Electronic Supplementary Material (ESI) for RSC Advances.

Effect of phenol on the synthesis of benzoxazine

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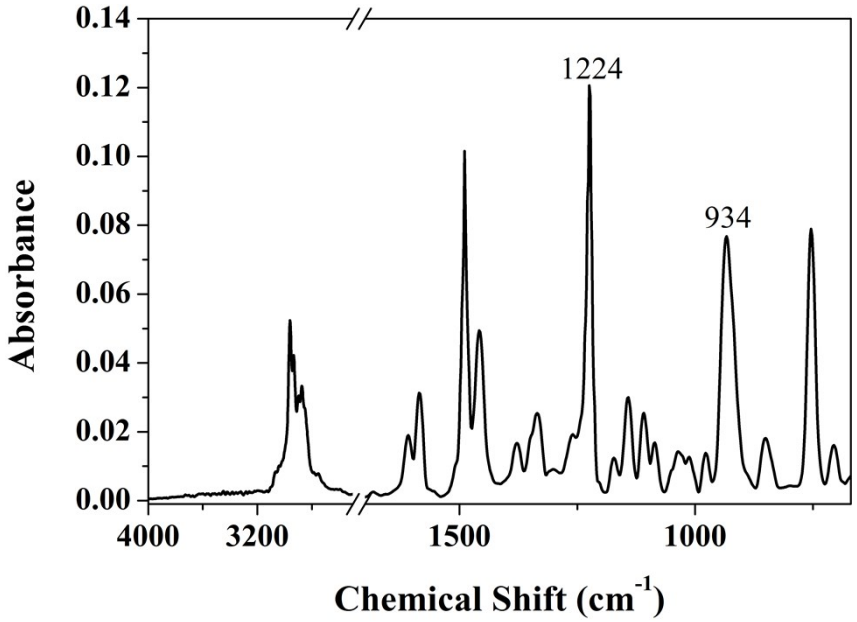


Fig. S1 FTIR spectrum of 3,4-dihydro-2*H*-3-propyl-1,3-benzoxazine.

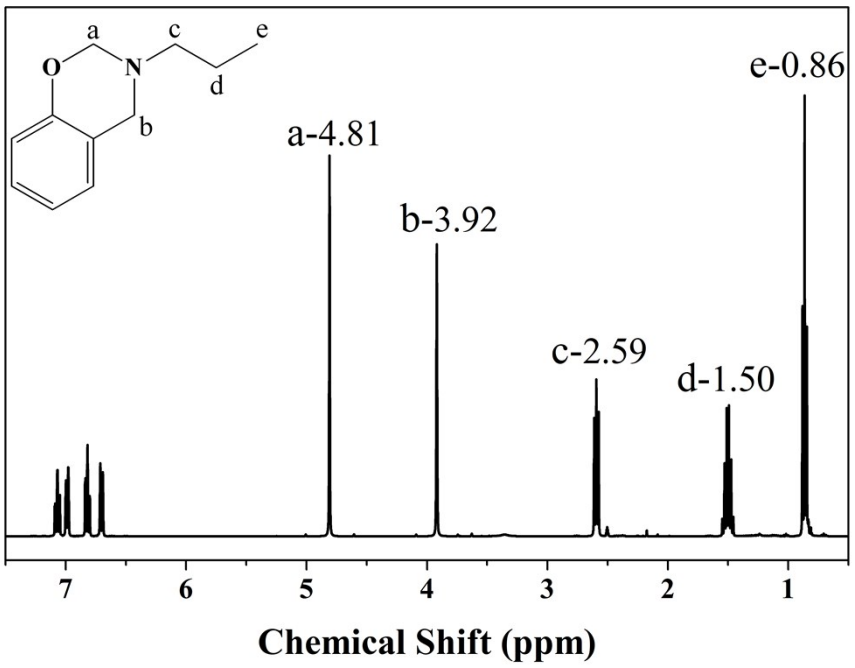


Fig. S2 ^{1}H NMR spectrum of 3,4-dihydro-2*H*-3-propyl-1,3-benzoxazine.

