

# Supplementary Material

## Kinetic modeling study on the combustion characterization of synthetic C3 and C4 alcohols for lean premixed prevaporized combustion

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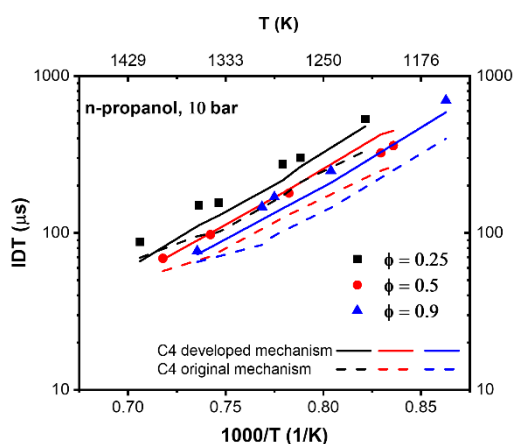
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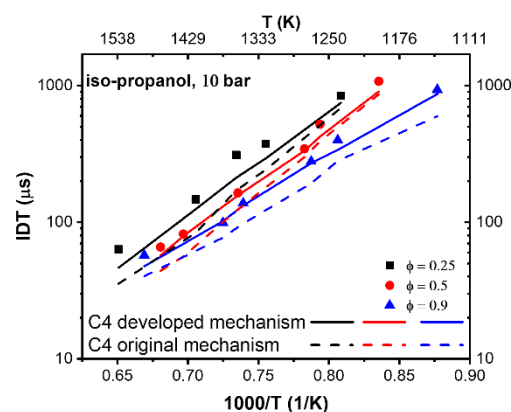
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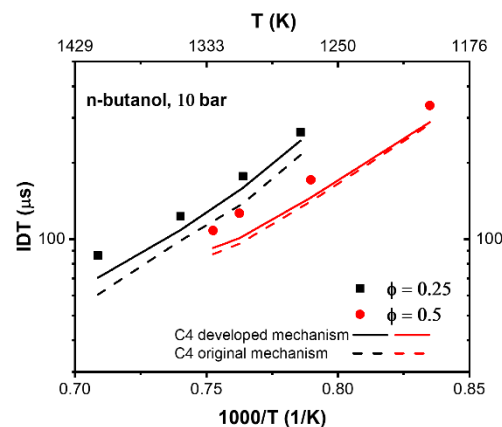
### Comparison between the original C4 mechanism and the developed C4 mechanism



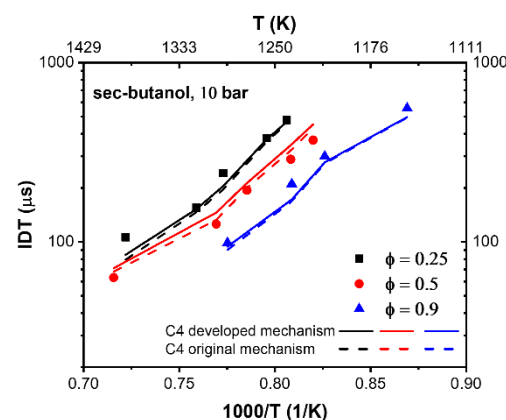
(a)



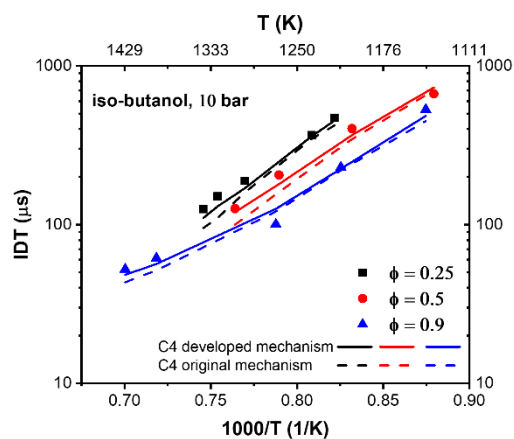
(b)



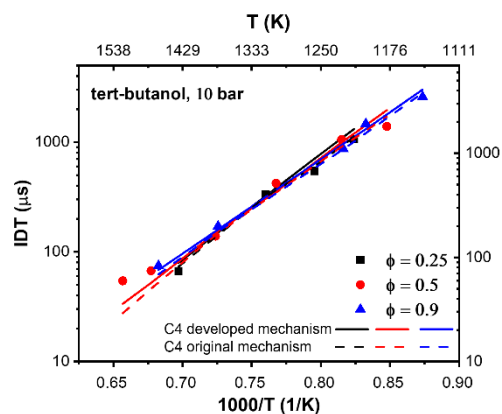
(c)



(d)

