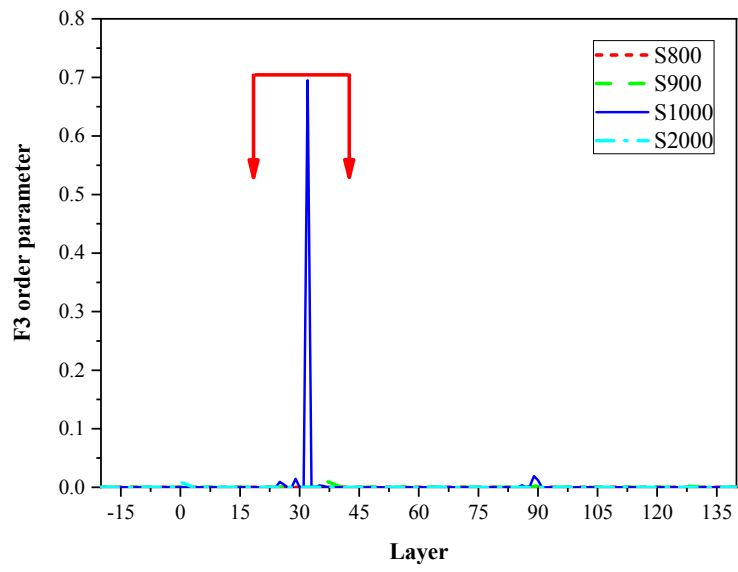
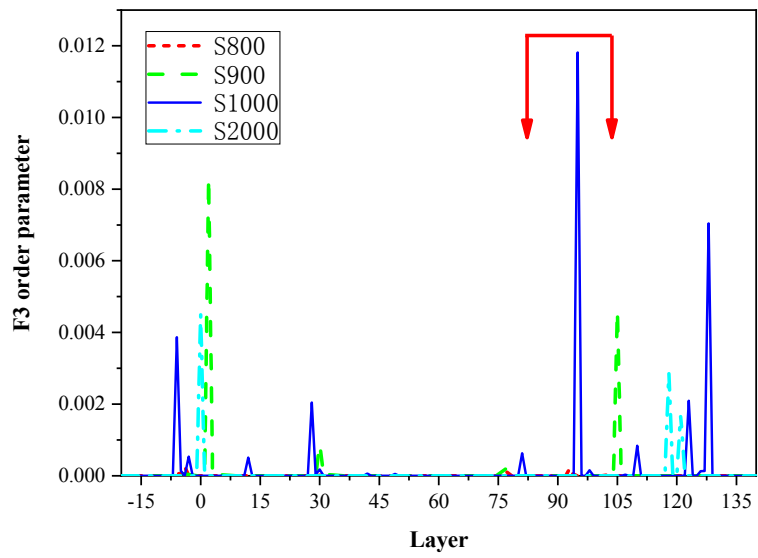
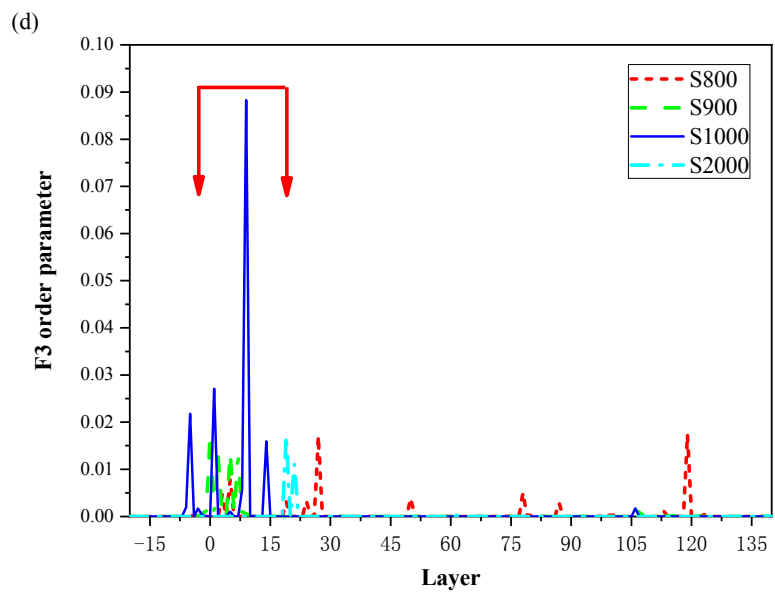
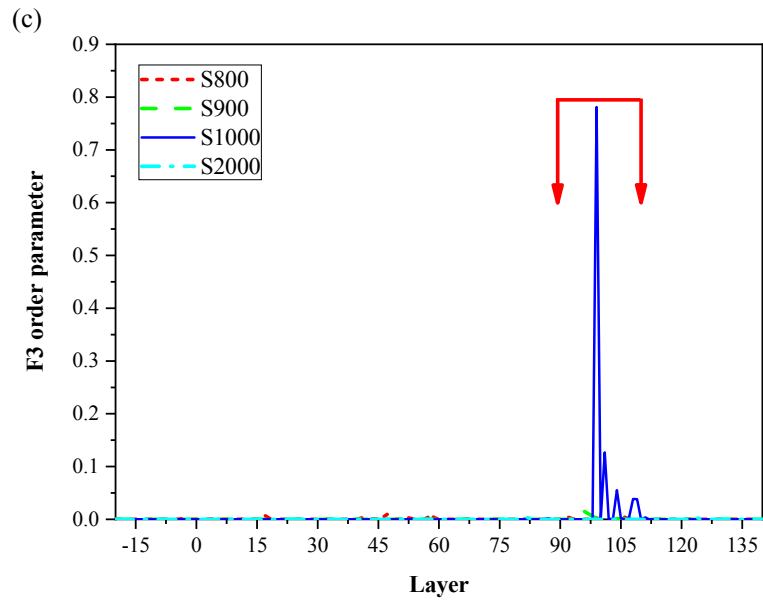