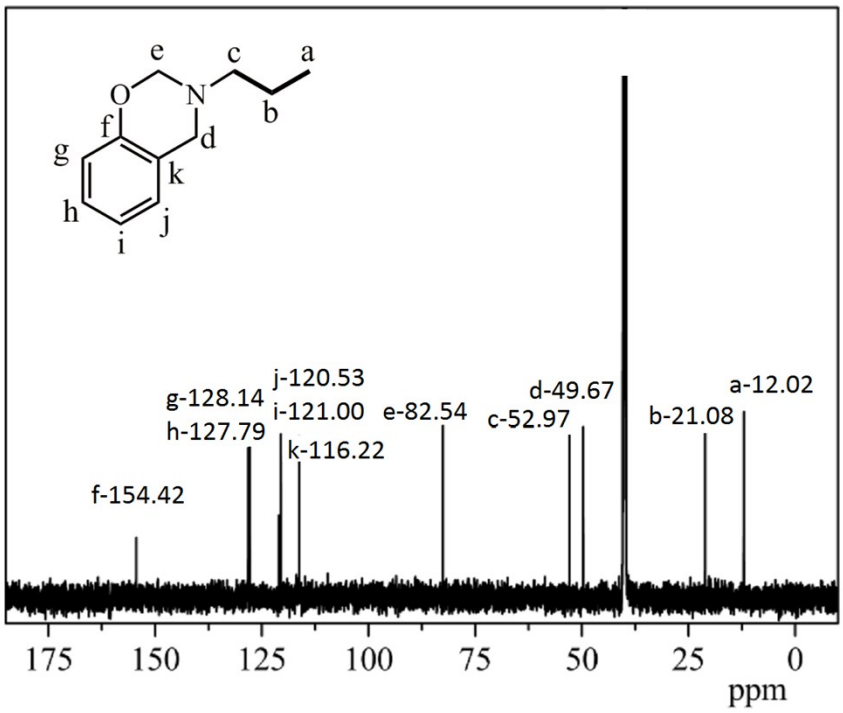
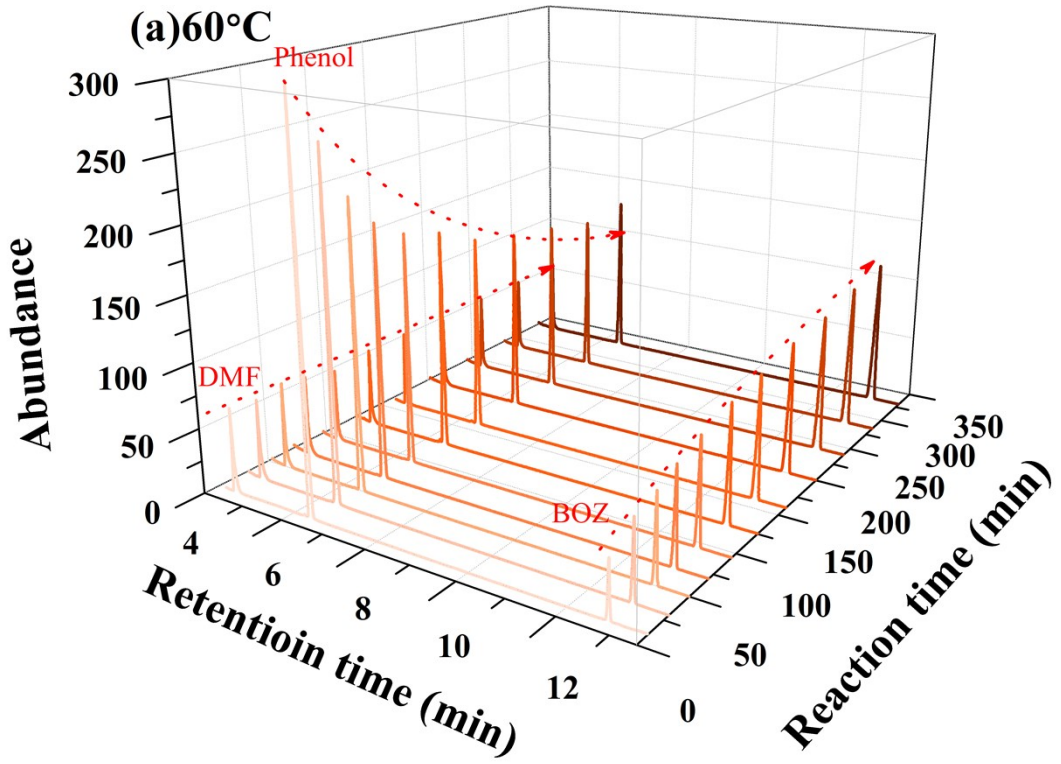
