Supporting Information

Preparation of Nanoporous molybdenum film by Dealloying Immiscible Mo-Zn System for hydrogen evolution reaction

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Content.

S1. Mo-Zn phase diagram

Mo-Zn phase diagram is illustrated in Fig. S1. Mo has negligible solubility even in liquid zinc.

S2. Auger depth profiles of annealed Mo/Zn bilayered sample

Typical Auger depth profiles of Mo, Zn elements in the as-prepared Mo/Zn bilayered samples are illustrated in Fig. S1. It can be observed that when the layered samples were heated at 400°C, which was close to the melting point of Zn (419.53°C), a broad Mo-Zn coexistence region appeared, indicating that there is an obvious diffusion behavior occurred between Mo and Zn elements during annealing and the Mo-Zn interface had formed.

S3. A high magnification TEM view of Zn layer

A high magnification TEM view of Zn layer is shown in supplement material S2, the grain sizes of Zn are in the rage of 15-50nm.

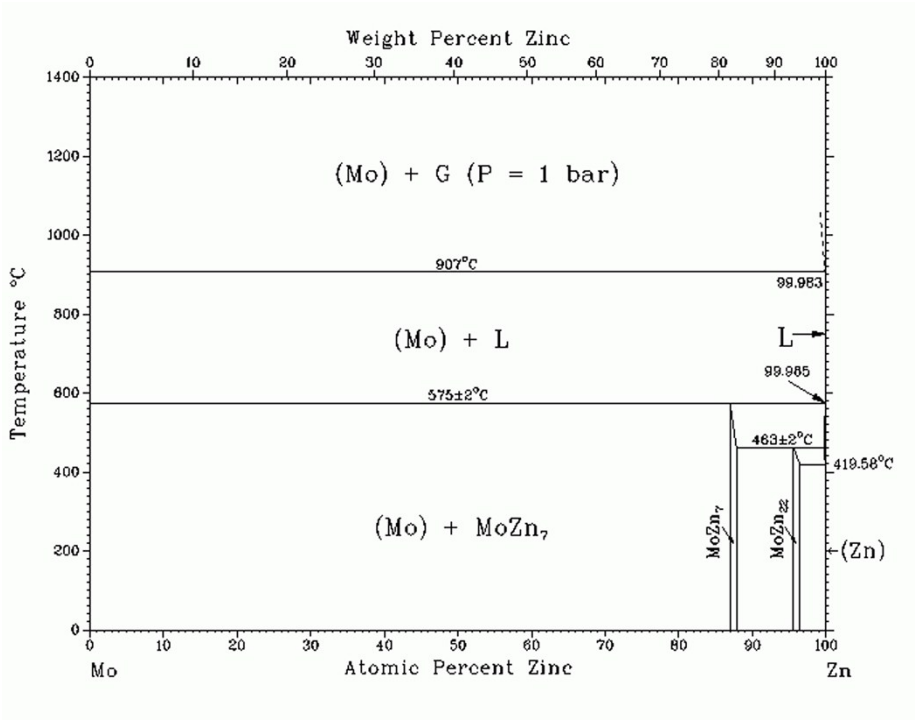

Figure S1 Mo-Zn phase diagram..

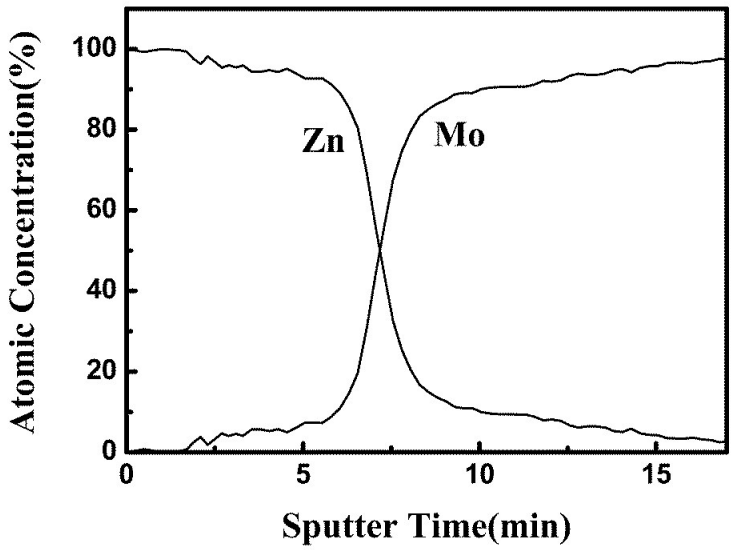

Figure S2 AES depth profiles of Mo-Zn bilayered sample annealed at 400°C for 5h.

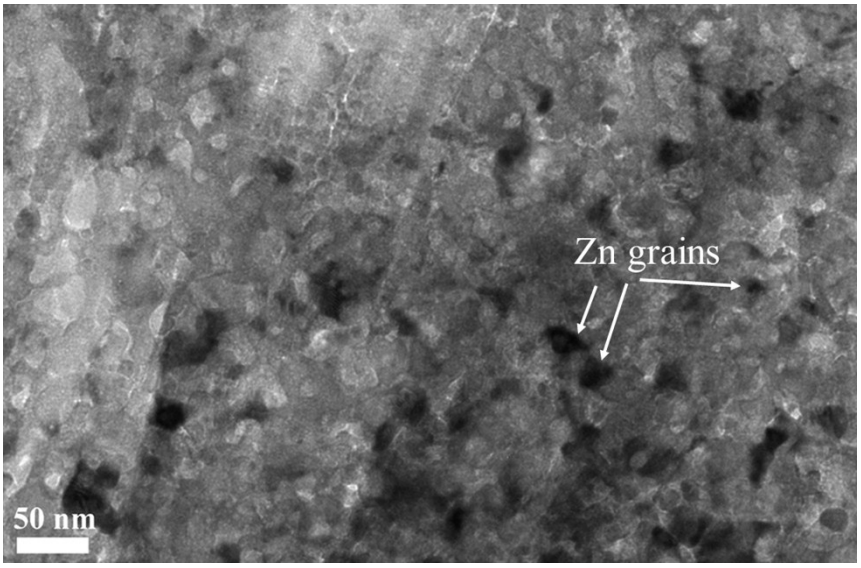

Figure S3 High magnification TEM view of nanocaystalline Zn layer after annealing.