Supplementary Information:

Emergence of High-Temperature Superconducting Phase in Pressurized La₃Ni₂O₇ Crystals

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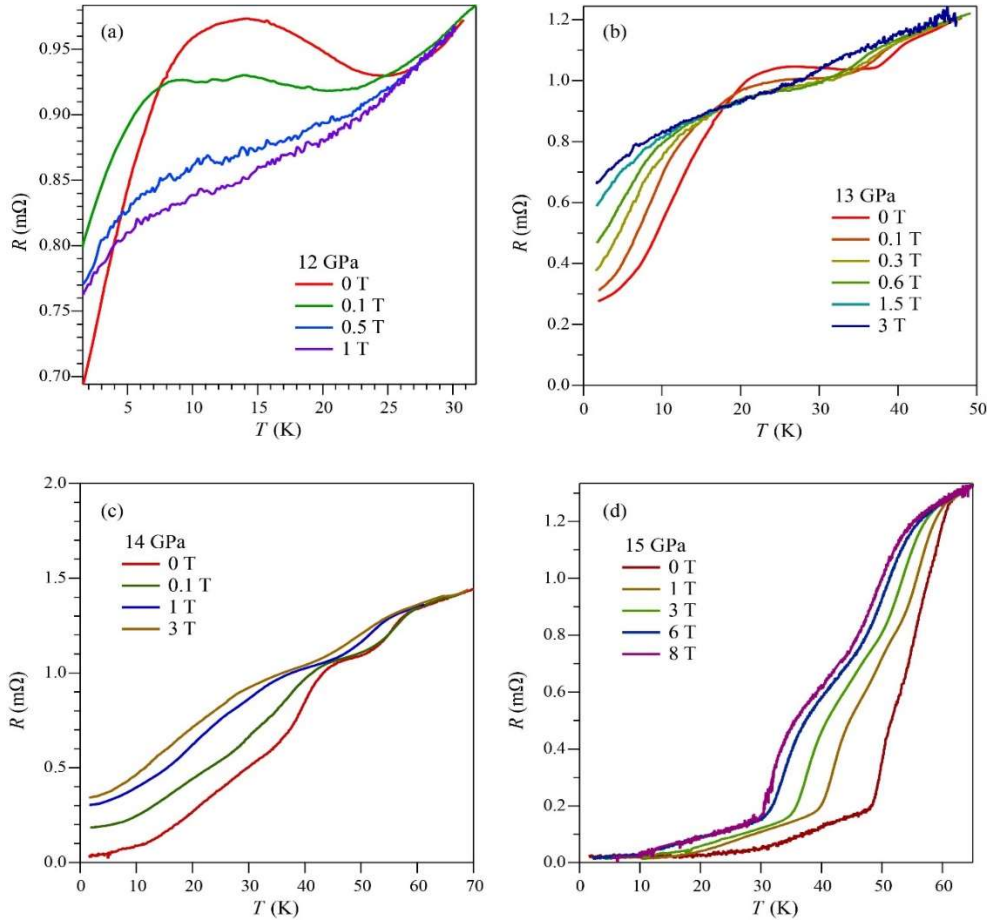
Figure S1 The low-temperature resistance of $La_3Ni_2O_7$ (sample 2) under different magnetic fields at: (a) 12 GPa; (b) 13 GPa; (c) 14 GPa; (d) 15 GPa measured in CAC.