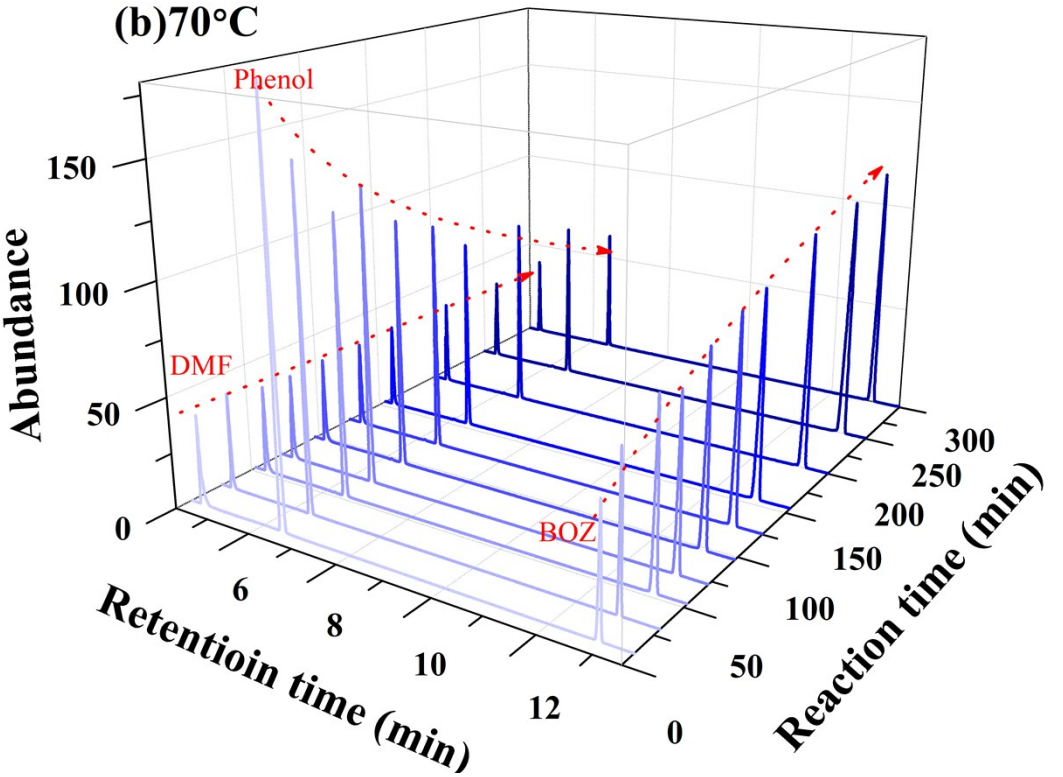


