Supporting Information

Fluoroquinolones from Imidoylketenes and Iminopropadienones, Ar-N=C=C=C=O

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Content:

IR spectra (cumulene region) of the products of FVT of fluorophenylamino-Meldrum's acids 8a-c (Figs S1–S3), 1-(fluorophenyl)-4-carbomethoxy-1,2,3-triazoles 13a-c (Figs S4–S7), and methyl fluorophenyliminoketeniminecarboxylates 11a-c (Figs S5–S7) at various temperatures.

Fig. S1. FVT of 2,2-dimethyl-5-[3-fluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione 8a at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene 10a, I = ketenimine 11a. P = iminopropadienone 9a. Abscissa in wavenumbers.
Fig. S2. FVT of 2,2-dimethyl-5-[4-fluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione 8b at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene 10b, I = ketenimine 11b. P = iminopropadienone 9b. Abscissa in wavenumbers.

Fig. S3. FVT of 2,2-dimethyl-5-[2,3,4-trifluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione 8c at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene 10c, I = ketenimine 11c. P = iminopropadienone 9c. Abscissa in wavenumbers.
Fig. S4. IR spectra (cumulene region) of the products of FVT of 1-(fluorophenyl)-4-carbomethoxy-1,2,3-triazoles 13a-c at various temperatures (°C). Abscissae in wavenumbers (cm\(^{-1}\)). K = α-imidoylketene 10; I = α-oxoketenimine 11. Top: products from 1-(3-fluorophenyl)-4-carbomethoxy-1,2,3-triazole 13a. Middle: products from 1-(4-fluorophenyl)-4-carbomethoxy-1,2,3-triazole 13b. Bottom: products from 1-(2,3,4-trifluorophenyl)-4-carbomethoxy-1,2,3-triazole 13c. The ketenes K and ketenimines I are identical with the ketenes and ketenimines recorded in Figs S1-S3.
Fig. S5. Top: 3-Fluorophenylloxoketimine 11a (I), distilled, in CCl$_4$. Bottom: product of FVT of 11a at 400°C, isolated at 77 K. K = ketene 10b Q = quinolone 12a.
Fig. S7. Top: 2,3,4-trifluorophenyloxoketenimine 11c (I), distilled, in CCl₄. Bottom: product of FVT of 11c at 400°C, isolated at 77 K. K = ketene 10c.