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Supporting Information

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

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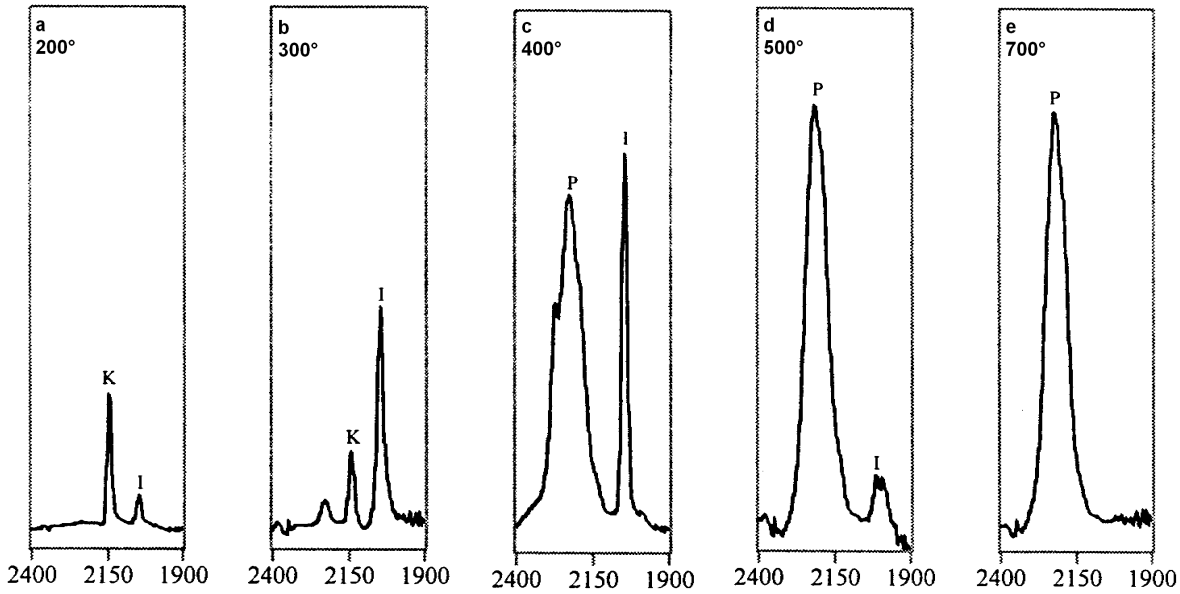

Fig. S1. FVT of 2,2-dimethyl-5-[3-fluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione **8a** at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene **10a**, I = ketenimine **11a**. P = iminopropadienone **9a**. Abscissa in wavenumbers.

