Supporting information: Cu₂ZnSnS₄ Thin Film Solar Cells with 5.8 % of Conversion Efficiency Obtained by a Facile Spray Pyrolysis Technique

Thi Hiep Nguyen, Wilman Septina, Shotaro Fujikawa, Feng Jiang, Takashi Harada and Shigeru Ikeda*



Fig. S1 XRD patterns of the film annealed (a) at 600 °C for 10 min, (b) at 600 °C for 30 min and (c) at 600 °C for 50 min.



Fig. S2 Photo *J-V* characteristics of ITO/ZnO/CdS/CZTS/Mo/glass solar cells made from CZTS films obtained by annealing the as-deposited film at 600 °C for (a) 10 min, (b) 30 min, and (c) 50 min. Results for three samples each measured under simulated AM1.5G irradiation are shown. The best results of each device are given in Fig. 5 together with their corresponding dark *J-V* curves.