**Simple and Efficient Methods of Synthesis of 3,3-Diarylcyclobutanone and 3,3-Diarylcyclobutylamine
Derivatives Using the $\text{TiCl}_4/\text{R}_3\text{N}$ Reagent System**

Mariappan Periasamy,* K. Natarajan Jayakumar and Pandi Bharathi

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General Experimental Methods: ^1H -NMR (200 MHz) and ^{13}C -NMR (50 MHz) spectra were recorded in CDCl_3 unless otherwise stated and TMS was used as reference ($\delta=0$ ppm). The chemical shifts are reported in ppm on the δ scale relative to CDCl_3 (77.0 ppm). Melting points are uncorrected. Dichloromethane and dichloroethane were distilled over calcium hydride and dried over molecular sieves. Diglyme was distilled over sodium and benzophenone ketyl under reduced pressure. Chromatographic purification was conducted by column chromatography using 100-200 mesh silica gel or neutral alumina. All reactions and manipulations were carried out under a dry nitrogen atm. All yields reported are isolated yields of materials, adjudged homogeneous by TLC analysis.

Figure S1. ^{13}C -NMR Spectrum of the compound 4

Figure S2. ¹³C-NMR Spectrum of the compound 5

Figure S3. ^{13}C -NMR Spectrum of the compound 6

Figure S4. ^{13}C -NMR Spectrum of the compound 7

Figure S5. ^{13}C -NMR Spectrum of the compound 8

Figure S6. ¹³C-NMR Spectrum of the compound 9

Figure S7. ¹³C-NMR Spectrum of the compound 10

Figure S8. ¹³C-NMR Spectrum of the compound 11

Figure S10. ¹³C-NMR Spectrum of the compound 14

Figure S11. ¹³C-NMR Spectrum of the compound 15

Figure S12. ¹³C-NMR Spectrum of the compound 16

Figure S13. ¹³C-NMR Spectrum of the compound 17

Figure S14. ¹³C-NMR Spectrum of the compound 18

Figure S15. ¹³C-NMR Spectrum of the compound 19

Figure S16. ¹³C-NMR Spectrum of the compound 20

Figure S17. ¹³C-NMR Spectrum of the compound 21

Figure S18. ¹³C-NMR Spectrum of the compound **22**

Figure S19. ¹³C-NMR Spectrum of the compound **23**