

# Supplementary Materials: Influence of Heat Treatment on the Corrosion Behavior of Electrodeposited CoCrFeMnNi High-Entropy Alloy Thin Films

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**Citation:** Popescu, A.-M.J.; Branzoi, F.; Burada, M.; Atkinson, I.; Constantin, I.; Moreno, J.C.; Miculescu, F.; Mitrica, D.; Badea, I.-C.; Olaru, M.T.; et al. Influence of Heat Treatment on the Corrosion Behavior of Electrodeposited CoCrFeMnNi High-Entropy Alloy Thin Films. *Coatings* **2022**, *12*, 1108. <https://doi.org/10.3390/coatings12081108>

Academic Editor: Heping Li

Received: 23 June 2022

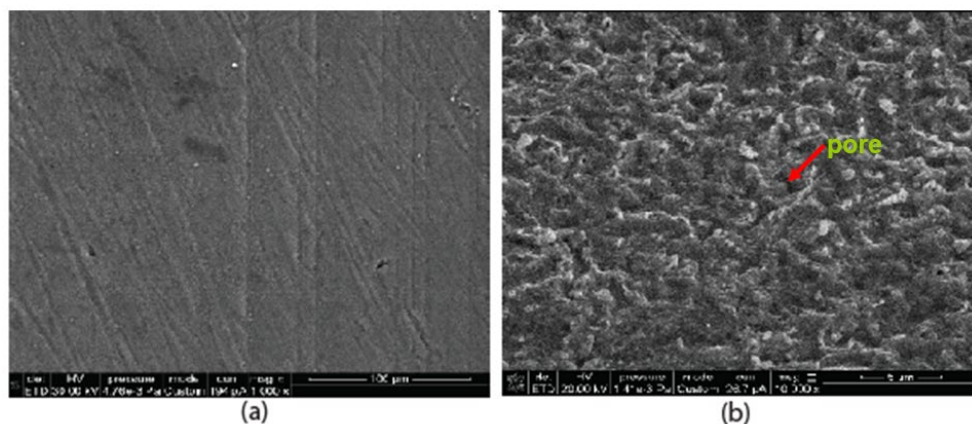
