

Supplementary Materials:

Controlled synthesis of twinning β -form anhydrous guanine nanoplatelets in aqueous solution

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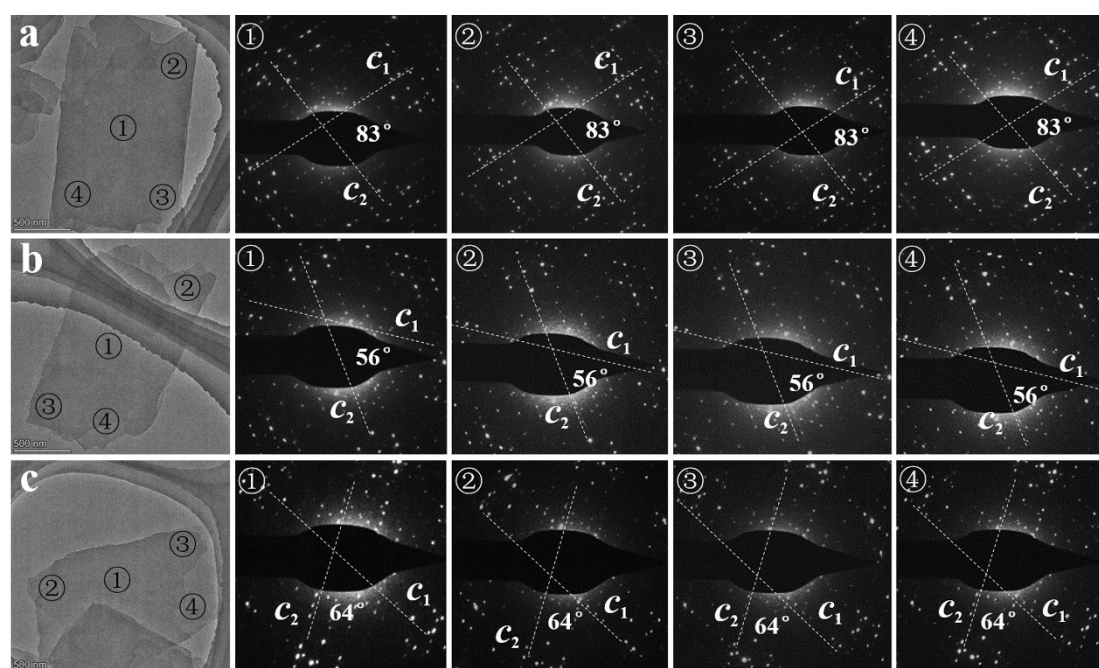


Figure S1. TEM characterizations of the twinning β -AG nanoplatelets synthesized under standard condition. The twinning angles are (a) 83° , (b) 56° and (c) 64° , respectively.

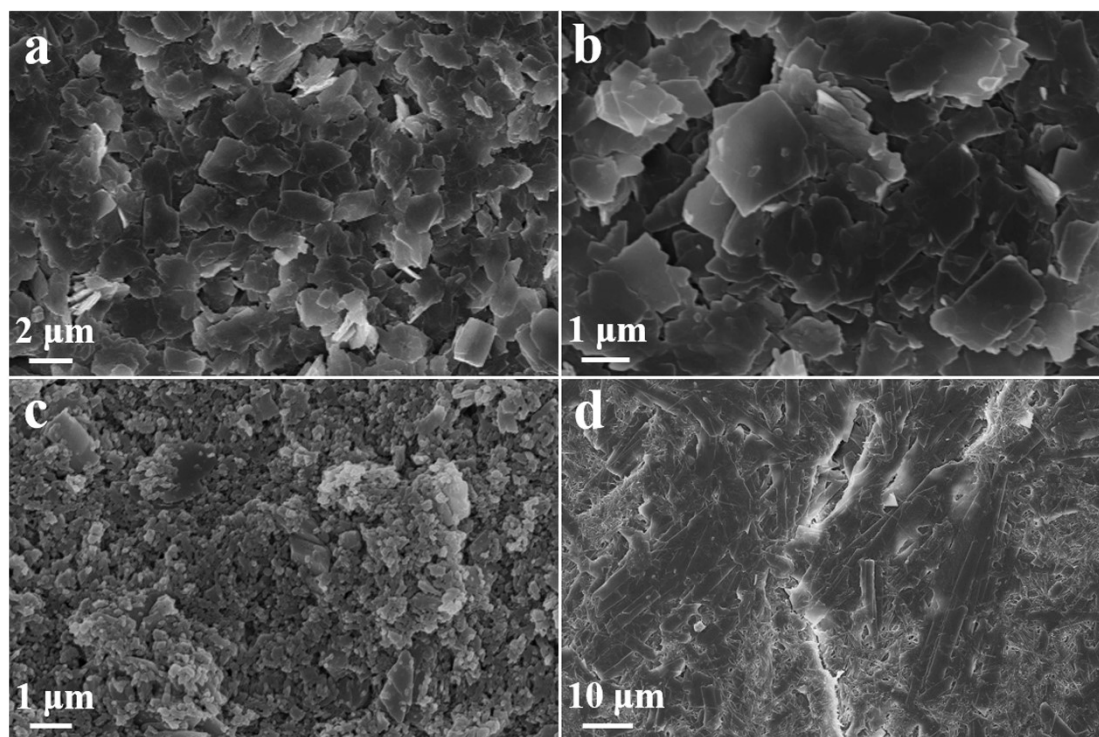


Figure S2. SEM images of the thin films deposited by (a-b) twinning β -AG nanoplatelets synthesized under standard condition, (c) industrial guanine crystals, (d) SEM image of the skin of hairtail.

