Revised Supporting Informationsubmitted to *Electrochemistry*

**Prolonged Electrochemical Cycling Characteristics of ZnSiP2 Prepared with Mixed Crystalline-Amorphous Domains**

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**Figure S1**; XRD patterns of ZnSiP2(Air) and ZnSiP2(Argon). XRD pattern fitting was conducted between experimental data and sphalerite ZnS. Phosphorus (P) occupies sulfur (S) sites in a cubic close-packed arrangement of ZnS, while zinc (Zn) and silicon (Si) are randomly distributed within the Zn sites.

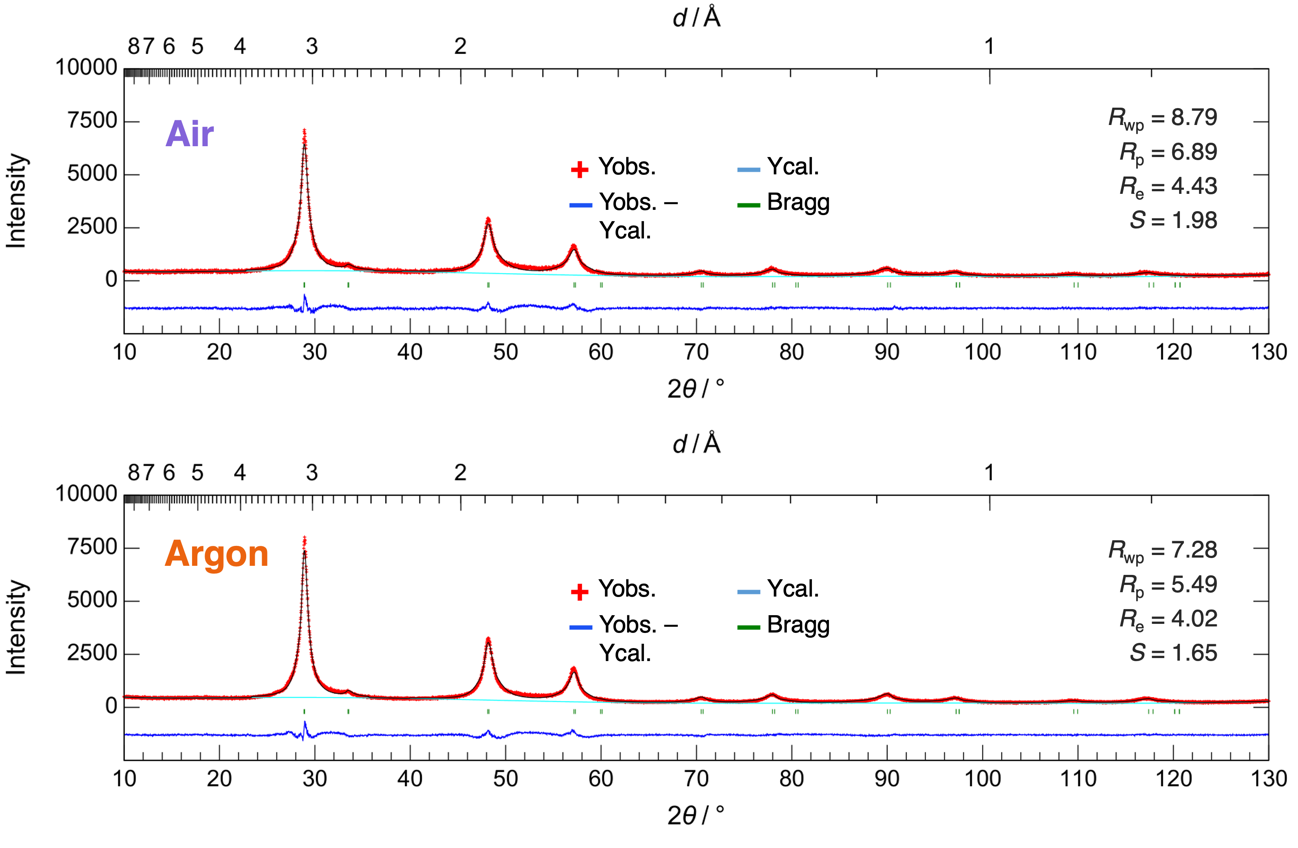
**Figure S2**; Scanning electron microscopy (SEM) images for ZnSiP2(Air) and

ZnSiP2(Argon), showing more or less equivalent particle size between the two samples.