Accepted: 1 August 2022

Published: date

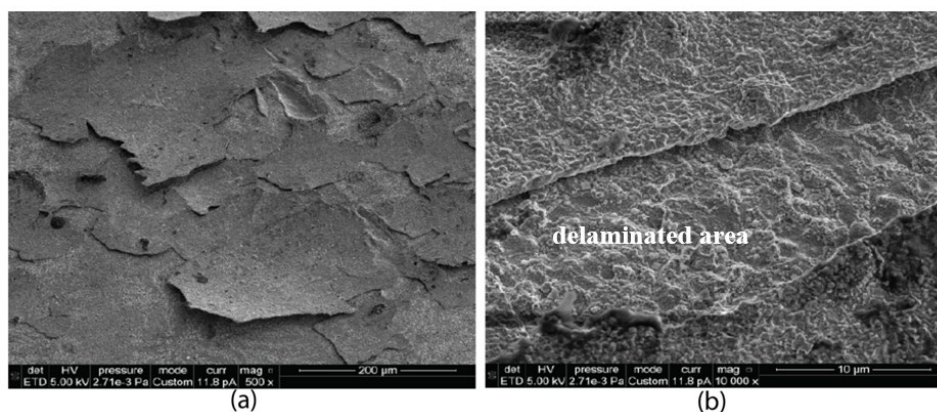
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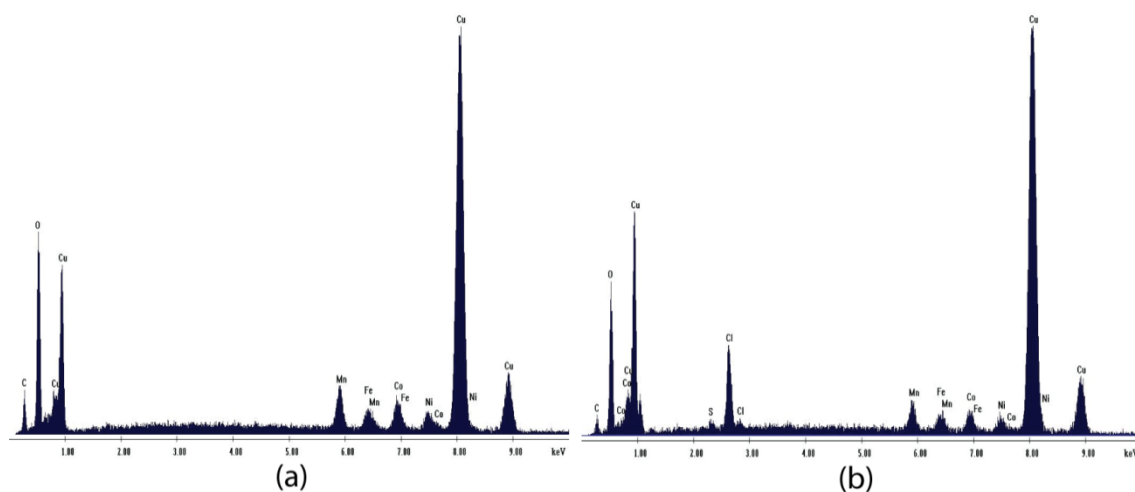
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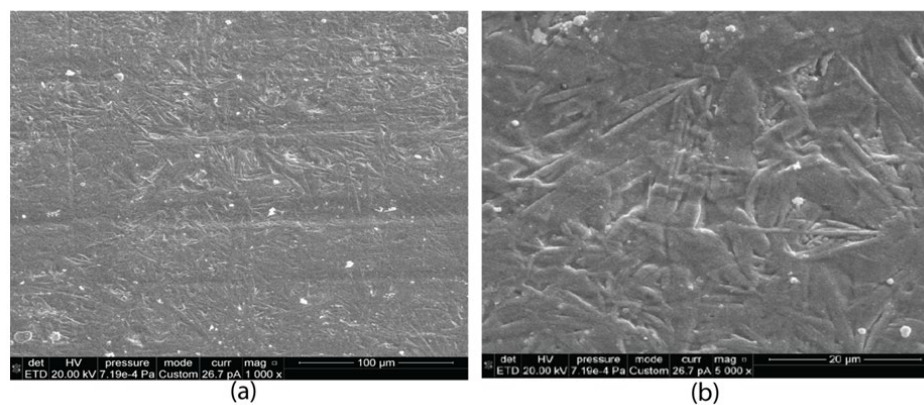
**Figure S1.** SEM morphology of the equimolar film CoCrFeMnNi electrodeposited and heat treated, sample 1HT: (a)  $\times 1,000$ ; (b)  $\times 10,000$ .



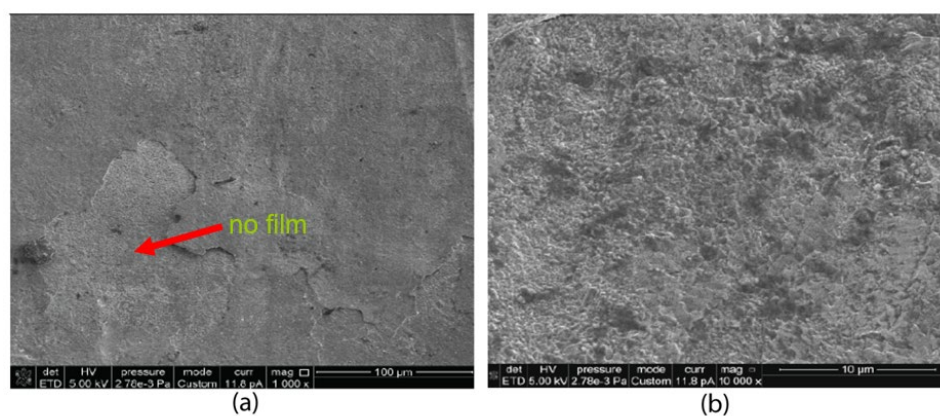
**Figure S2.** SEM morphology of the equimolar film CoCrFeMnNi sample 1HT corroded in artificial seawater: (a)  $\times 1,000$ ; (b)  $\times 10,000$ .



