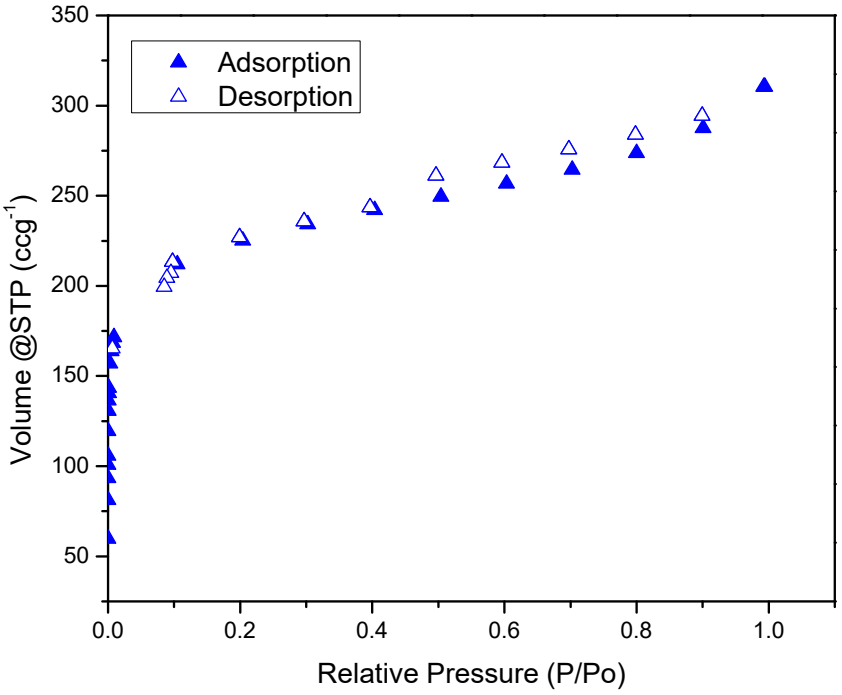
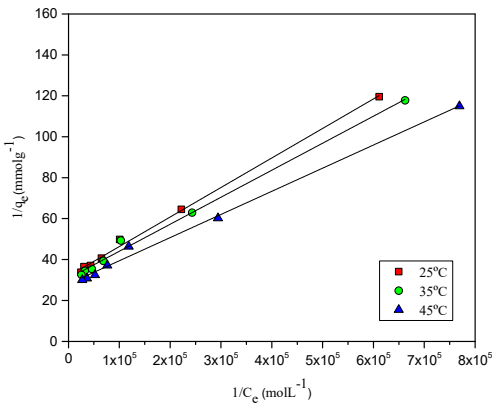
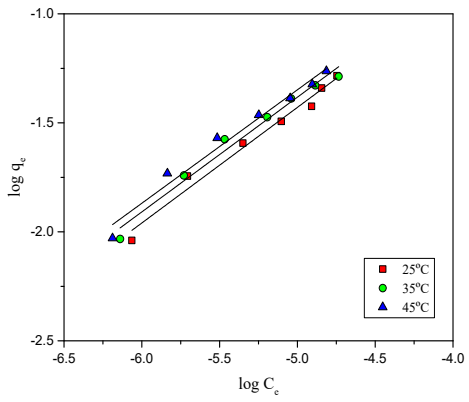


Figure S1. N_2 adsorption desorption isotherm of commercial activated carbon.

a)



b)



