

Downsizing and Soft X-ray Tomography for Cellular Uptake of Interpenetrated Metal-Organic Frameworks

Yu-Sheng Yu ^{1,2}, Yung-Yi Liang ¹, Chia-Chun Hsieh ³, Zi-Jing Lin ³, Po-Hsiu Cheng ^{2,4,5},
Chih-Chan Cheng ³, Shu-Ping Chen ², Lee-Jene Lai ^{*3}, Kevin C.-W. Wu ^{*1,2,4,5}

1. National Taiwan University, Department of Chemical Engineering, Taipei, Taiwan
2. National Health Research Institute, Institute of Biomedical Engineering and Nanomedicine, Miaoli, Taiwan
3. National Synchrotron Radiation Research Center (NSRRC), Hsinchu, Taiwan
4. International Graduate Program of Molecular Science and Technology, Taiwan International Graduate Program, Academia Sinica, Taipei, Taiwan
5. International Graduate Program of Molecular Science and Technology (NTU-MST), National Taiwan University, Taipei, Taiwan

* Correspondence should be sent to: kevinwu@ntu.edu.tw and jene@nsrrc.org.tw

Supplementary Material

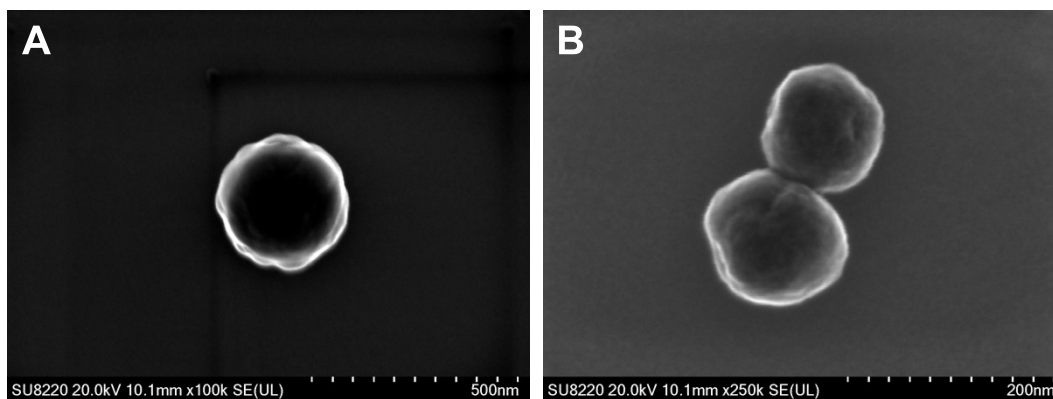


Fig. S1. Additional SEM images of Zr-PEB/TFA (A), and Hf-PEB/TFA (B).

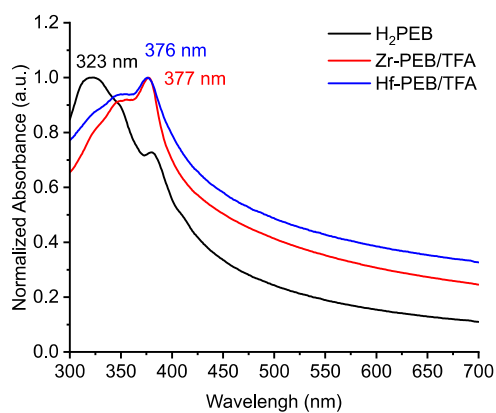


Fig. S2. The UV-Vis spectra of H₂PEB, Zr-PEB/TFA, and Hf-PEB/TFA. Samples were dispersed in deionized water and the spectra was recorded using a microplate reader.