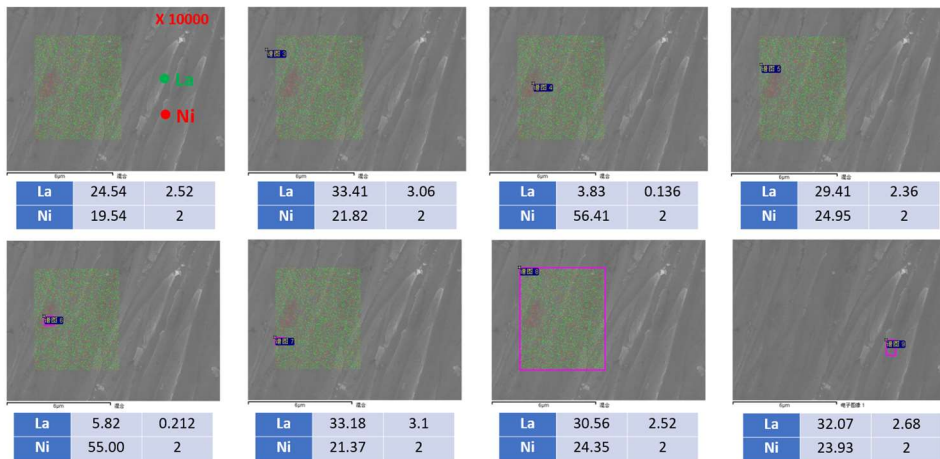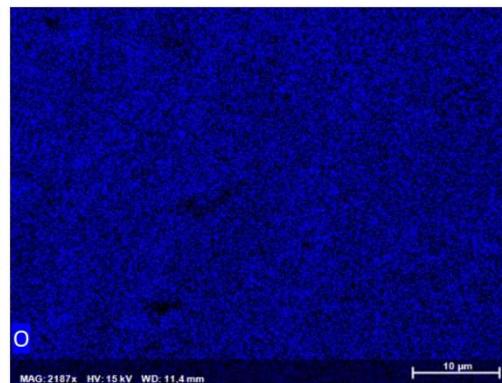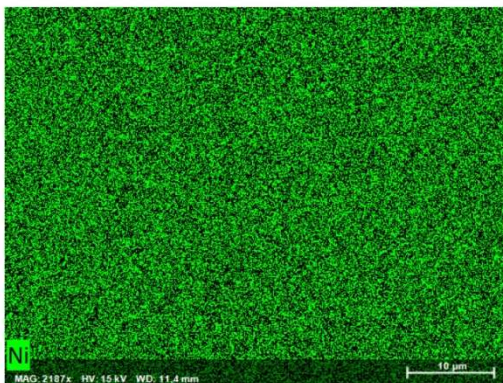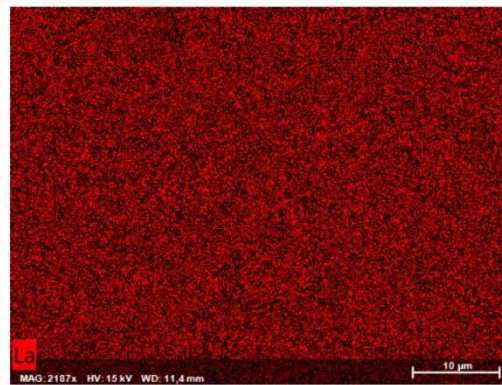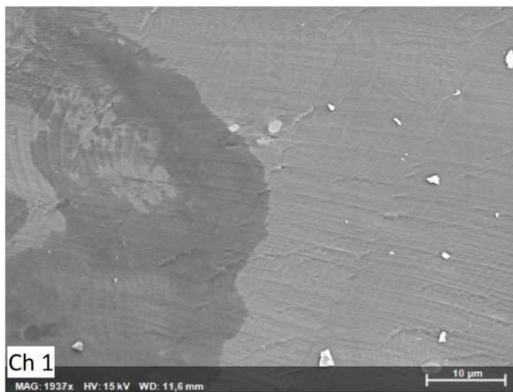