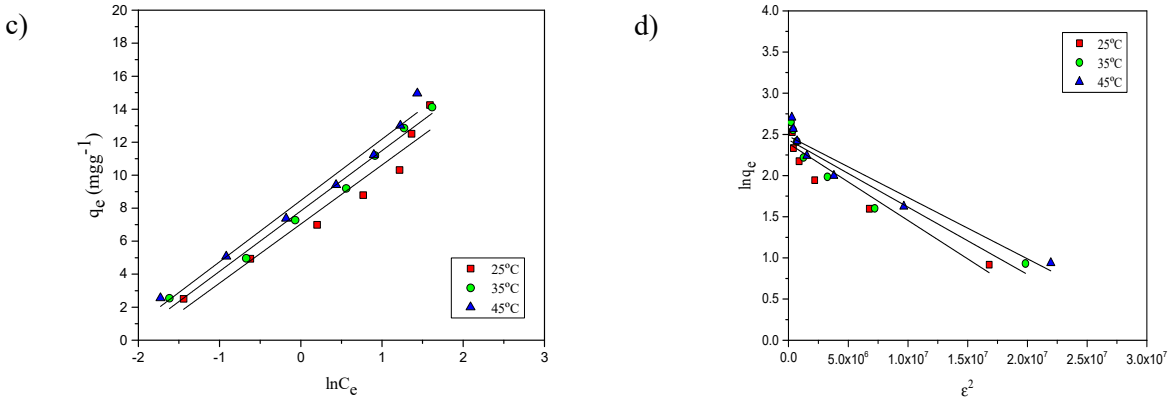


Figure S2 a) Langmuir b) Freundlich, c) Temkin and d) D-R isotherm for the adsorption of AYG onto HC-230-4 at different temperatures.

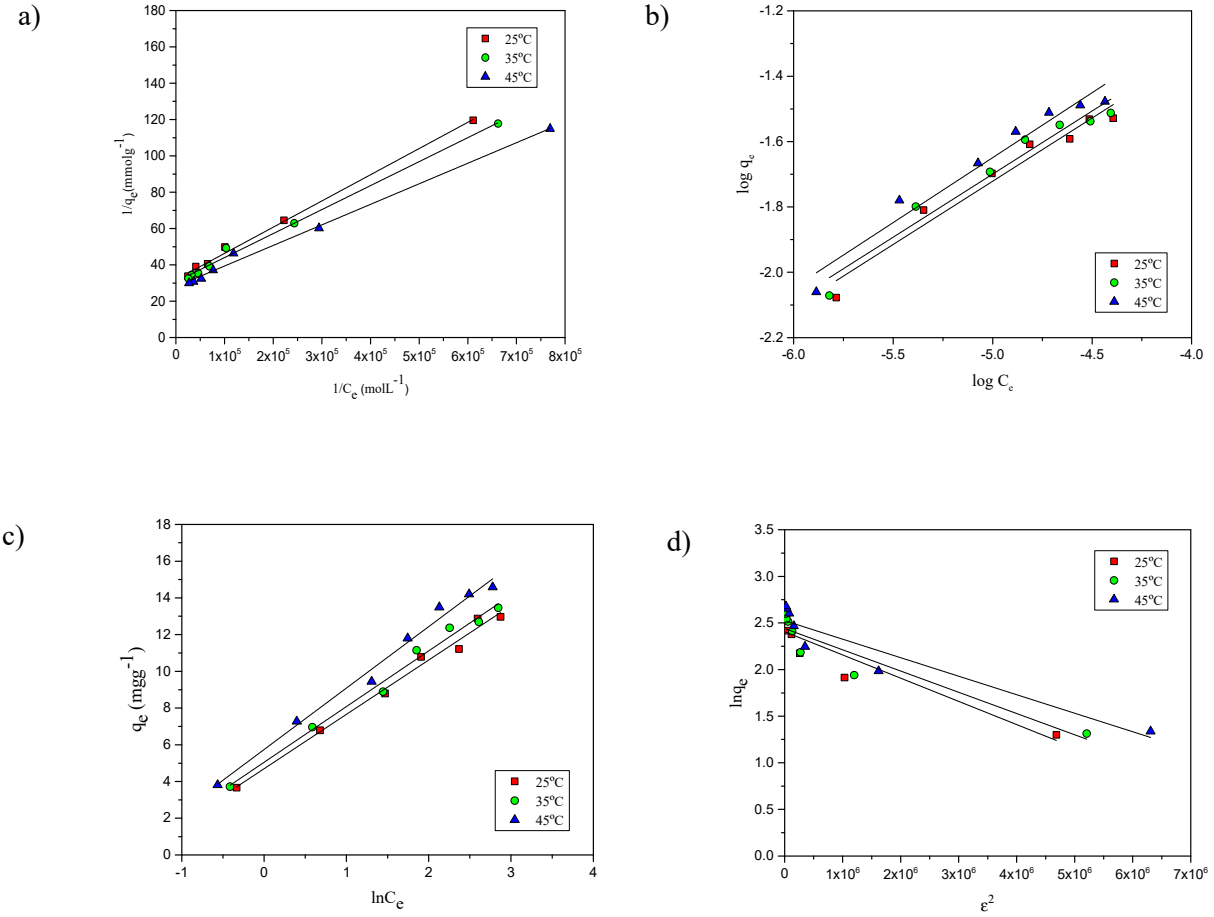
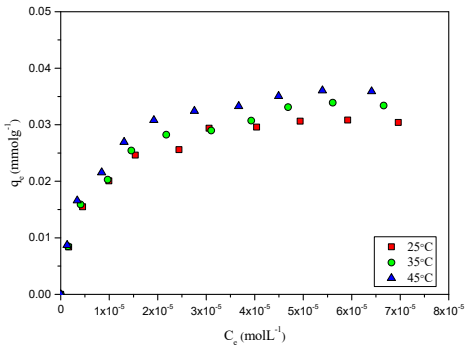


