Microwave-Assisted Synthesis of Mono- and Disubstituted 4-Hydroxyacetophenone Derivatives via Mannich Reaction: synthesis, XRD and HSanalysis

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Figure S1. ¹HNMR spectrum of compound 2a in CDCl₃.



Figure S2. ¹³C NMR &Dept 135 spectrum of compound 2a in CDCl₃.



Figure S3. MS spectrum of compound 2a



Figure S5. ¹³C NMR spectrum of compound 2b in Methanol- d_4



Figure S6. MS spectrum of compound 2b



Figure S7. ¹HNMR spectrum of compound 3a in Methanol- d_4



Figure S8. ¹³C NMR spectrum of compound 3a in Methanol- d_4



Figure S9. MS spectrum of compound 3a



Figure S10. ¹HNMR spectrum of compound 3b in DMSO- $d_{\hat{\sigma}}$



Figure S11. ¹³C NMR spectrum of compound 3b in DMSO- $d_{\mathcal{G}}$



Figure S13. ¹HNMR spectrum compound 4a in CDCl₃.



Figure S14. ¹³C NMR spectrum compound 4a in CDCl₃.



Figure S15. MS spectrum of compound 4a



Figure S16. ¹HNMR spectrum of compound 4b in DMSO- $d_{\hat{\sigma}}$



Figure S17. ¹³C NMR spectrum of compound 4b in DMSO- d_{δ}



Figure S18. MS spectrum of compound 4b



Figure S19. ¹HNMR spectrum of compound 5a in CDCl₃.



Figure S 20. ¹³C NMR spectrum of compound 5a in CDCl₃.



Figure S 21. MS spectrum of compound 5a