Supplementary Information (SI) for Sustainable Energy & Fuels.
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Remarkable power factor improvement in a nanostructured and porous thermoelectric oxide functionalized with viologen molecules

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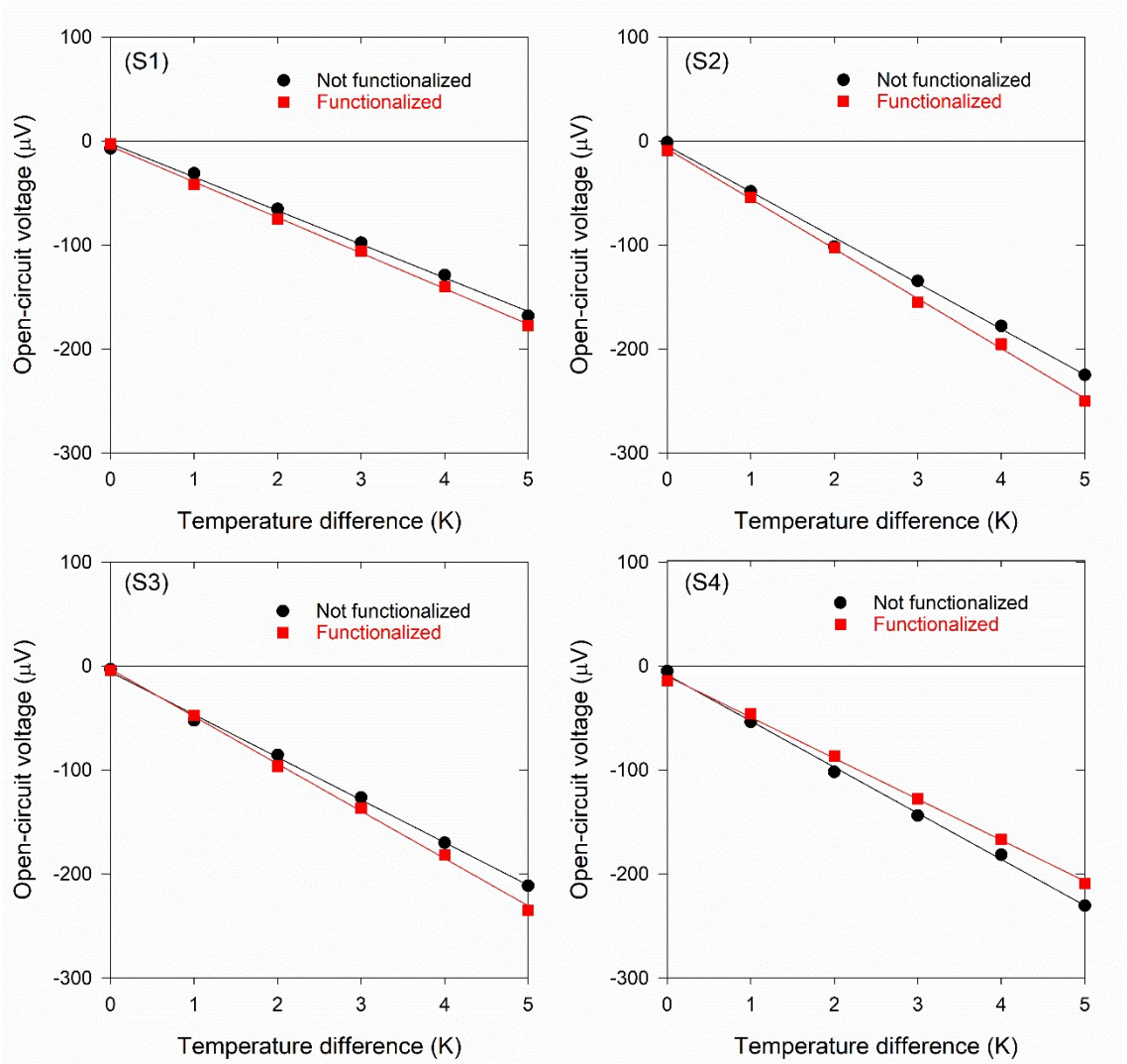

Fig. S1. Open-circuit voltage vs temperature difference curves for the determination of the Seebeck coefficient for samples S1 to S4. Lines correspond to the linear fits.

