Supporting Information

Enhanced thermoelectric performance in $(Ta_{1-x}Mo_x)_4SiTe_4$/polyvinylidene fluoride (PVDF) organic-inorganic flexible thermoelectric composites

Miao Liu,[1,2] Dudi Ren,[2] Chenyu Ye,[2] Tingwei Yin,[2] Sanyin Qu,[2,a)] Pengan Zong[1,a)]

[1]College of Materials Science and Engineering, Nanjing Tech University, Nanjing 210009, China

[2]State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 200050, China

[a)]Authors to whom correspondence should be addressed: qusanyin@mail.sic.ac.cn and pazong@njtech.edu.cn

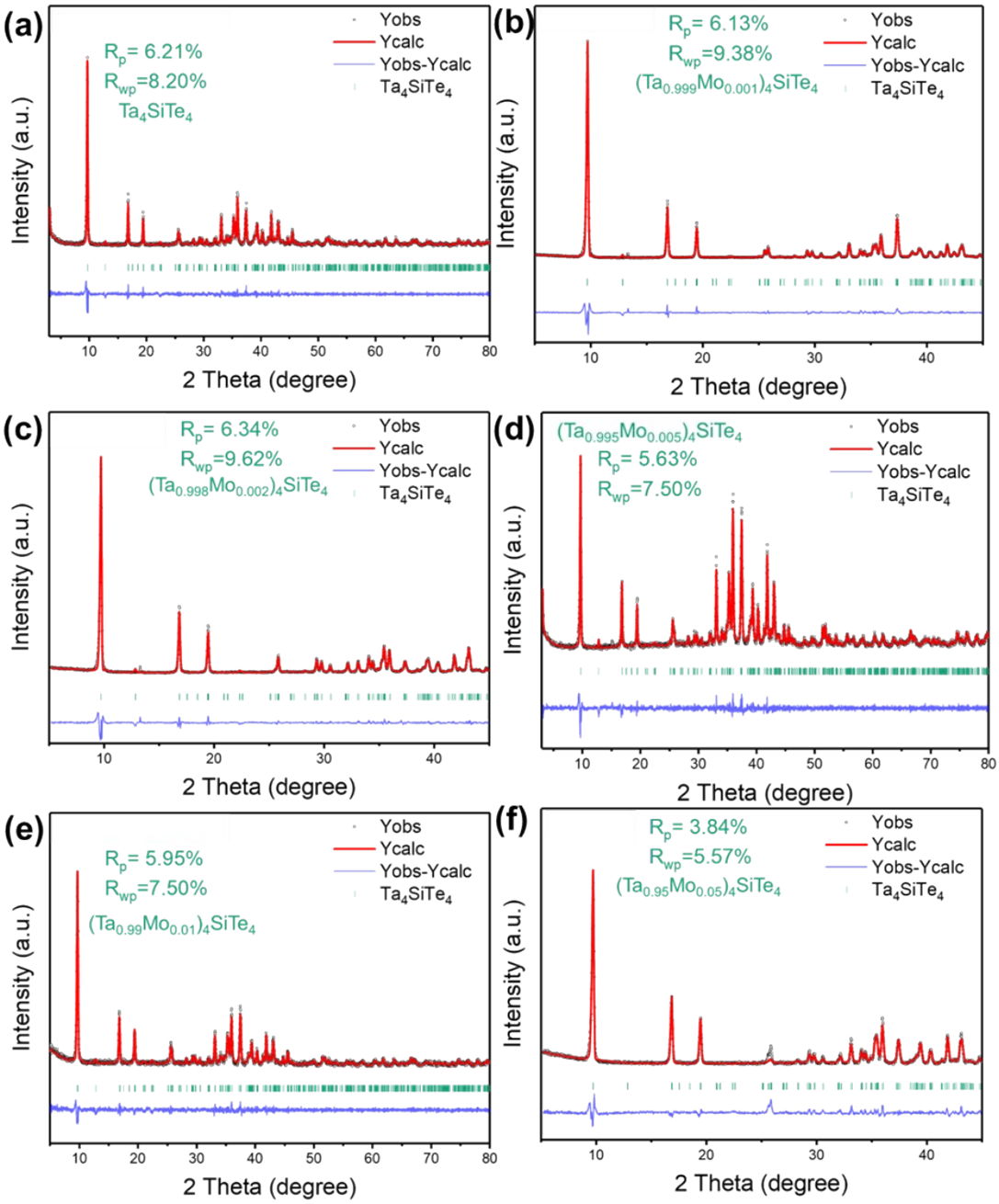

Fig. S1 Rietveld refinements results for the X-ray diffraction (XRD) patterns of $(Ta_{1-x}Mo_x)_4SiTe_4$ (x = 0, 0.001, 0.002, 0.005, 0.01, and 0.05) whiskers.

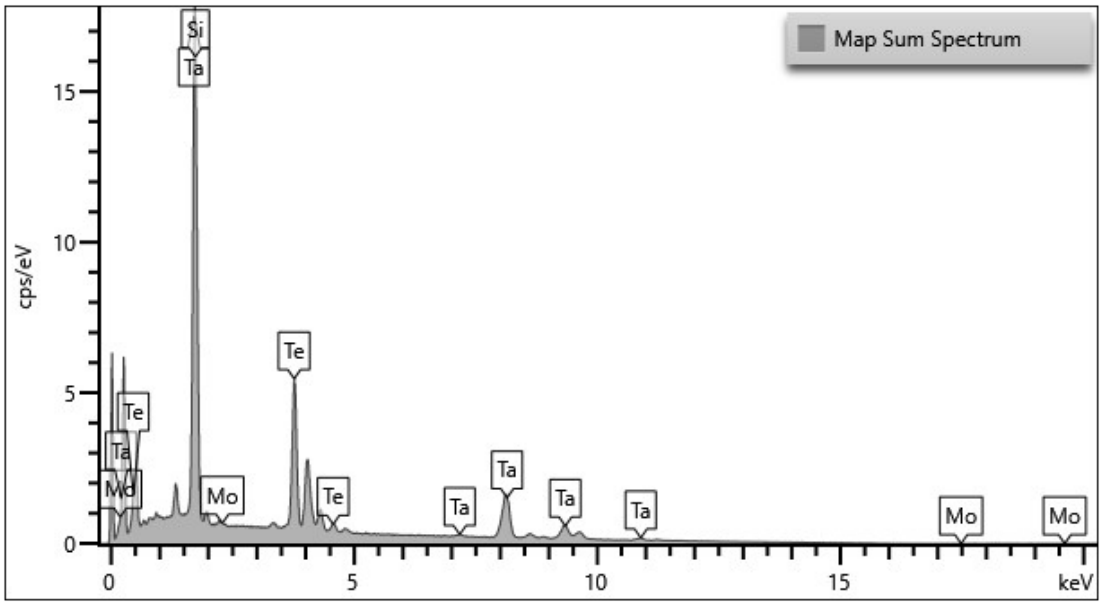

Fig. S2 EDS maps Sum Sepectrum of the $(Ta_{1-x}Mo_x)_4SiTe_4$ (x = 0.005) whiskers.

