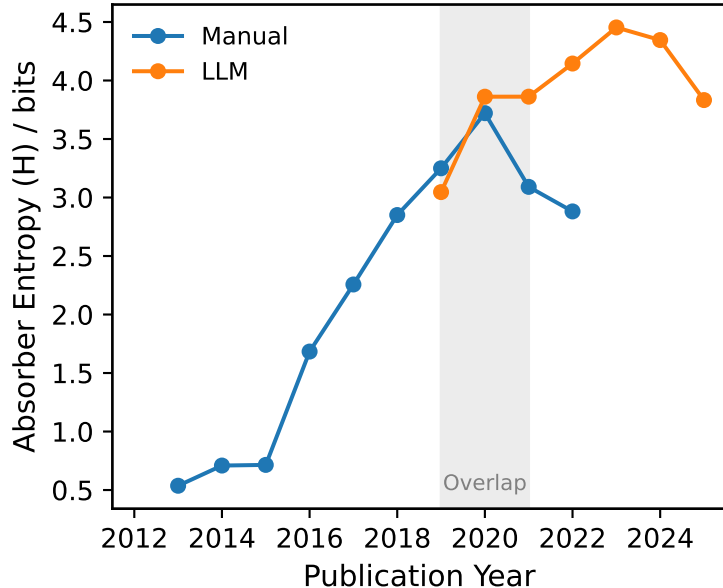
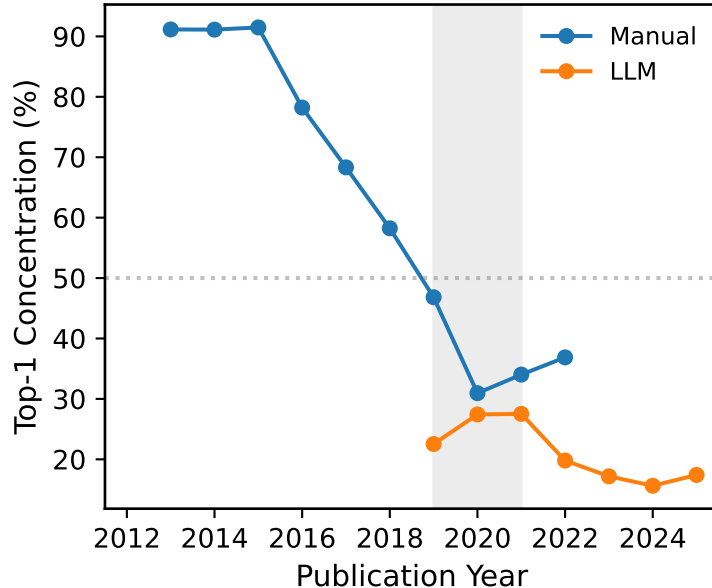
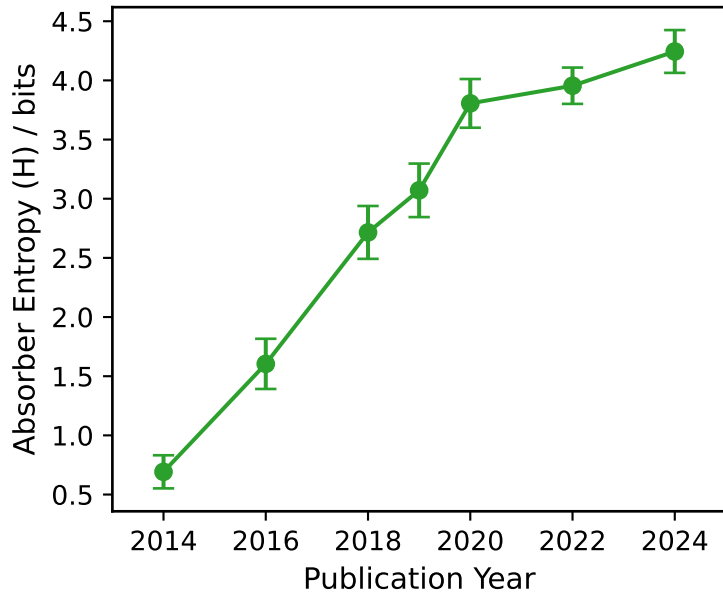


a Entropy by extraction method**b MAPbI₃ dominance decay****c Rarefaction analysis (N=500, 95% CI)****d Physical validation: bandgap spread**