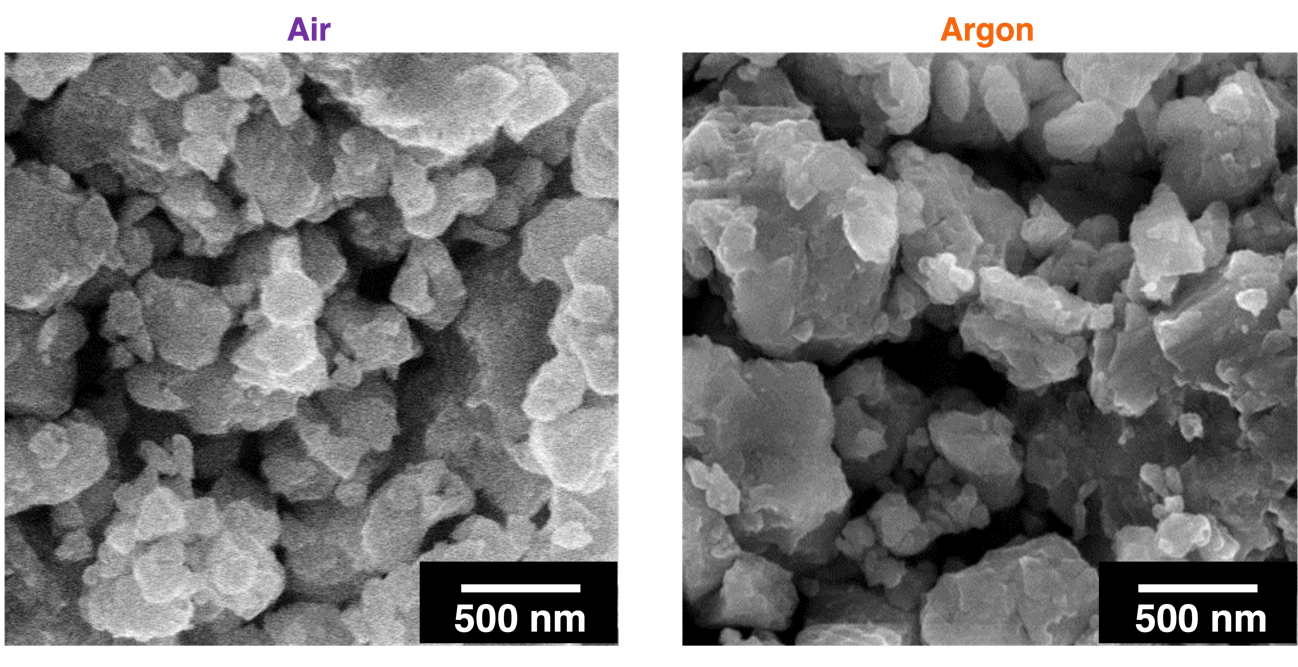
**Figure S3**; High-resolution transmission electron microscopy (HR-TEM) images and electron diffraction for ZnSiP2 prepared in Air and Argon environments, highlighting distinct arrangements of crystalline and amorphous domains, as depicted.

**Figure S4**; XRD patterns at different ball milling times from 1 to 12 h at a rotating speed of 600 rpm.

**Figure S5.** Charge discharge curves and coulombic efficiency for ZnSiP2 (Air) and (Argon) for 200 cycles using 1.2 M LiPF6 + 0.1 M LiBF4/(EC/FEC/DMC)(25:5:70 in vol.%) containing 1wt% VC as an additive. Inset figure highlights the coulombic efficiency for initial 10 cycles.