Fig. S3 ^{13}C NMR spectrum of 3,4-dihydro-2*H*-3-propyl-1,3-benzoxazine.


(a)60°C
Phenol
DMF
BOZ
Abundance
300
250
200
150
100
50
0
4
6
8
10
12
Retentioin time (min)
350
300
250
200
150
100
50
0
Reaction time (min)


(b)70°C
Phenol
DMF
BOZ
Abundance
150
100
50
0
6
8
10
12
Retentioin time (min)
300
250
200
150
100
50
0
Reaction time (min)

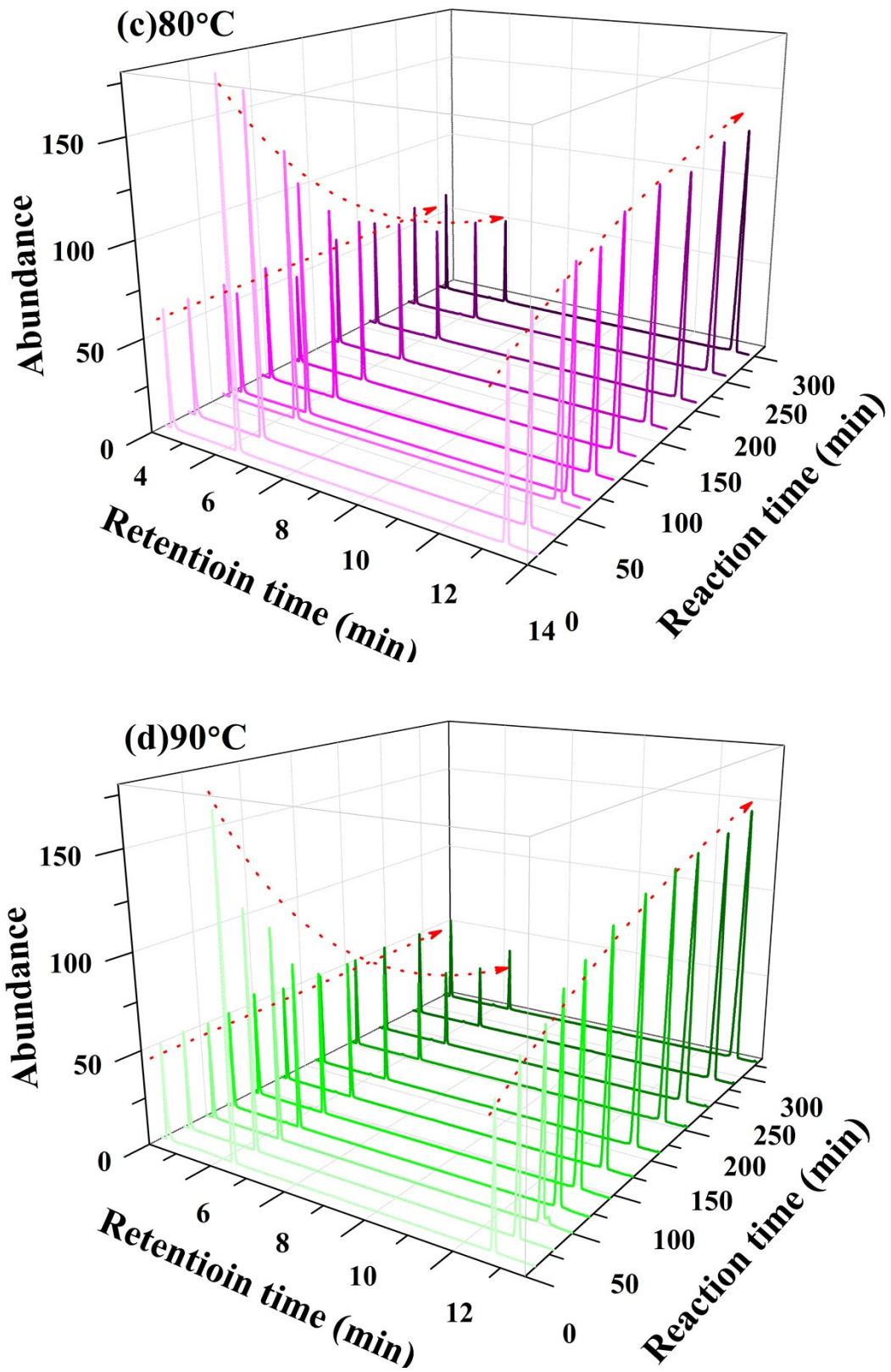


Fig. S4 GC spectra of the reaction of n-propylamine, phenol and aqueous formaldehyde with different time at different temperatures.
(a) 60 °C, (b) 70 °C, (c) 80 °C, (d) 90 °C.