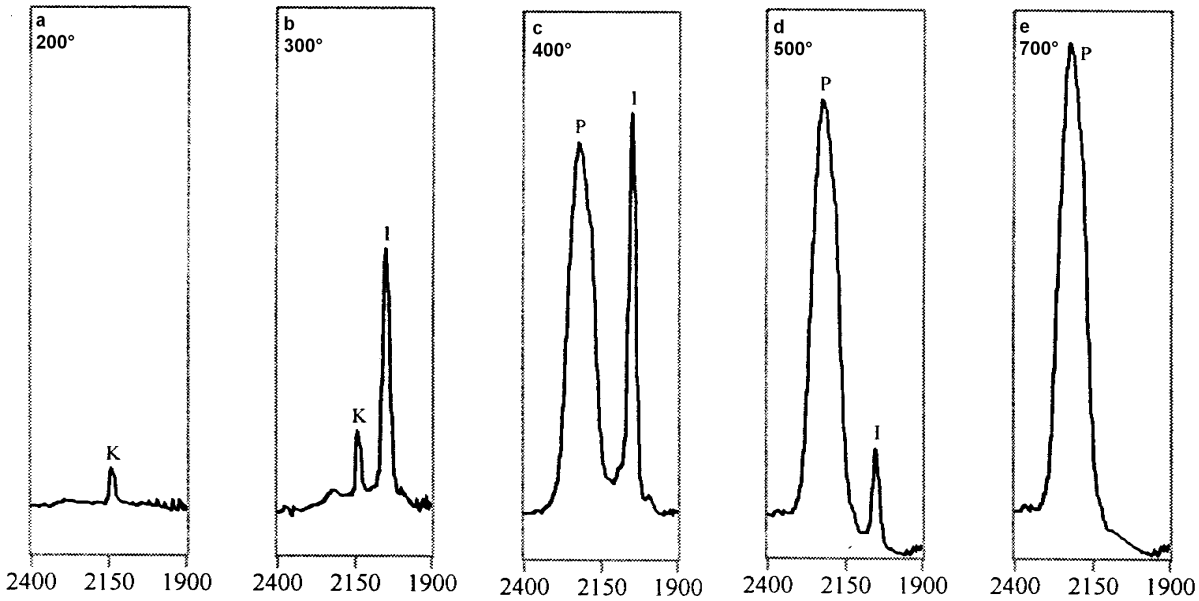

Fig. S2. FVT of 2,2-dimethyl-5-[4-fluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione **8b** at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene **10b**, I = ketenimine **11b**. P = iminopropadienone **9b**. Abscissa in wavenumbers.

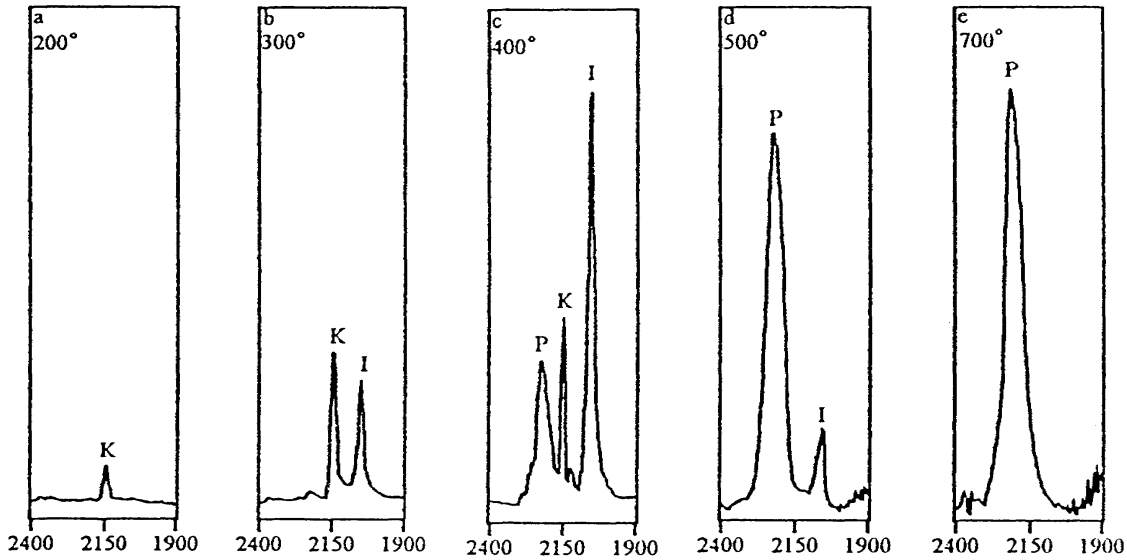

Fig. S3. FVT of 2,2-dimethyl-5-[2,3,4-trifluorophenylamino(methoxy)]-1,3-dioxane-4,6-dione **8c** at 200 – 700 °C. IR spectra of the products at 77 K. K = ketene **10c**, I = ketenimine **11c**. P = iminopropadienone **9c**. Abscissa in wavenumbers.