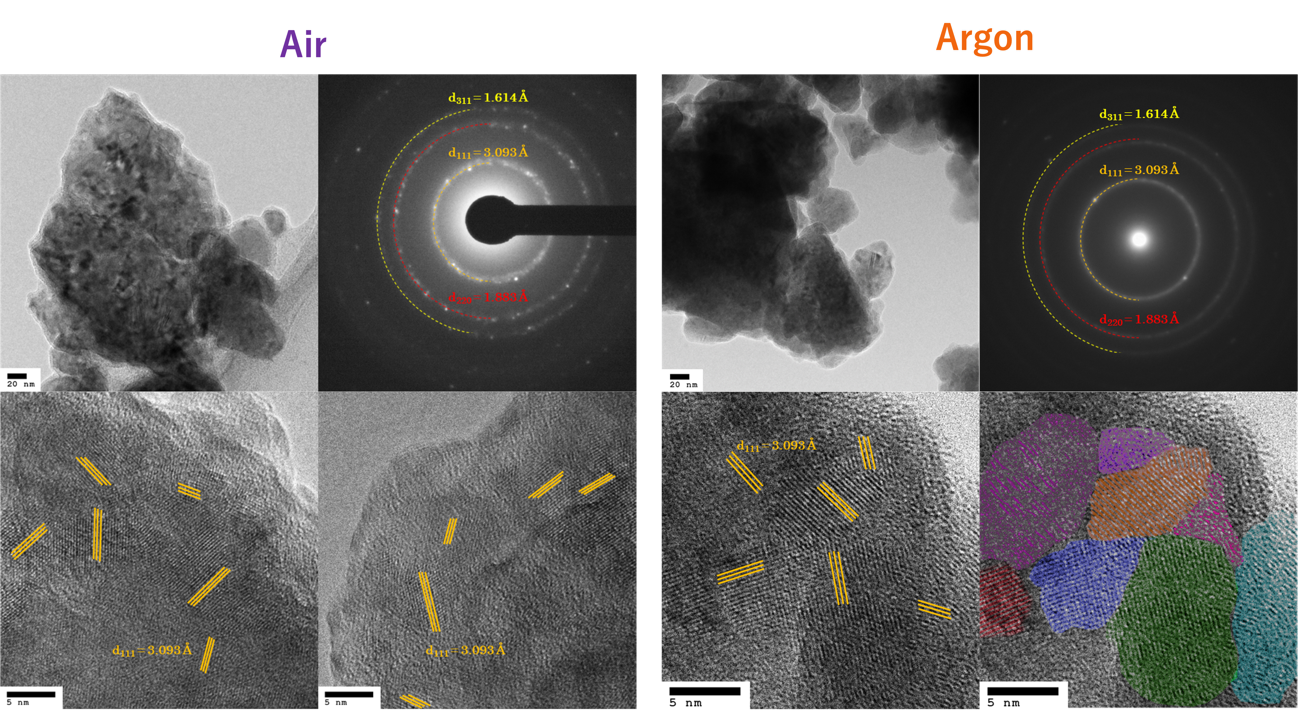


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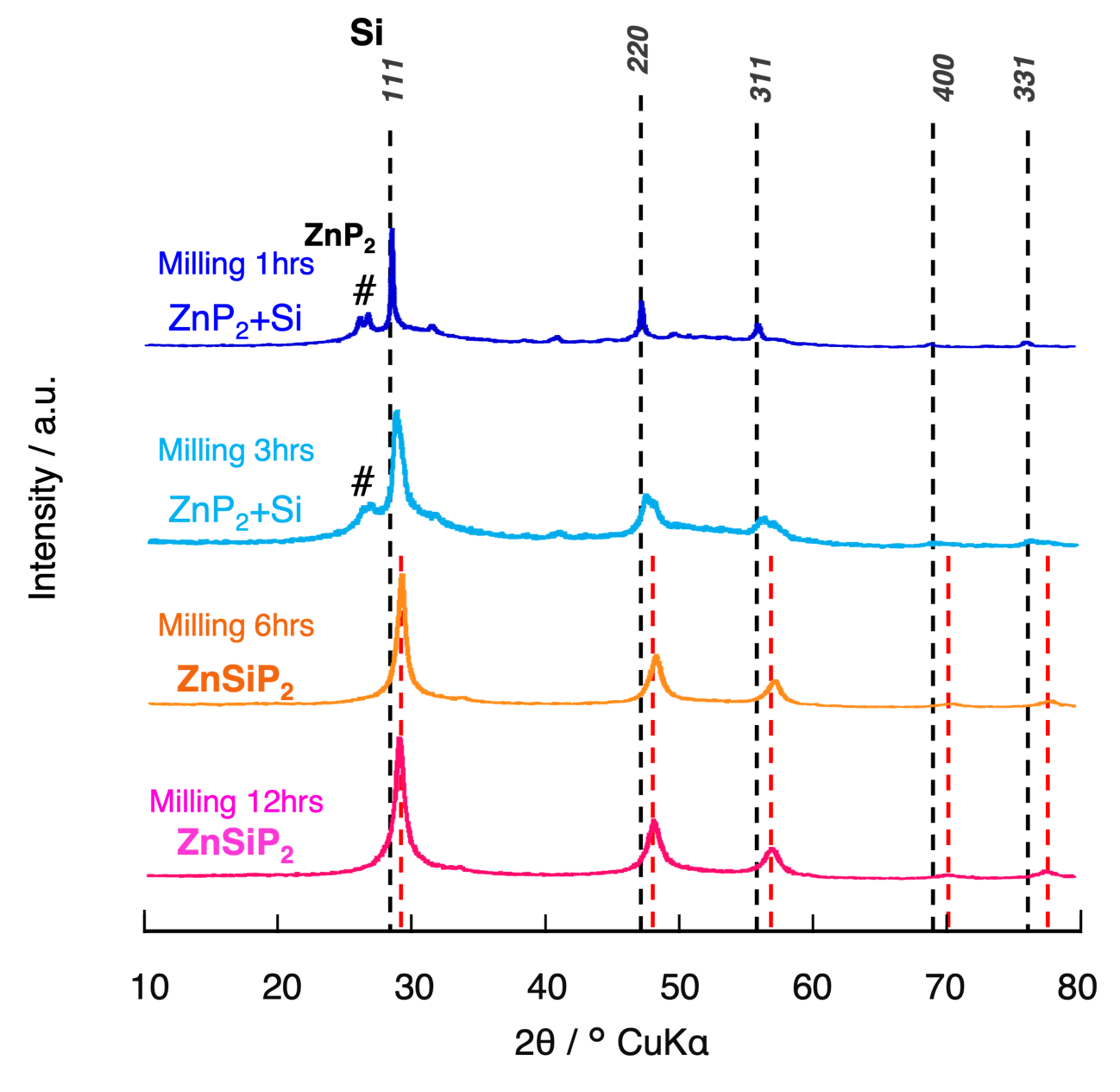