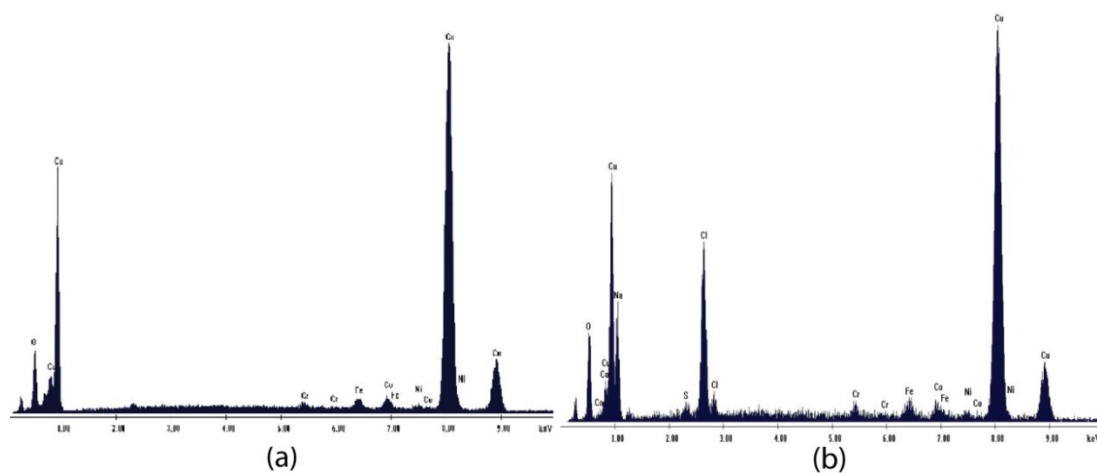
**Figure S3.** EDS spectra for the CoCrFeMnNi alloy, sample 1HT, in the initial stage (a) and after corrosion (b).



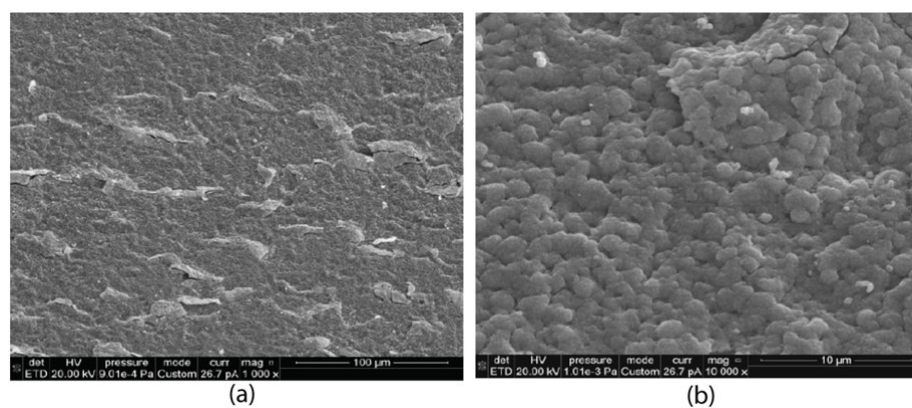
**Figure S4.** SEM morphology of the  $\text{Co}_{0.12}\text{Cr}_{0.55}\text{Fe}_{0.11}\text{Mn}_{0.1}\text{Ni}_{0.12}\text{CoCrFeMnNi}$  film, sample 2HT: (a)  $\times 1,000$ ; (b)  $\times 5,000$ .



