

Supplementary Image 1. The tuning procedure of MPC-DDE.



Supplementary Image 2 Open-loop responses of the FBC unit at different steady-state operating points: ((a) and (c): step responses of Q_c ; (b) and (d): step responses of F_1)



Supplementary Image 3 Gap measurements of FBC unit at different operating points.



Supplementary Image 4 Frequency-dependent RGA of FBC unit at all operating points.



Supplementary Image 5 Variations of output power of different controllers with the measurement noise



Supplementary Image 6 Variations of fuel feed of different controllers with the measurement noise