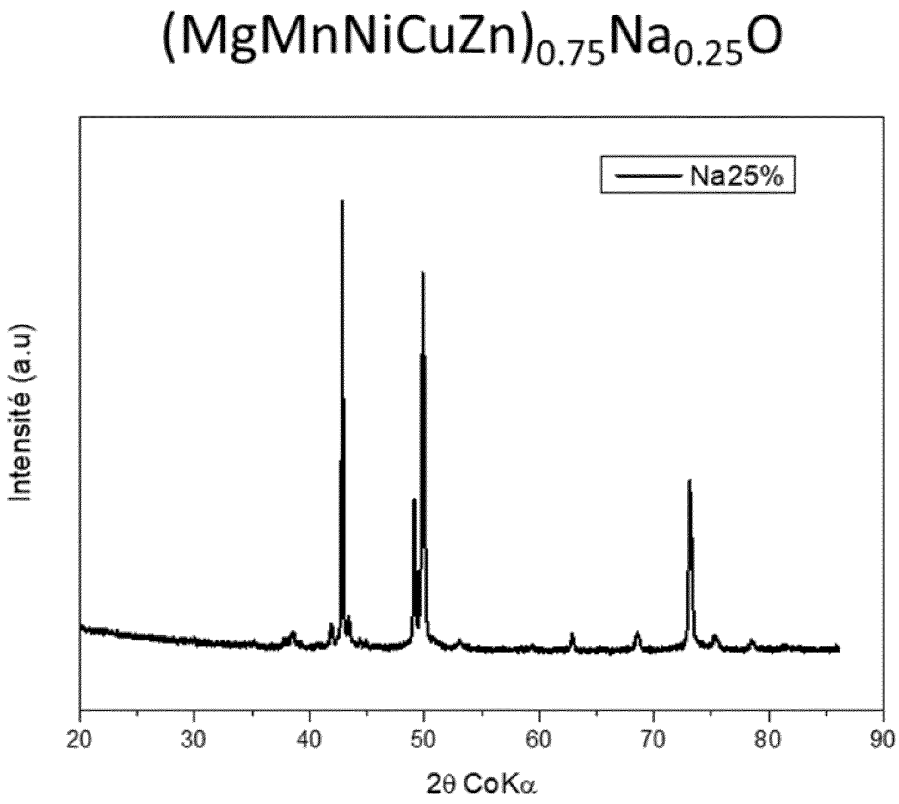
[Fig.8(a)]


(MgFeNiCuZn)0.80Li0.20O
Li20%
(200)
(111)
(220)
(311)
(222)
Intensité (a.u)
10
20
30
40
50
60
70
80
90
2θ CuKα

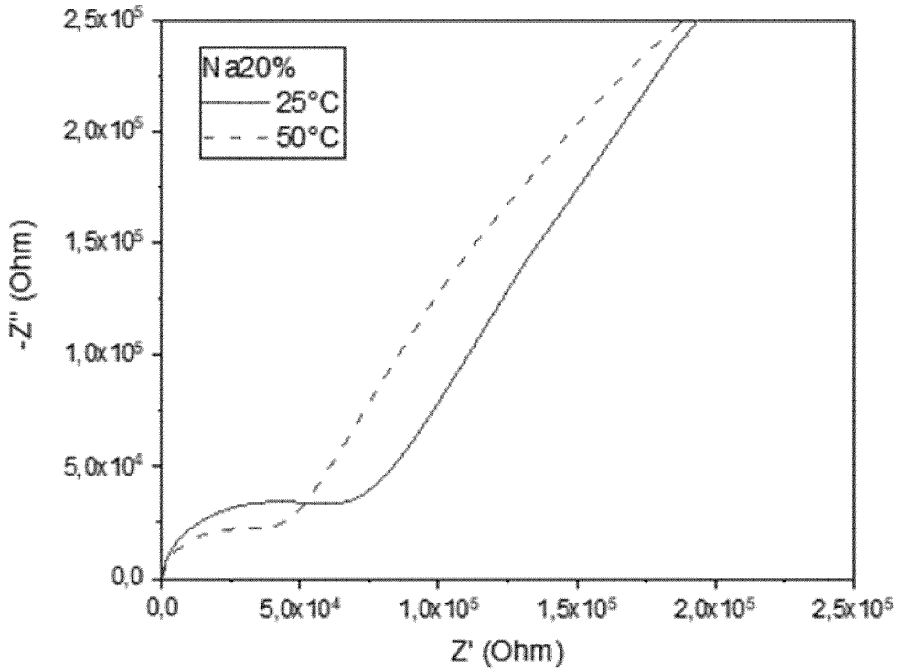
[Fig.8(b)]


(MgMnNiCuZn)0.80Li0.20O
Li20%
(200)
(111)
(220)
(311)
(222)
Intensité (a.u)
10
20
30
40
50
60
70
80
90
2θ CuKα

[Fig.8(c)]


(MgMnNiCuZn)0.75Na0.25O
Na25%
Intensité (a.u)
20
30
40
50
60
70
80
90
2θ CoKα

[Fig.9]


Na20%
25°C
50°C
-Z'' (Ohm)
Z' (Ohm)
0,0
5,0x10⁴
1,0x10⁵
1,5x10⁵
2,0x10⁵
2,5x10⁵
5,0x10⁴