Figure S3 a) Langmuir b) Freundlich, c) Temkin and d) D-R isotherm for the adsorption of ABO onto HC-230-4 at different temperatures.

a)



b)

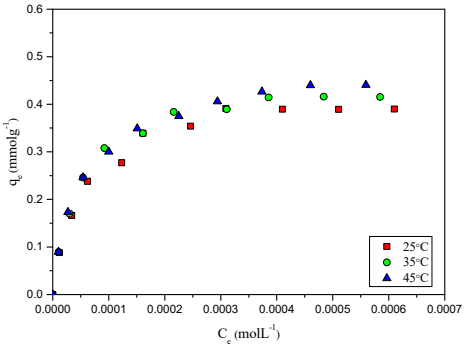


Figure S4. Adsorption isotherm for the removal of ABO onto a) HC-230-4 and b) AC-850-5 at different temperatures

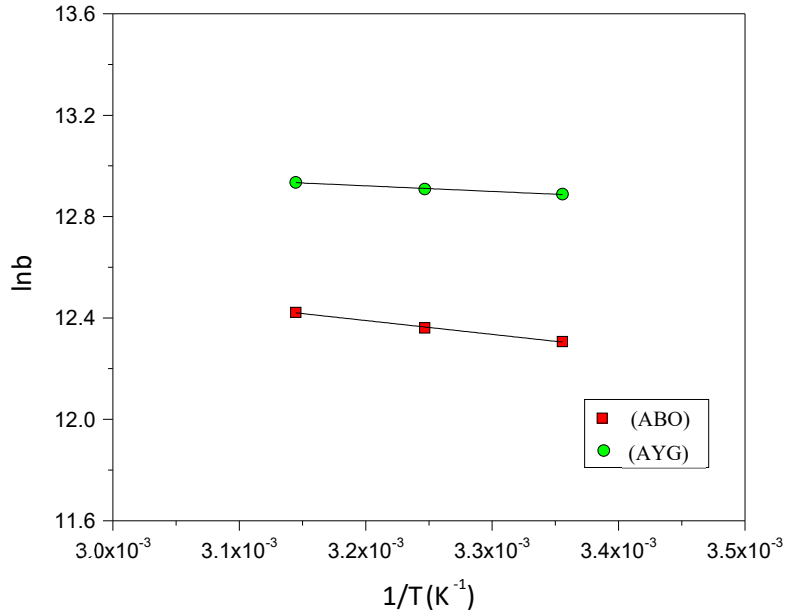
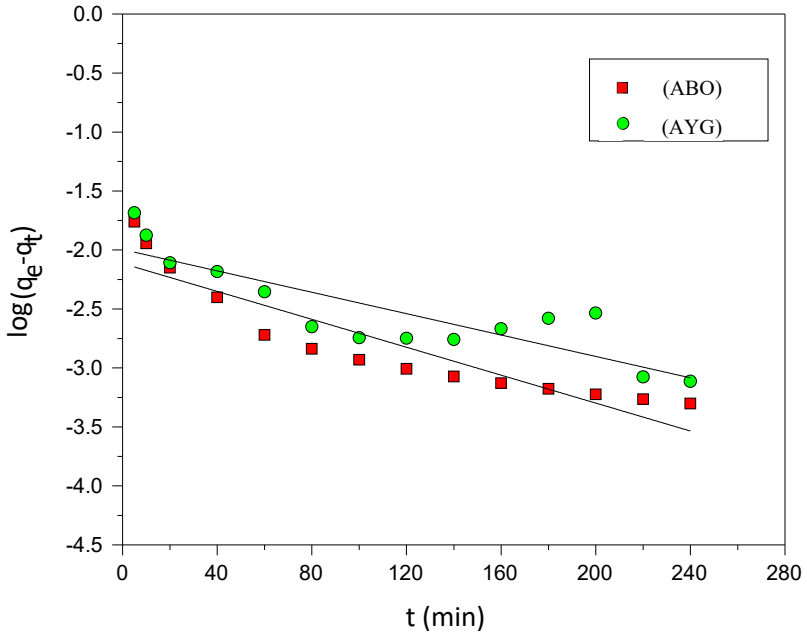
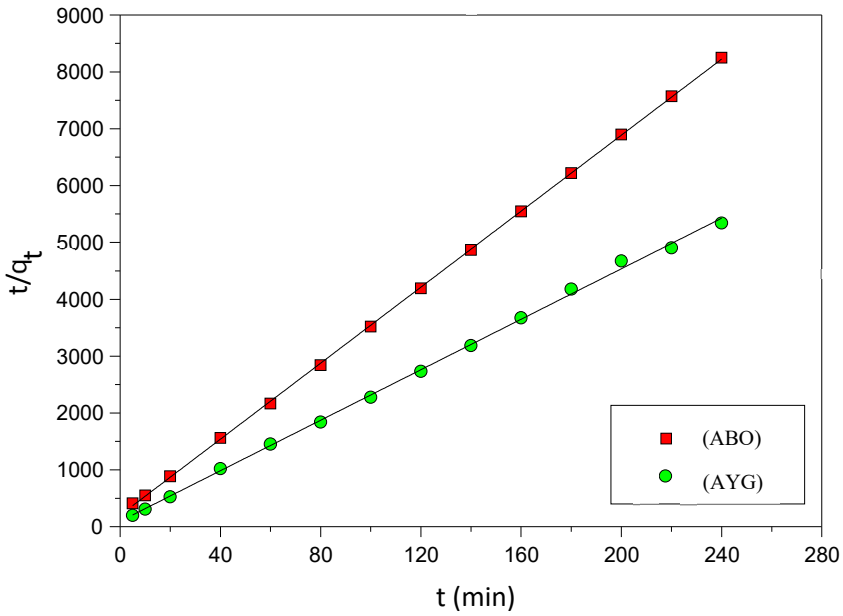


