

Supplementary material for

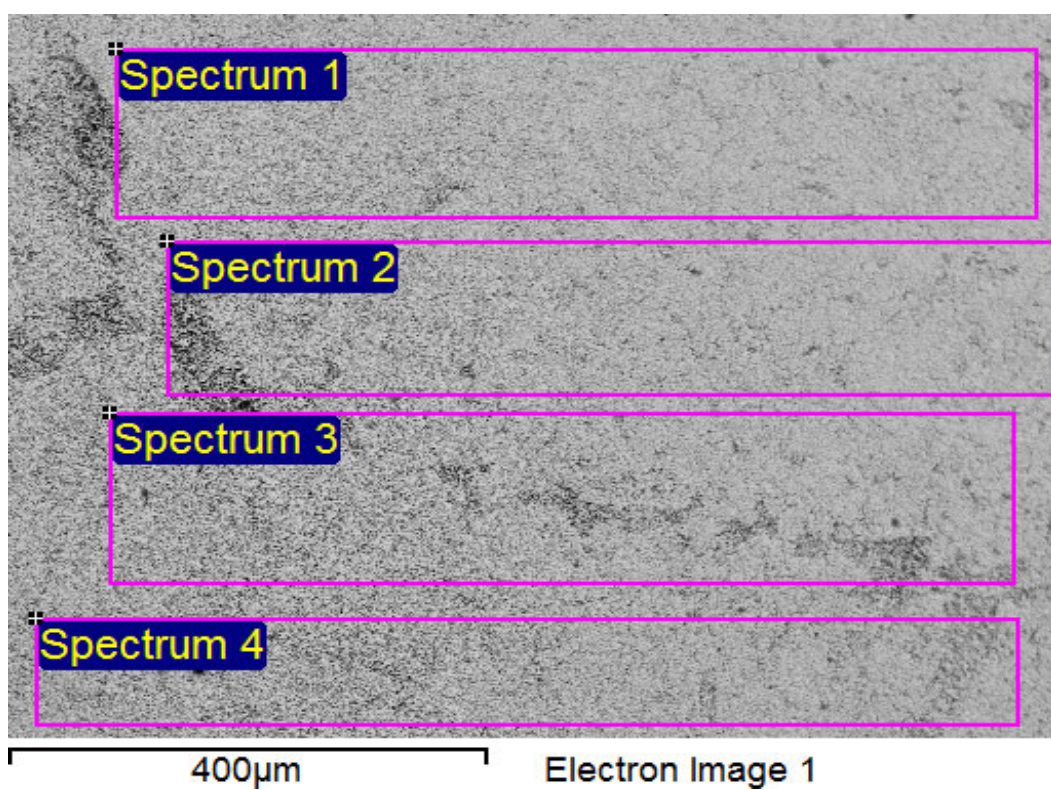
## **Characterization of metallic interconnects extracted from Solid Oxide Fuel Cell stacks operated up to 20000 hours in real life conditions: the air side**

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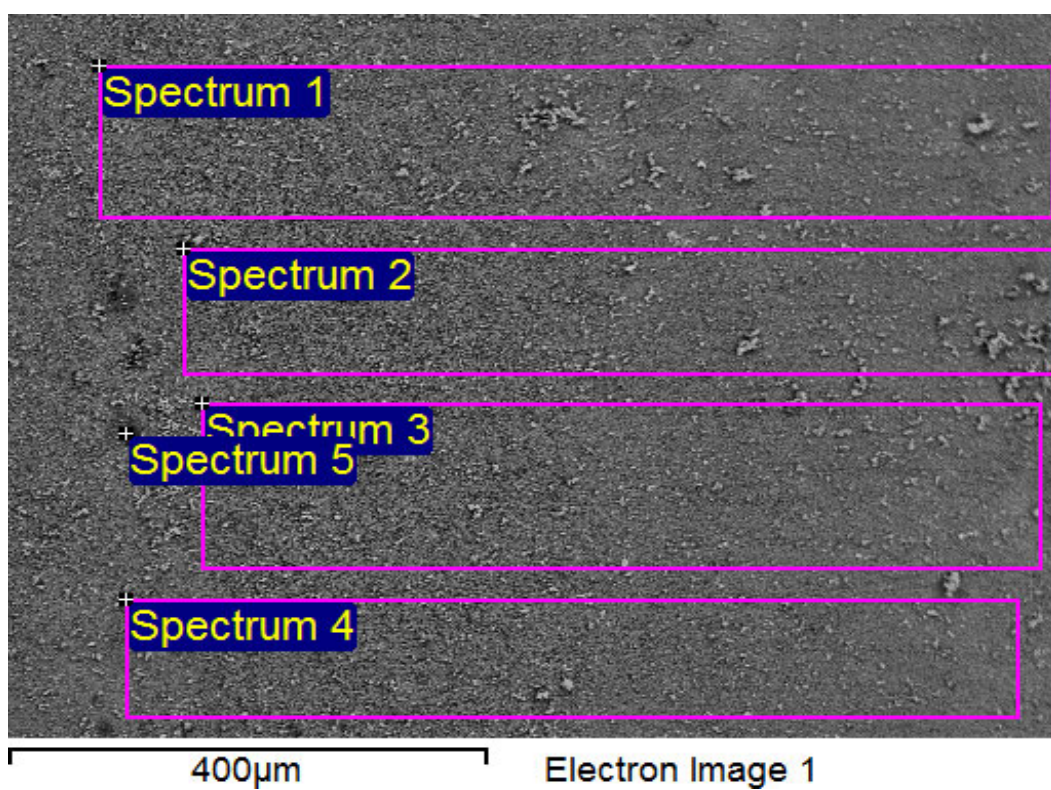
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| Spectrum   | O    | Cr   | Mn   | Fe   | Co  | Sr  | La   |
|------------|------|------|------|------|-----|-----|------|
| at. %      |      |      |      |      |     |     |      |
| Spectrum 1 | 64.4 | <LOD | 15.6 | <LOD | 1.6 | 3.5 | 15.3 |
| Spectrum 2 | 64.5 | <LOD | 15.6 | <LOD | 1.7 | 3.3 | 15   |
| Spectrum 3 | 64   | <LOD | 15.7 | <LOD | 1.6 | 3.5 | 15.3 |
| Spectrum 4 | 63.8 | <LOD | 15.8 | <LOD | 1.7 | 3.6 | 15.4 |

