Supplementary Information for

Space-Confined Strategy toward Large-Area Two-Dimensional

Crystals of Ionic Liquid

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Supplementary Inforamtion includes

Fig. S1-Fig. S8



Fig. S1 Various defects at mica surface obtained with AFM. The insert shows the cross section profile as indicated by the black line in each figure.



Fig. S2 (a) Typical labyrinthine AFM topography images of [Bmim][NTFI] IL on the mica surface and (b) the island-like structure after three days.



Fig. S3 Macroscopic morphology of trapped ILs exhibit dot-like shape.



Fig. S4 (a-c) Macroscopic morphology of trapped ILs exhibit curved shape (d) The corresponding extended image of surface topography delimited by the black square in (a).



Fig. S5 (a) XPS results of mica and mica with crystallized ILs. (b) N1s fitting results.



Fig.S6 The area ratio of each layer in ten stacked region. The value was normalized by the area of the first layer.



Fig.S7 AFM topography images of confined [Bmim][NTFI] ILs at mica interface.



Fig. S8 DSC curve of (a) bare mica and (b) mica with a drop of pure IL deposited on the surface obtained at a heating/cooling rate of 5K min⁻¹.