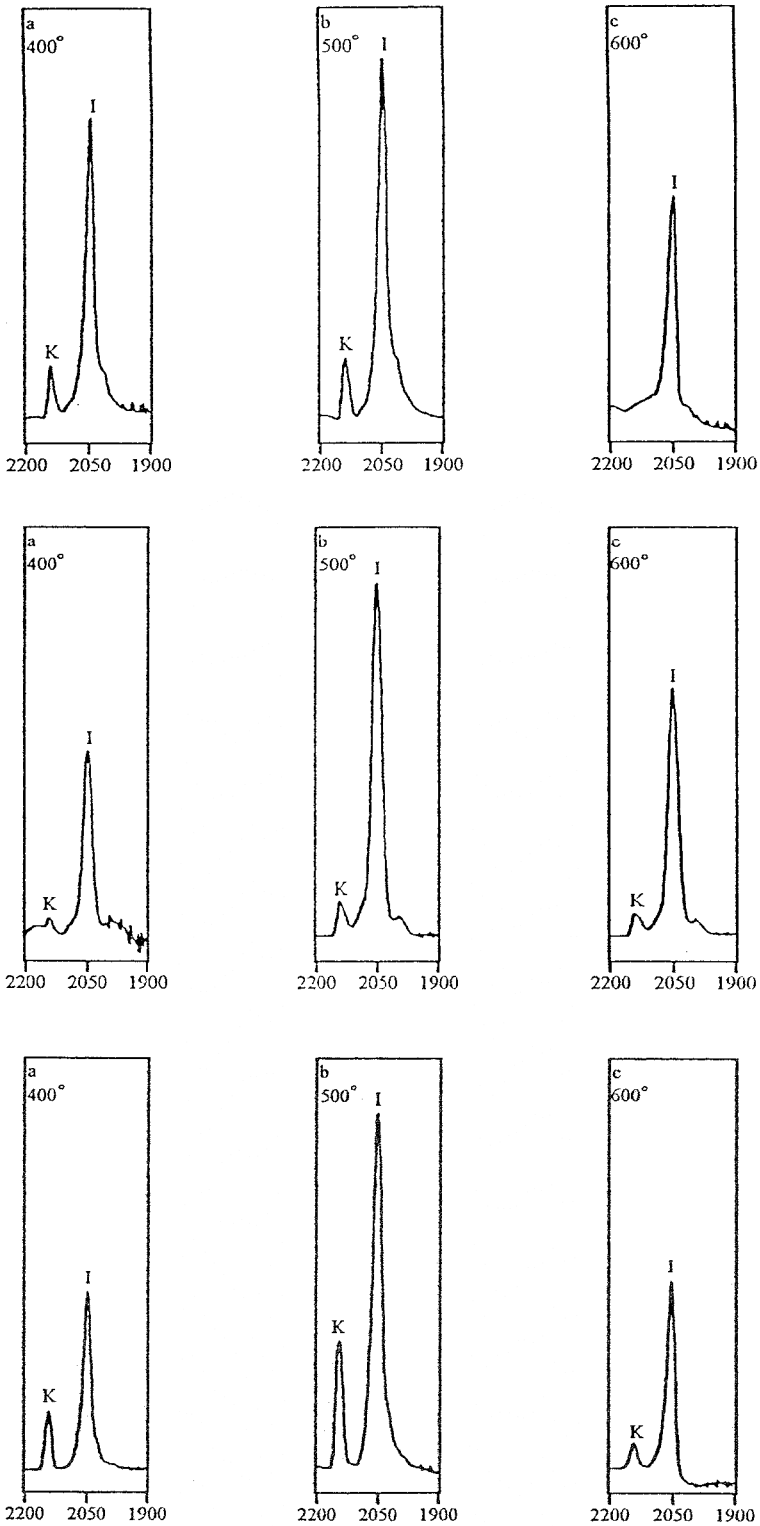

Fig. S4. IR spectra (cumulene region) of the products of FVT of 1-(fluorophenyl)-4-carbomethoxy-1,2,3-triazoles **13a-c** at various temperatures (^{o}C). Abscissae in wavenumbers (cm^{-1}). K = α-imidoylketene **10**; I = α-oxoketenimine **11**. Top: products from 1-(3-fluorophenyl)-4-carbomethoxy-1,2,3-triazole **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.