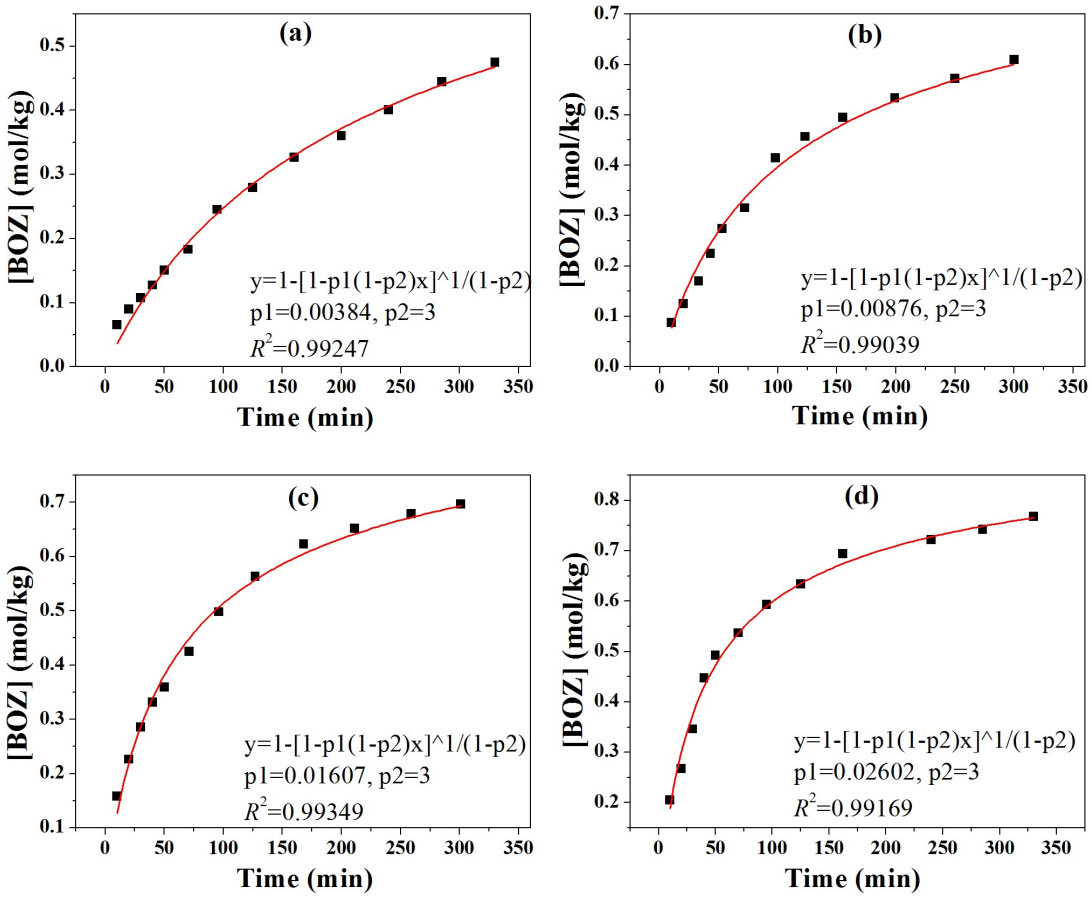


Fig. S5 Concentrations of benzoxazine versus reaction time at (a) 60 °C, (b) 70 °C, (c) 80 °C, (d) 90 °C.

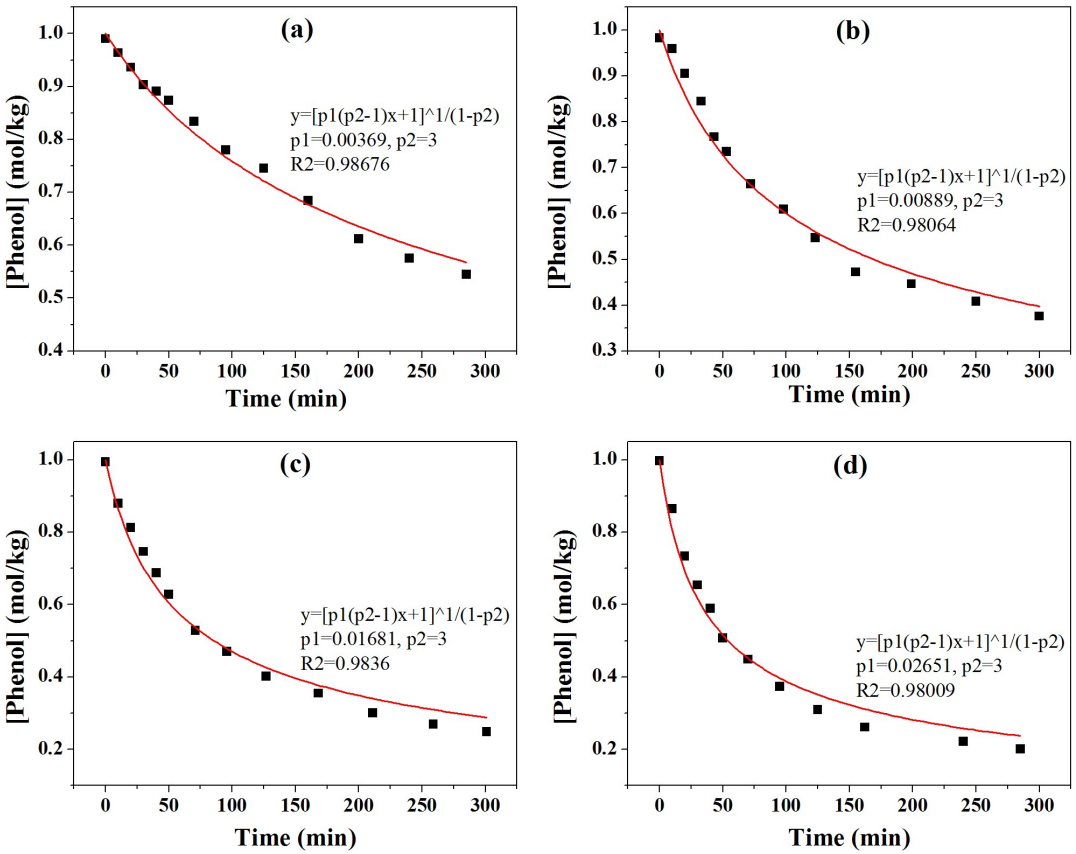


Fig. S6 Concentrations of phenol versus reaction time at (a) 60 °C, (b) 70 °C, (c) 80 °C, (d) 90 °C.