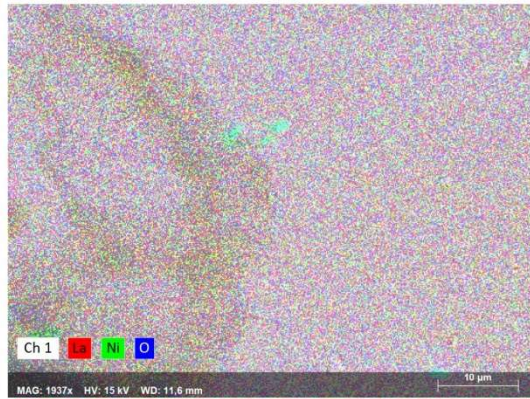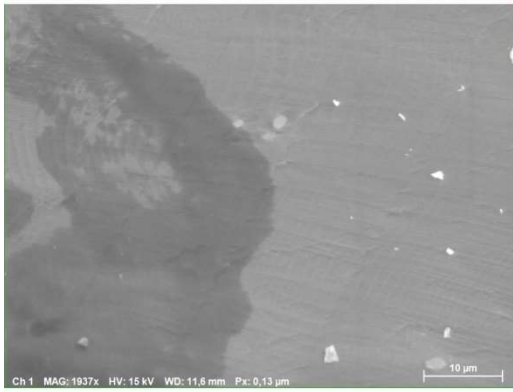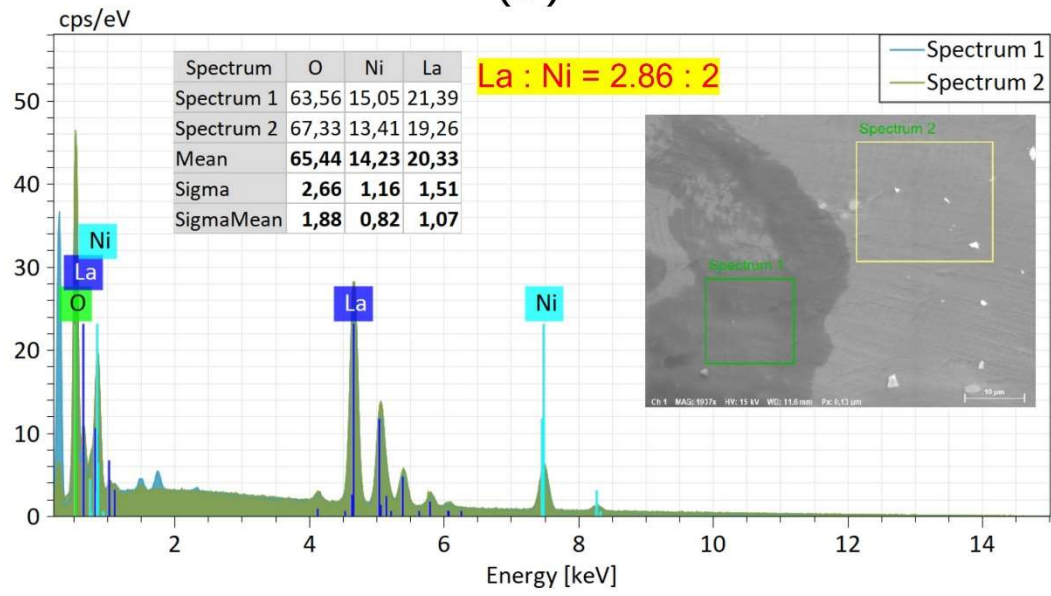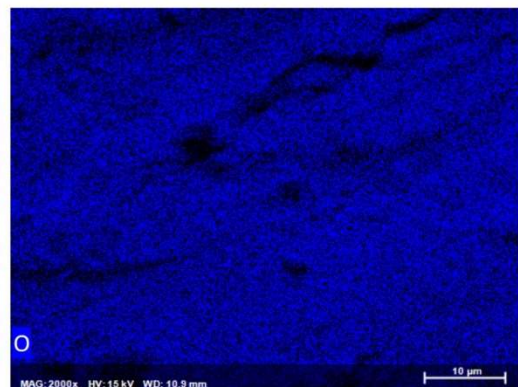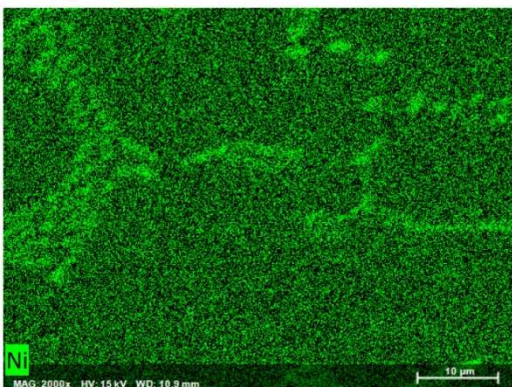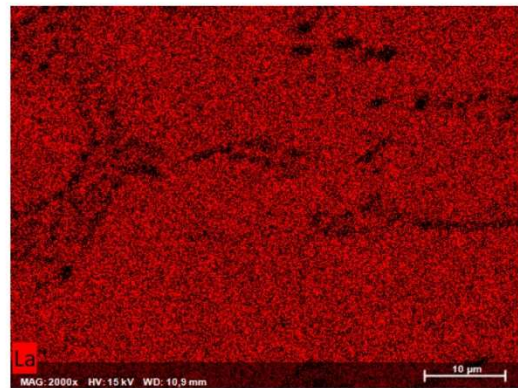