Supplementary Materials



Figure S1. ¹H and ¹³C NMR spectra of ethyl 3-oxo-3-phenyl-2-(tetrahydrofuran-2-yl) propanoate (**4a**).



Figure S2. ¹H and ¹³C NMR spectra of ethyl 3-oxo-2-(tetrahydrofuran-2-yl)-3-(o-tolyl) propanoate (**4b**).



Figure S3. ¹H and ¹³C NMR spectra of ethyl 3-oxo-2-(tetrahydrofuran-2-yl)-3-(p-tolyl) propanoate (**4c**).



Figure S4. ¹H and ¹³C NMR spectra of ethyl 3-(4-methoxyphenyl)-3-oxo-2- (tetrahydrofuran-2-yl)propanoate (**4d**).



Figure S5. ¹H and ¹³C NMR spectra of ethyl 3-(4-fluorophenyl)-3-oxo-2-(tetrahydrofuran-2-yl)propanoate (**4e**).



Figure S6. ¹H and ¹³C NMR spectra of ethyl 3-(4-chlorophenyl)-3-oxo-2-(tetrahydrofuran-2-yl)propanoate (**4f**).



Figure S7. ¹H and ¹³C NMR spectra of ethyl 3-(4-bromophenyl)-3-oxo-2-(tetrahydrofuran-2-yl)propanoate (**4g**).



Figure S8. ¹H and ¹³C NMR spectra of ethyl 3-(4-iodophenyl)-3-oxo-2-(tetrahydrofuran-2-yl) propanoate (**4h**).



Figure S9. ¹H and ¹³C NMR spectra of ethyl 3-oxo-2-(tetrahydrofuran-2-yl)butanoate (4i).



Figure S10. ¹H and ¹³C NMR spectra of ethyl 3-oxo-2-(tetrahydrofuran-2-yl)pentanoate (4j).



Figure S11. ¹H and ¹³C NMR spectra of ethyl 4-methyl-3-oxo-2-(tetrahydrofuran-2-yl) pentanoate (**4**k).



Figure S12. ¹H and ¹³C NMR spectra of dimethyl 2-(tetrahydrofuran-2-yl)malonate (4l).



Figure S13. ¹H and ¹³C NMR spectra of diethyl 2-(tetrahydrofuran-2-yl)malonate (4m).



Figure S14. ¹H and ¹³C NMR spectra of diisopropyl 2-(tetrahydrofuran-2-yl)malonate (4n).



Figure S15. ¹H and ¹³C NMR spectra of dibenzyl 2-(tetrahydrofuran-2-yl)malonate (40).



Figure S16. ¹H and ¹³C NMR spectra of 3-(tetrahydrofuran-2-yl)pentane-2,4-dione (4p).



Figure S17. ¹H and ¹³C NMR spectra of ethyl 2-(5-methyltetrahydrofuran-2-yl)-3-oxo-3-phenylpropanoate (**4q**).



Figure S18. ¹H and ¹³C NMR spectra of ethyl 3-oxo-3-phenyl-2-(tetrahydro-2H-pyran-2-yl) propanoate (**4r**).



Figure S19. ¹H and ¹³C NMR spectra of diisopropyl 2-(4-hydroxy-1-(4-methylphenyl sulfonamido)butyl)malonate (**5n**).