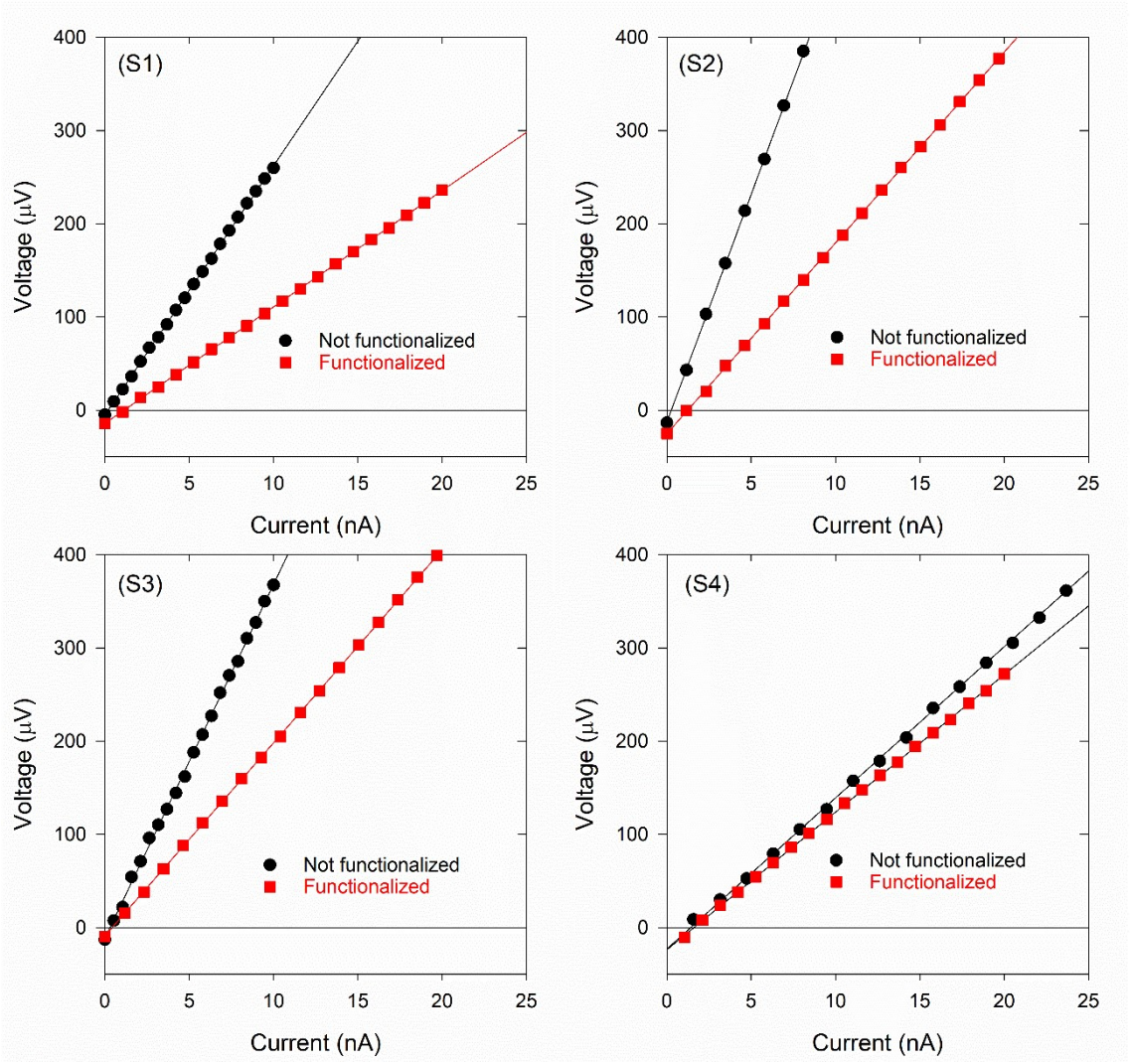

Fig. S2. Voltage vs current curves for the determination of the electrical resistance for S1 to S4. Lines correspond to the linear fits.

Table S1. Seebeck coefficient and electrical resistance values, and their variations, for S3 before and after their functionalization and after one week. The power factor ratio between functionalized and not functionalized films is also given.

Sample	**Seebeck coefficient (μV/K)**			**Electrical resistance (kΩ)**			$\boldsymbol{PF_{func}/PF_{not}}$
	Not func.	Func.	Variation (%)	Not func.	Func.	Variation (%)	
S3 initial	-40.05	-45.22	12.90	38.00	20.70	-45.52	2.34
S3 after one week	-	-39.09	-2.39	-	20.85	-45.13	1.74