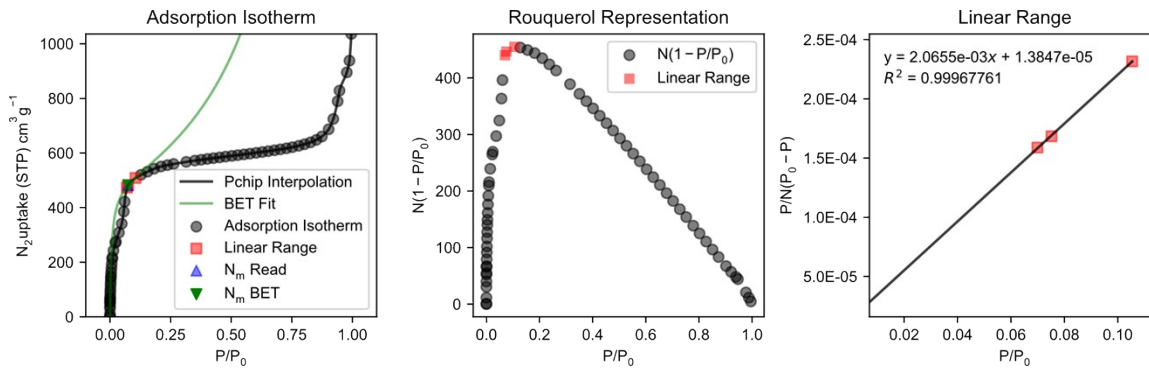


Fig. S3. Applying BETSI method to identify the suitable range for the calculation of Zr-PEB/TFA's specific surface area.

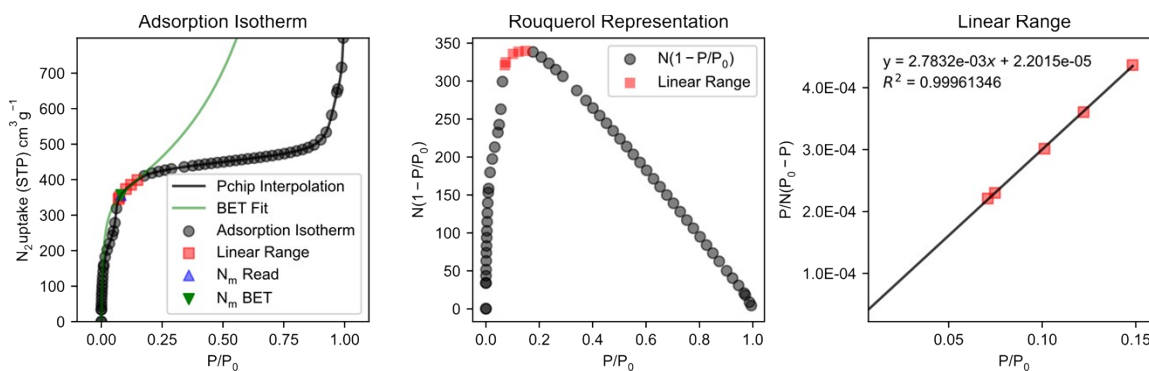


Fig. S4. Applying BETSI method to identify the suitable range for the calculation of Hf-PEB/TFA's specific surface area.

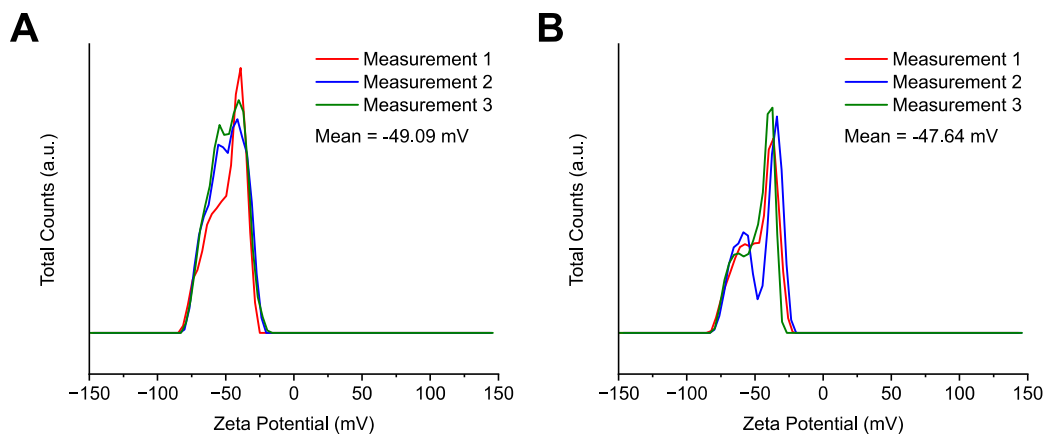


Fig. S5. Zeta potentials of Zr-PEB/TFA (A) and Hf-PEB/TFA (B). The samples were sonicated to disperse in a 10 mM phosphate buffer. Data represent three measurements from the same samples.