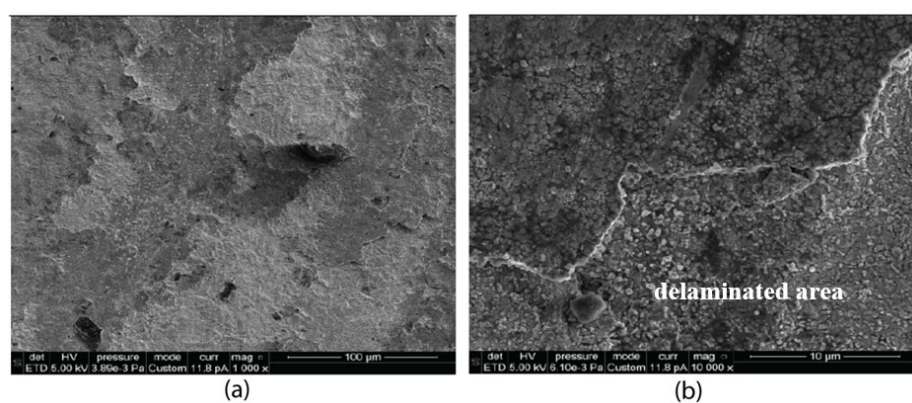
**Figure S5.** SEM morphology of the  $\text{Co}_{0.12}\text{Cr}_{0.55}\text{Fe}_{0.11}\text{Mn}_{0.1}\text{Ni}_{0.12}$  film, sample 2HT (corroded): (a)  $\times 1,000$ ; (b)  $\times 10,000$ .



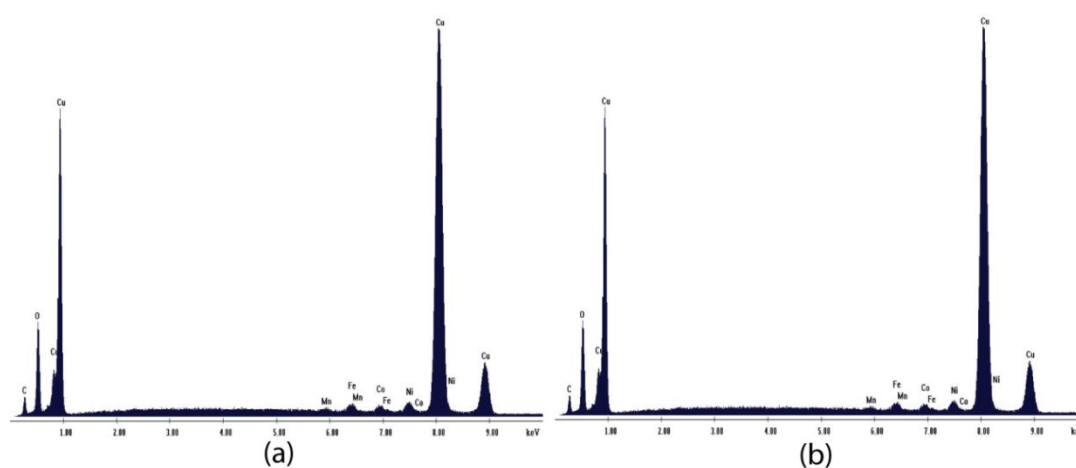
**Figure S6.** EDS spectra for of the  $\text{Co}_{0.12}\text{Cr}_{0.55}\text{Fe}_{0.11}\text{Mn}_{0.1}\text{Ni}_{0.12}$  film , sample 2HT, in the initial stage (a) and after corrosion (b).



**Figure S7.** SEM morphology of the equimolar  $\text{CoCrFeMnNi}$  thin film, sample 3: (a)  $\times 1,000$ ; (b)  $\times 10,000$ .



**Figure S8.** SEM morphology of the equimolar  $\text{CoCrFeMnNi}$  thin film, sample 3 (corroded): (a)  $\times 1,000$ ; (b)  $\times 10,000$ .



**Figure S9.** EDS spectra for the equimolar CoCrFeMnNi thin film, sample 3 in the initial stage (a) and after corrosion (b).