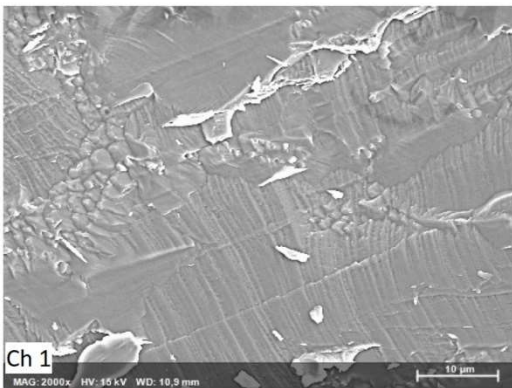**Figure S2** The SEM-EDX results on the sample 2 after decompression.

(a)

(b)

(c)

Spectrum	O	Ni	La
Spectrum 1	68,07	12,91	19,01
Spectrum 2	67,44	13,43	19,13
Mean	**67,76**	**13,17**	**19,07**
Sigma	**0,45**	**0,37**	**0,08**
SigmaMean	**0,32**	**0,26**	**0,06**

La : Ni = 2.90 : 2
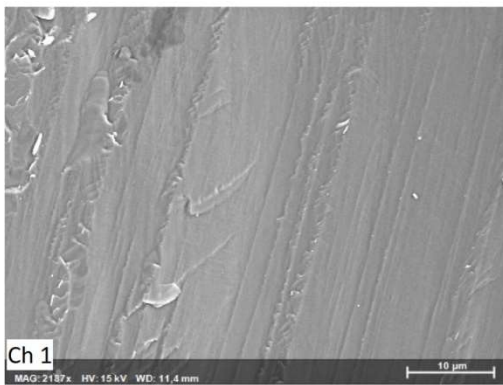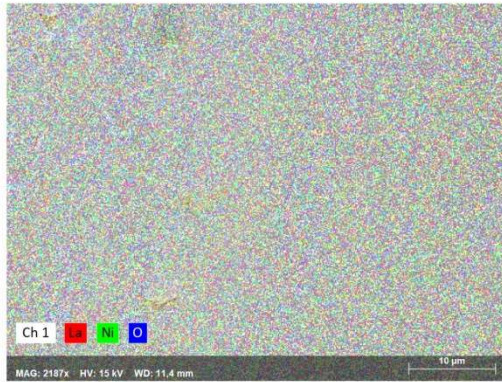