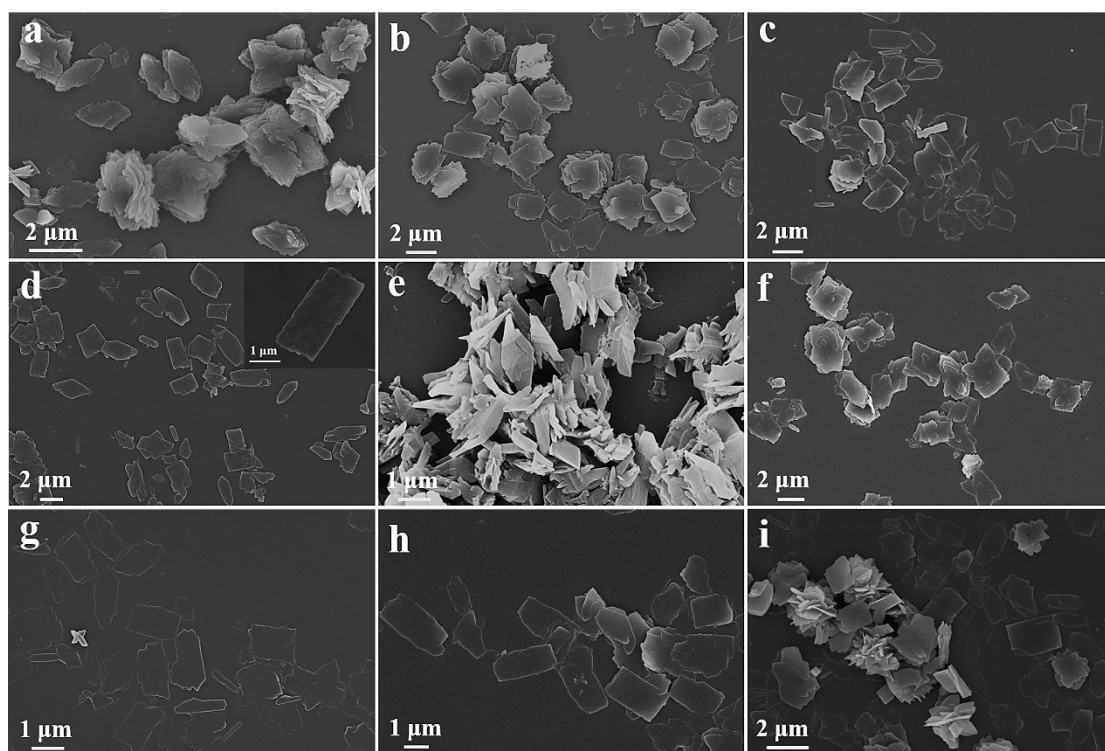


Figure S3. SEM images of the guanine crystals synthesized under different conditions. (a-d) 0.66 mM guanine, 1 mg/mL of P(VP-co-VA), (a) stirring for 6 h under the open state, (b) stirring for 4 h under the open state, and then standing for 2 h under the sealed state, (c) stirring for 2 h under the open state, and then standing for 10 h under the sealed state, (d) stirring for 2 h under the open state, and then standing for 22 h under the sealed state, inset: zoomed-in SEM image; (e-i) different concentrations of polymer and guanine under otherwise standard condition, (e-g) 0.66 mM guanine, (e) without P(VP-co-VA), (f) 0.1 mg/mL of P(VP-co-VA), (g) 3 mg/mL of P(VP-co-VA); (h, i) 1 mg/mL of P(VP-co-VA) and changing guanine concentration, (h) 1.32 mM guanine, (i) 1.98 mM guanine.

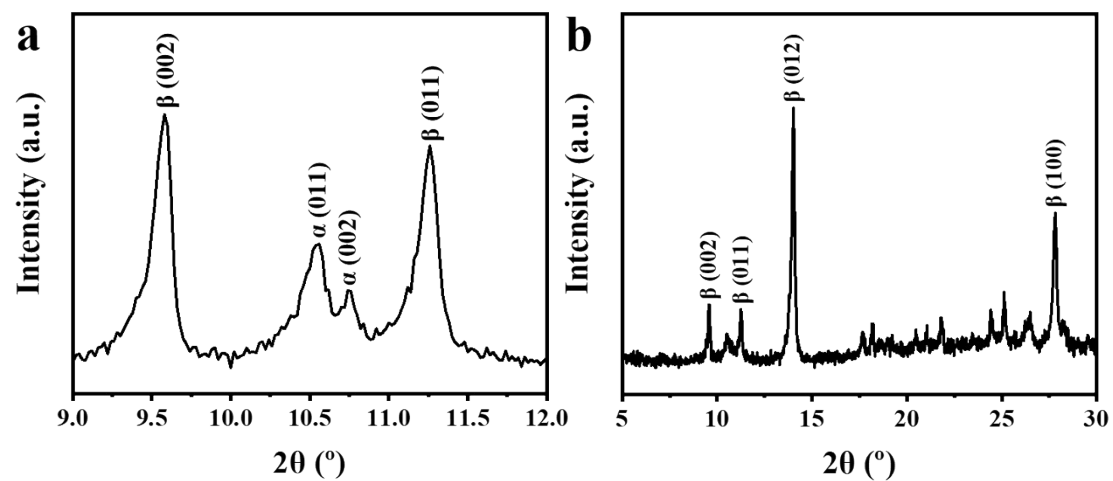


Figure S4. PXRD patterns of the anhydrous guanine crystals synthesized in the solution with 0.66 mM of guanine and without P(VP-co-VA) under otherwise standard condition.