(a)



(b)





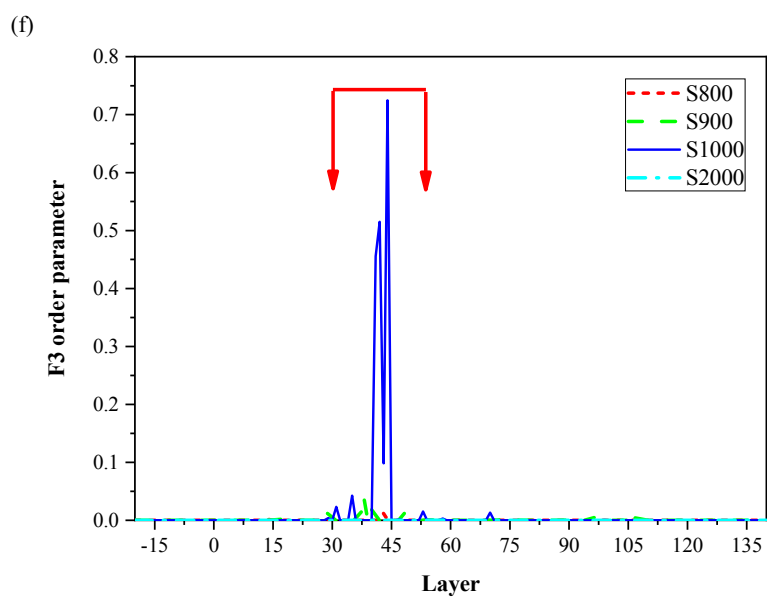
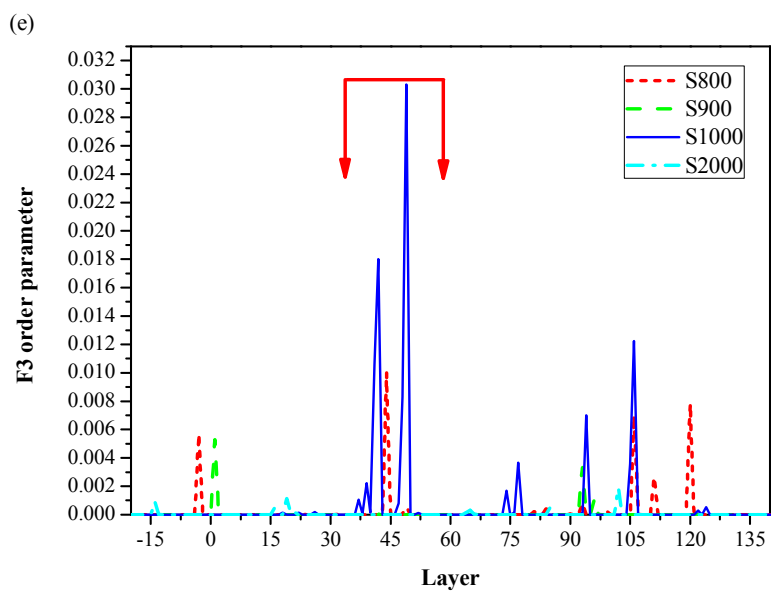


Fig. S1 F3 order parameter for $2 \times 2 \times 10$ unit cells of different sI methane hydrate systems during stretching. (a) deletion percentage of 0.91%; (b) deletion percentage of 1.99%; (c) deletion percentage of 2.69%; (d) deletion percentage of 3.07%; (e) deletion percentage of 5.92%; (f) deletion percentage of 9.02%.