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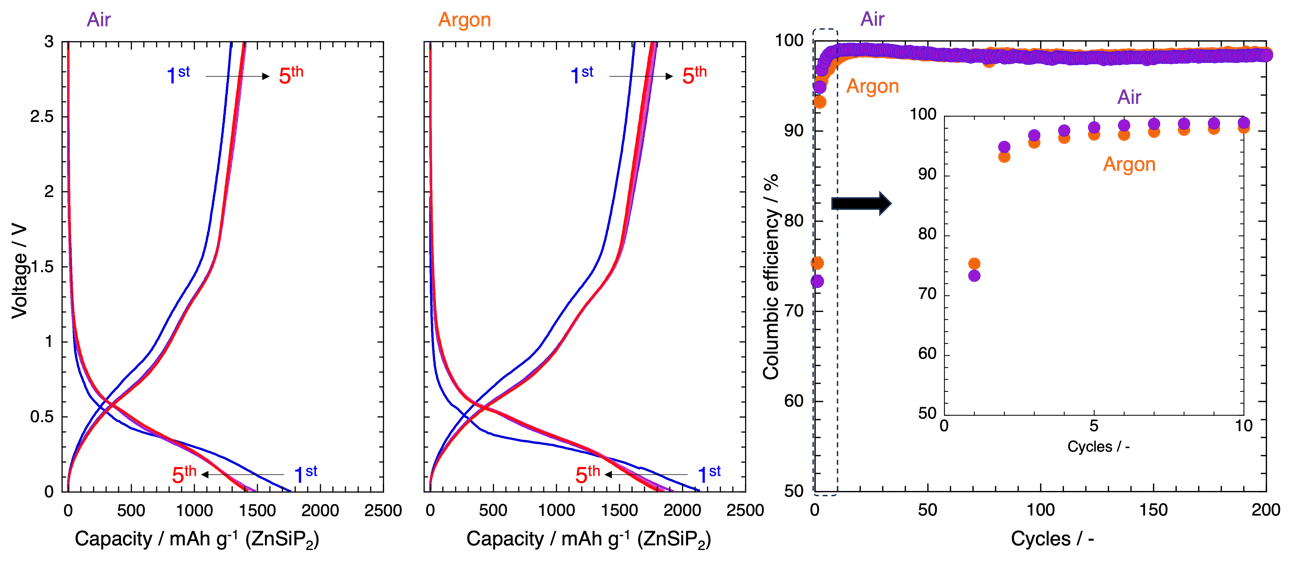
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