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Correction

Correction: Sai, R.; Abumousa, R.A. Impact of Iron Pyrite Nanoparticles Sizes in Photovoltaic Performance. *Coatings* 2023, *13*, 167

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It has been brought to the authors attention that Figure 1 [1] needs additional explanation. To better describe the XRD patterns of FeS_2 pyrite displayed in Figure 1, additional text was added: "The X-ray diffraction (XRD) patterns of two samples exhibit a notable degree of similarity, with minor discrepancies observed in the intensity of diffraction peaks. This resemblance is primarily attributed to the identical material composition of both samples, namely, iron pyrite. Moreover, it is imperative to note that the XRD patterns for these two samples share congruent structural characteristics, resulting in the consistent norm of diffraction data as specified in the ASTM file".

A correction has been made to Section 2. Experimental, Section 2.2. Characterization, Section 2.2.1. X-ray Diffraction, Paragraph 1 [1]:

XRD patterns of the FeS_2 pyrite sample are shown in Figure 1. Typical diffraction peaks at 2θ = 28.71°, 33.43°, 37.25°, 40°, 57.79°, 59.98°, 61.89°, and 64.31° are attributed respectively to plan (111), (200), (210), (211), (220), (311), (222), (230), and (321), corresponding with the norm diffraction data of the FeS_2 (JCPDS card n°028-0076; space group Pa3). No other impurities, such as marcasite, pyrrhotite, or greigite compounds, were detected in the XRD patterns, confirming the high purity of the obtained sample. Powder XRD patterns appeared in a cube of crystalline in a pyrite structure, where the disulfide ions localized in octahedral, coordinated with Fe metal ions within a space group symmetry of T_h^6 $(Pa3)$. The significant effect of temperature can be observed on the position of sulfur (S). The sulfur position changed when the temperature increased. The X-ray diffraction (XRD) patterns of two samples exhibit a notable degree of similarity, with minor discrepancies observed in the intensity of diffraction peaks. This resemblance is primarily attributed to the identical material composition of both samples, namely, iron pyrite. Moreover, it is imperative to note that the XRD patterns for these two samples share congruent structural characteristics, resulting in the consistent norm of diffraction data as specified in the ASTM file.

The authors state that the scientific conclusions are unaffected. This correction was approved by the Academic Editor. The original publication has also been updated.

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Reference

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