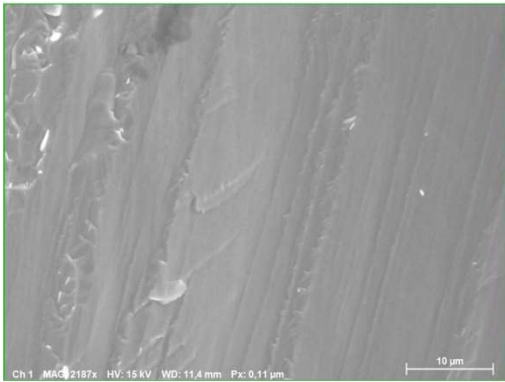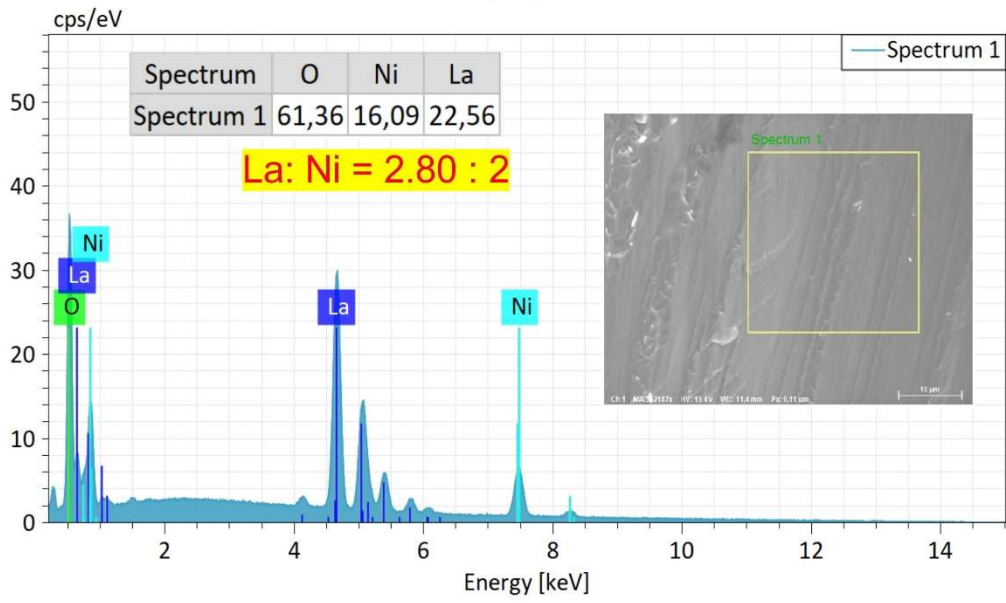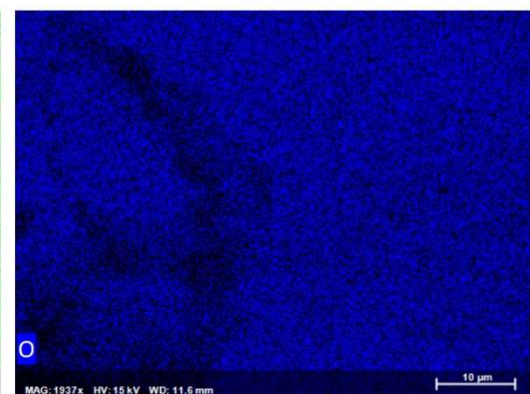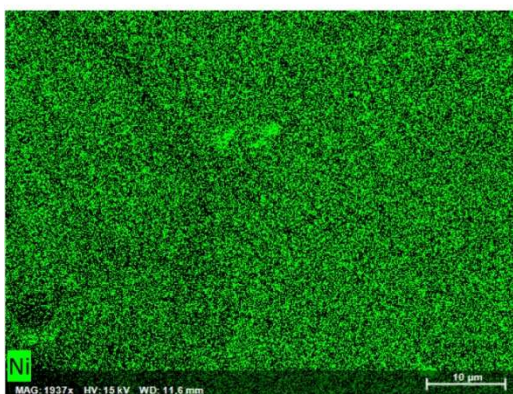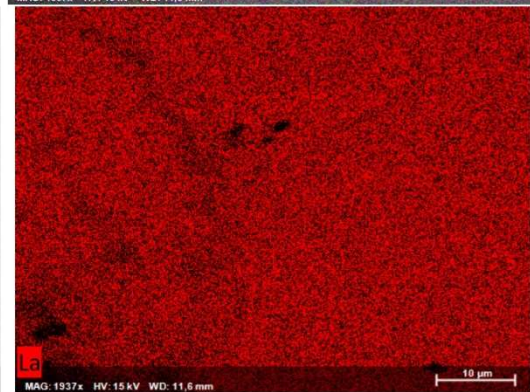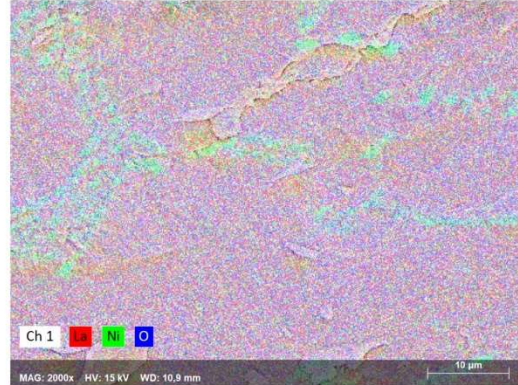