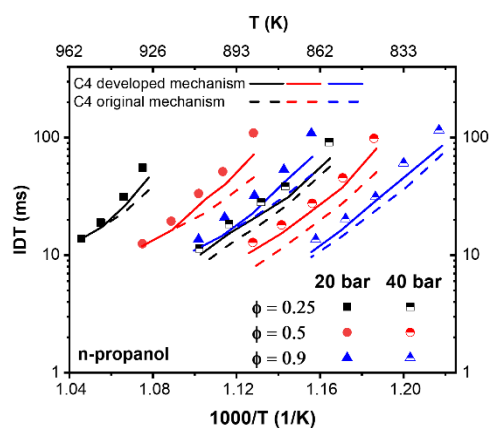


(e)

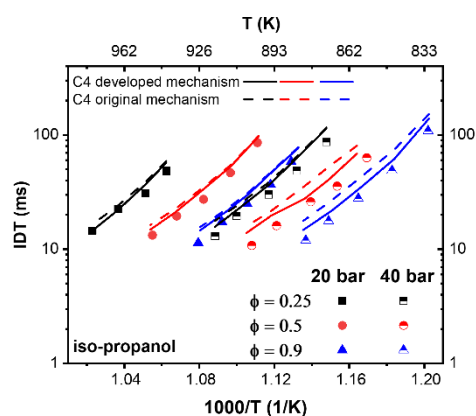


(f)

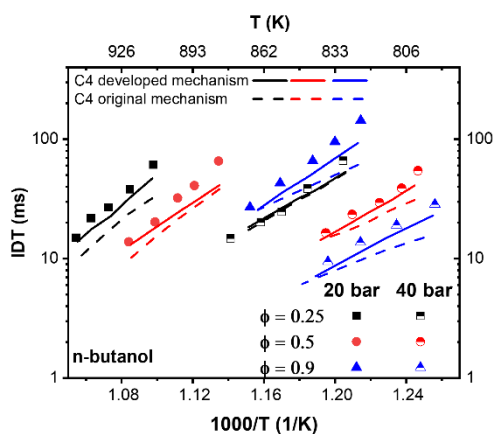
**Figure S1.** IDTs of (a) n-propanol, (b) iso-propanol, (c) n-butanol, (d) sec-butanol, (e) iso-butanol and (f) tert-butanol measured in the HPST at 10 bar and  $\phi = 0.25, 0.5$  and  $0.9$ . (Symbols: experimental points; Lines: model predictions)



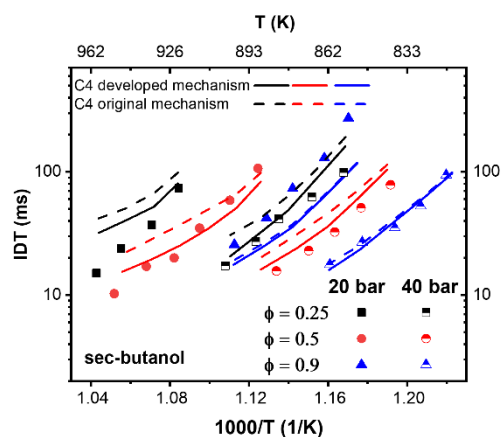
(a)



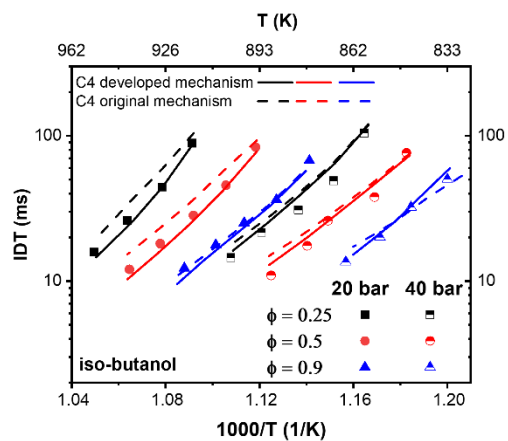
(b)



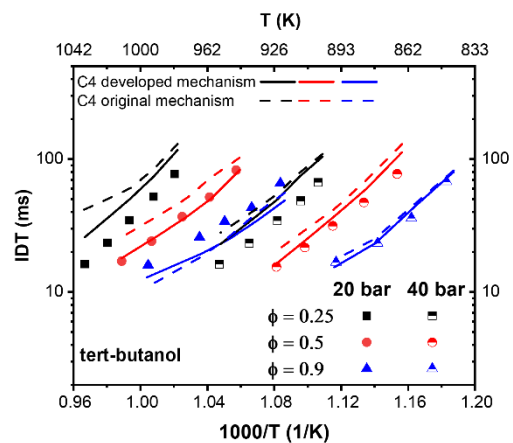
(c)



(d)



(e)



(f)

**Figure S2.** IDTs of (a) n-propanol, (b) iso-propanol, (c) n-butanol, (d) sec-butanol, (e) iso-butanol and (f) tert-butanol measured in the RCM at 20 and 40 bar and  $\phi = 0.25, 0.5$  and  $0.9$ . (Symbols: experimental points; Lines: model predictions)