Figure S1. SEM micrograph and EDS analyses of the rib of the 20000h OUT. The presence of the LSCM contacting paste is highlighted by the results.



| Spectrum   | O     | Cr   | Mn    | Fe   | Co    |
|------------|-------|------|-------|------|-------|
| Spectrum 1 | 60.02 | 1.11 | 17.36 | 2.99 | 18.51 |
| Spectrum 2 | 60.43 | 1    | 17.48 | 2.72 | 18.37 |
| Spectrum 3 | 60.64 | 1.05 | 17.18 | 3.09 | 18.04 |
| Spectrum 4 | 58.97 | 1.07 | 18    | 3.15 | 18.81 |
| Spectrum 5 | 64.13 | 1.27 | 16.13 | 2.4  | 16.06 |

Figure S2. SEM micrograph and EDS analyses of the valley of the 20000 h OUT. The presence of a modified CMO coating is highlighted by the results.

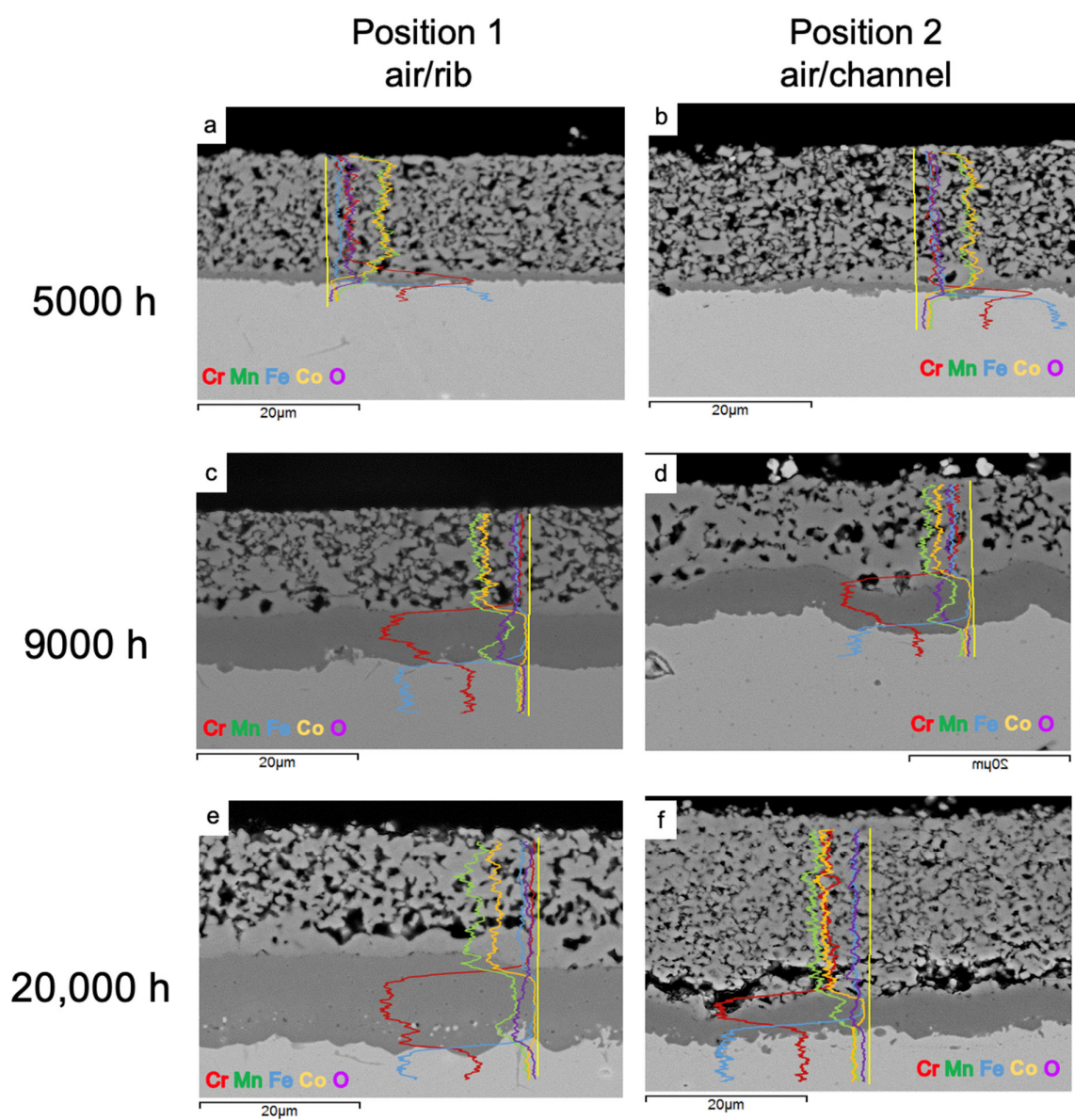


Figure S3. SEM-BSE micrographs at 5000x with linescan analyses also displayed in Figure 4.