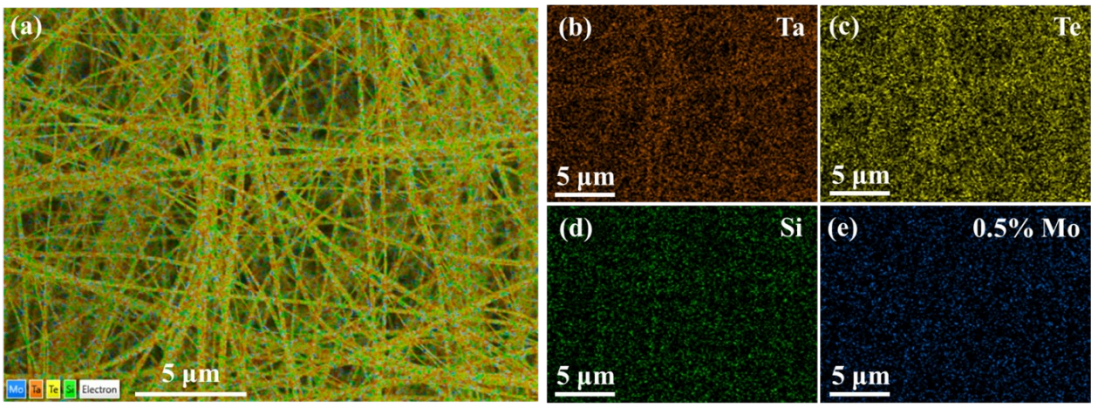

Fig. S3 EDS maps of the $(Ta_{1-x}Mo_x)_4SiTe_4$ (x = 0.005) whiskers. (a) all elements, (b) Ta, (c) Si, (d) Te, and (e) Mo mappings.

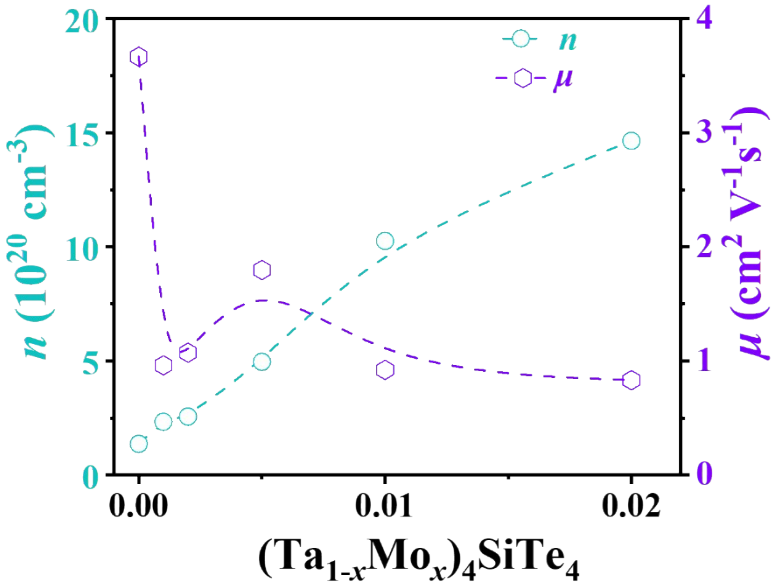

Fig. S4 The carrier concentration and mobility of Mo-doped $(Ta_{1-x}Mo_x)_4SiTe_4$/PVDF composite films, (x = 0, 0.001, 0.002, 0.005, 0.01, and 0.02).

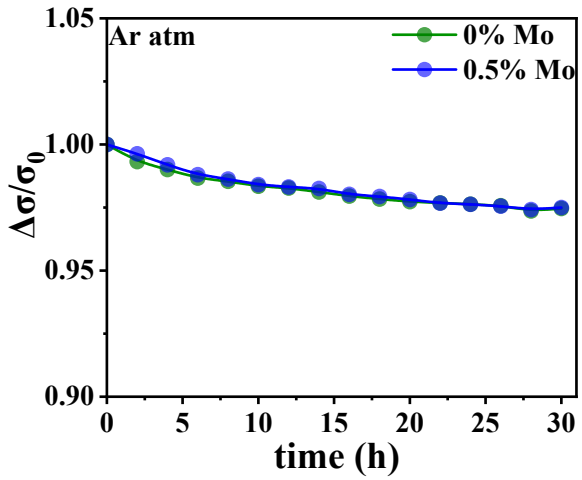

Fig. S5 Stability of Ta_4SiTe_4/PVDF and $(Ta_{0.995}Mo_{0.005})_4SiTe_4$/PVDF composite films in Ar atmosphere.