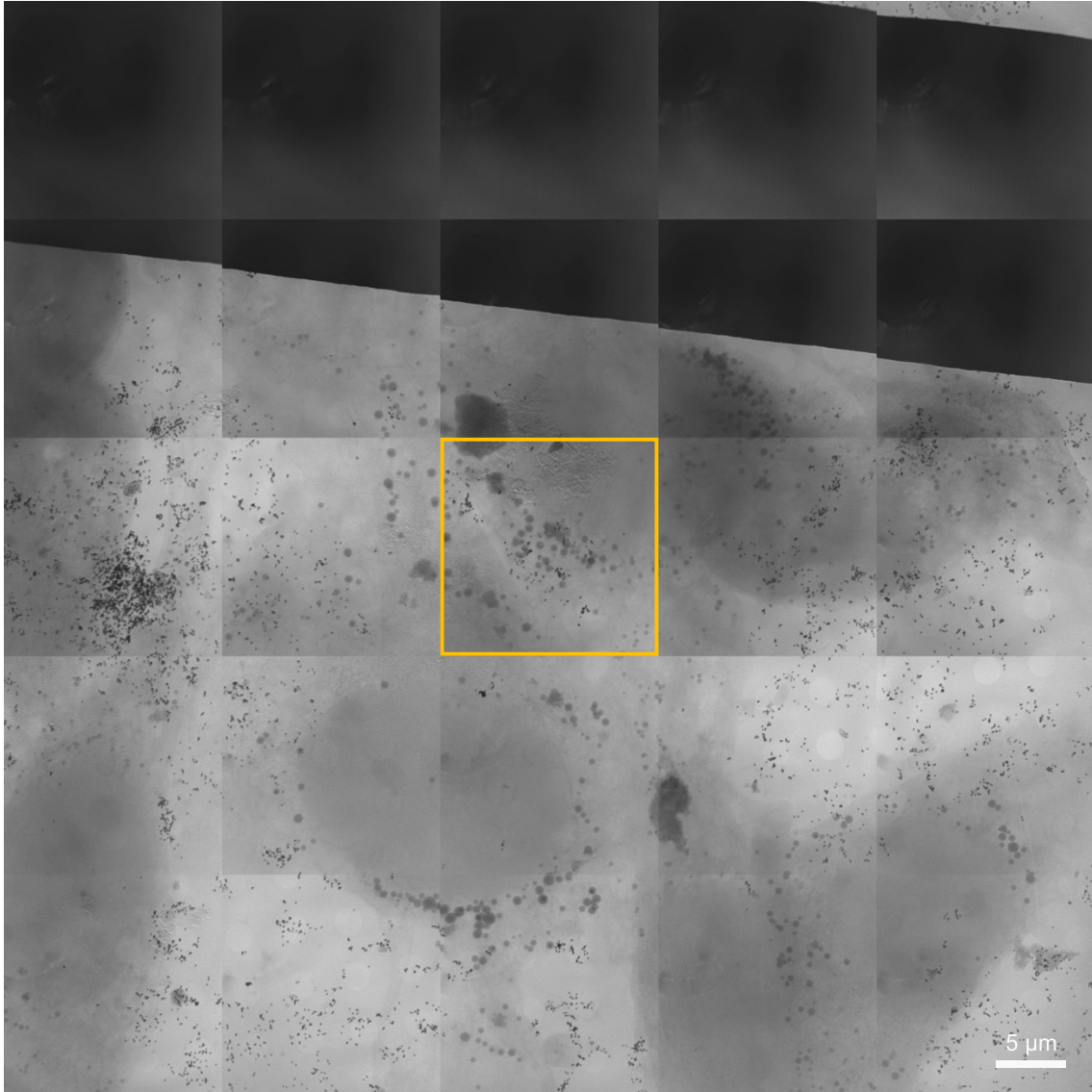


Fig. S6. A 5×5 mosaic map around the region of interest (highlighted), which was selected for performing tomography, as shown in **Fig. 8**.