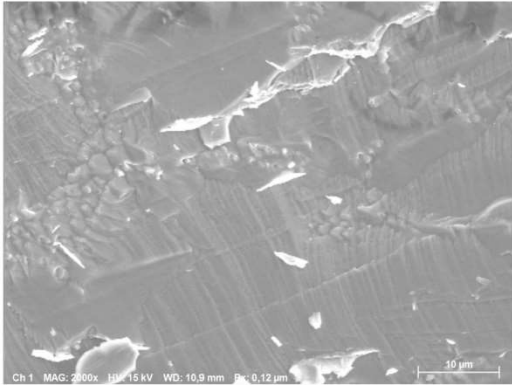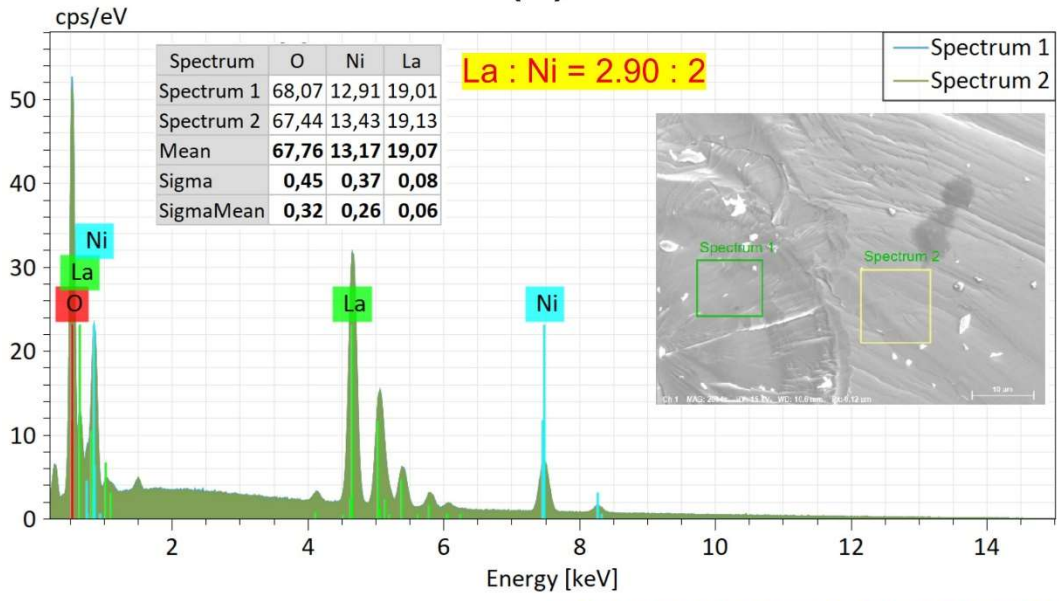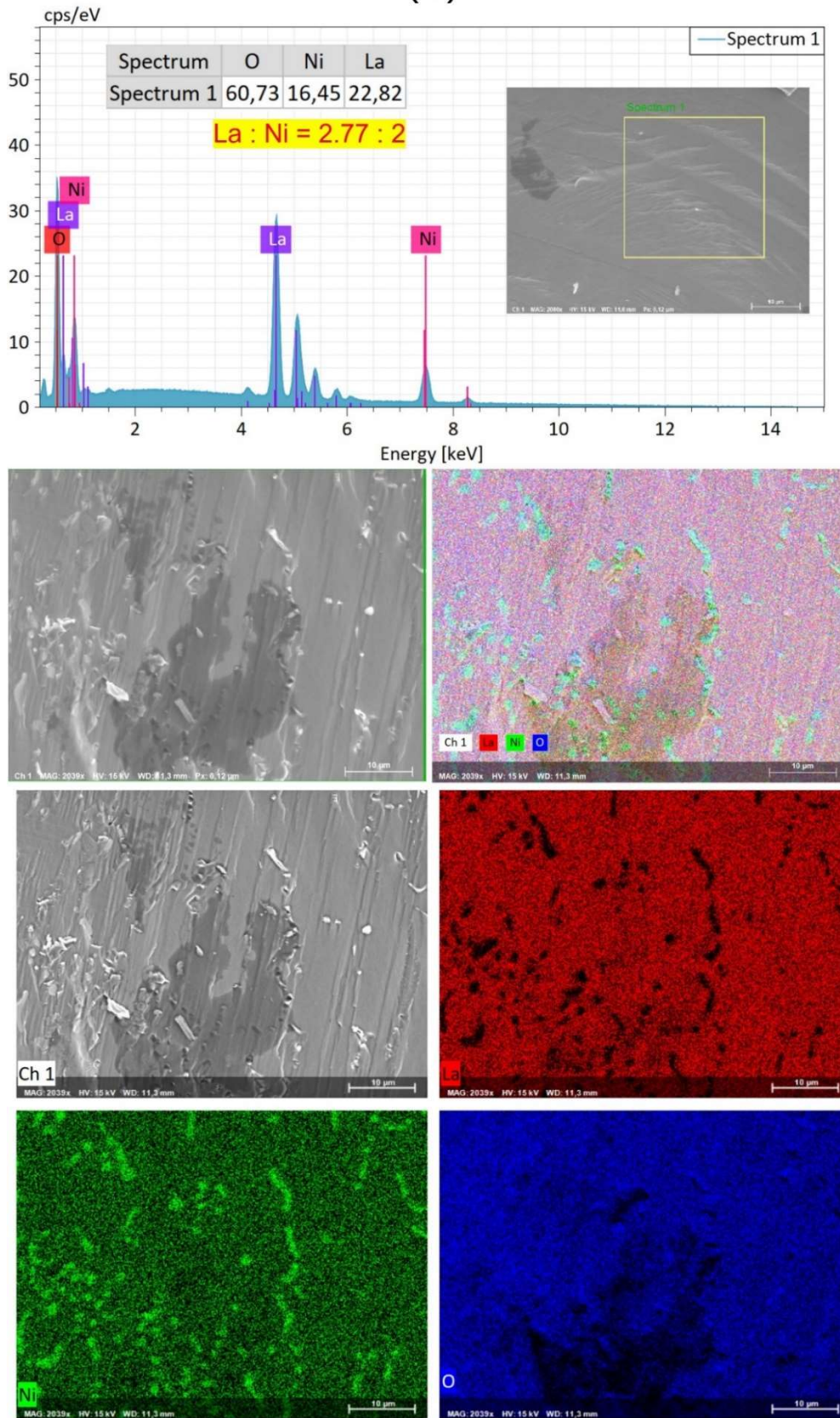**Figure S3(a-d)** The SEM-EDX results on the samples from the same batch as the sample 3.