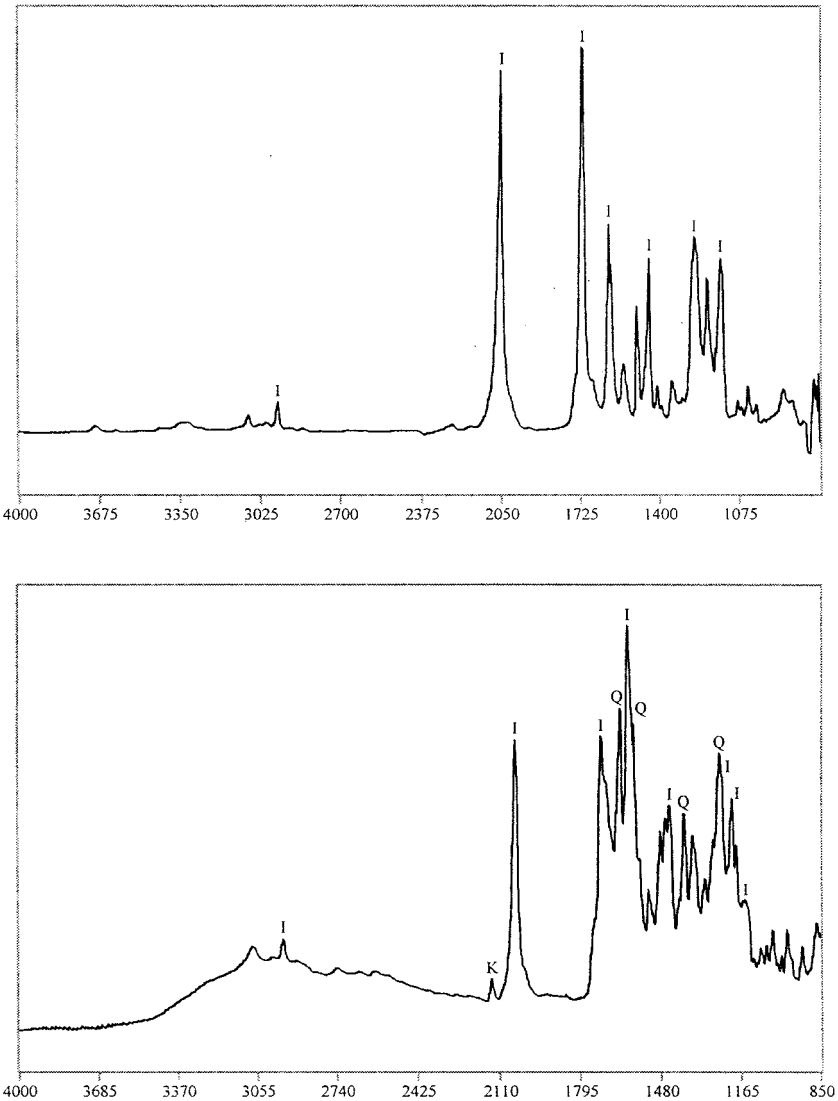

Fig. S5. Top: 3-Fluorophenyloxoketenimine **11a** (I), distilled, in CCl_4. Bottom: product of FVT of **11a** at 400°C, isolated at 77 K. K = ketene **10b** Q = quinolone **12a**.