Figure S5 Van't Hoff plot for the adsorption of AYG and ABO onto HC-230-4 at 25°C

a)


0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-3.5
-4.0
-4.5
log(qe-qt)
0
40
80
120
160
200
240
280
t (min)
(ABO)
(AYG)

b)


9000
8000
7000
6000
5000
4000
3000
2000
1000
0
t/qt
0
40
80
120
160
200
240
280
t (min)
(ABO)
(AYG)

c)

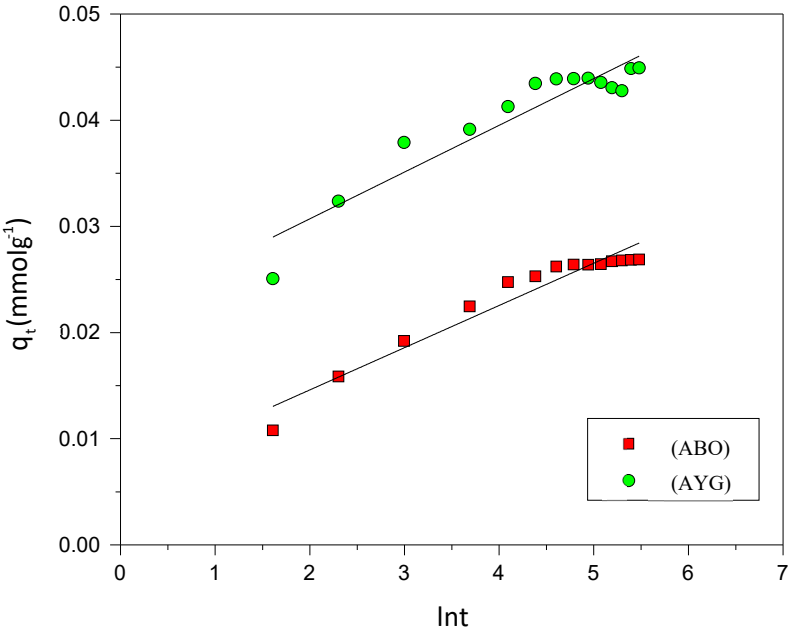


Figure S6 a) PFO; b) PSO and c) Elovich kinetic plots for the adsorption of AYG and ABO onto HC-230-4 (C_i: 6×10^{-5}M; T: 25°C)