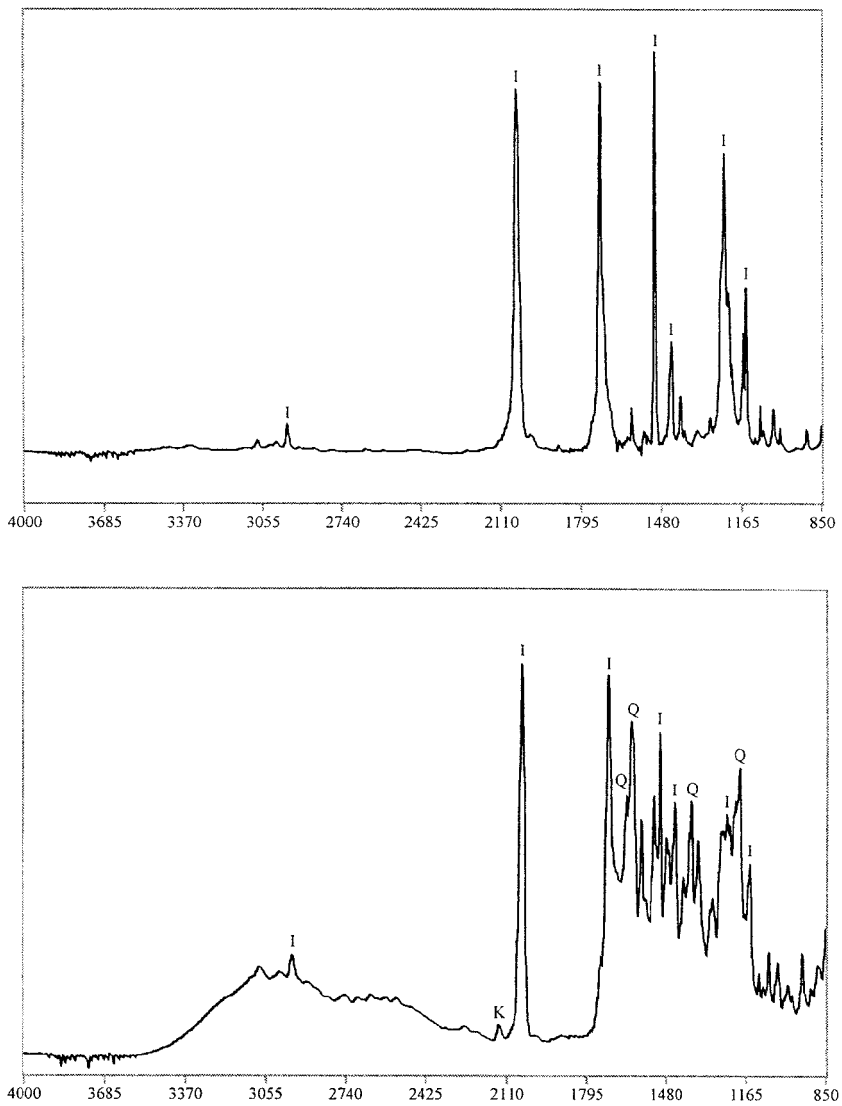

Fig S6. Top: 4-Fluorophenyloxoketenimine **11b** (I), distilled, in CCl_4. Bottom: product of FVT of **11b** at 400°C, isolated at 77 K. K = ketene **10b**. Q = quinolone **12b**.

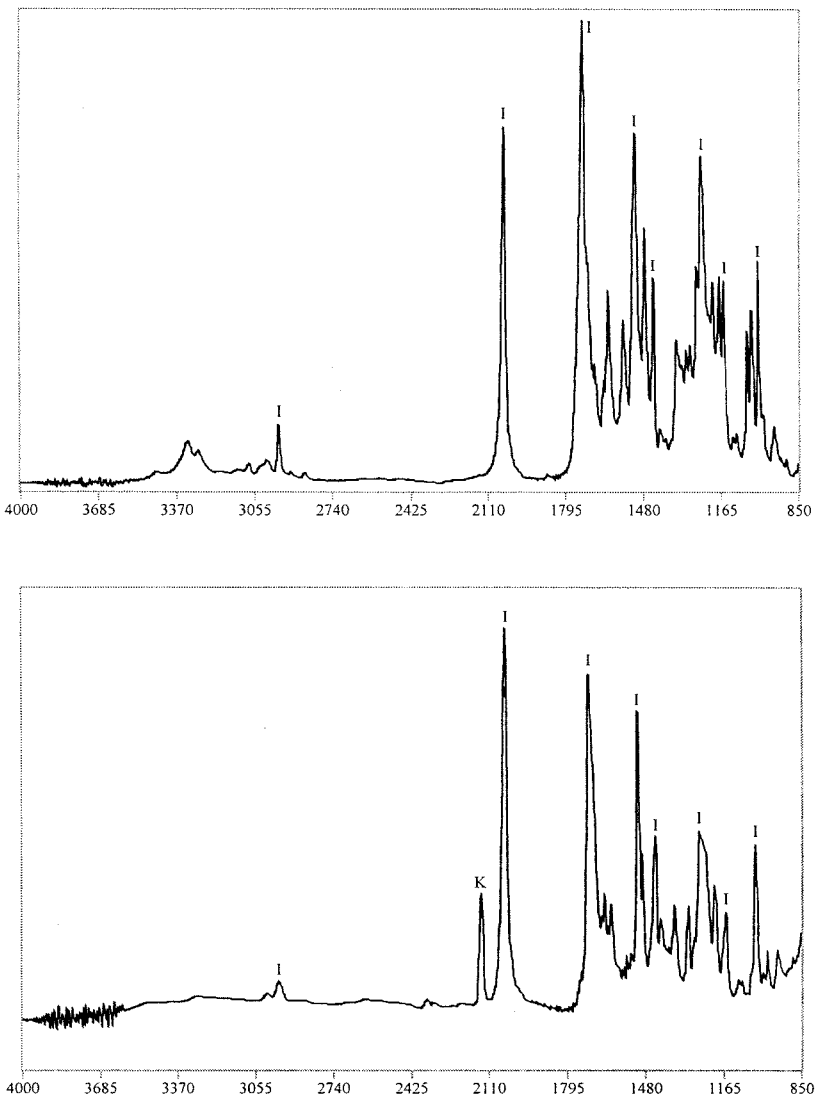

Fig. S7. Top: 2,3,4-trifluorophenyloxoketenimine **11c** (I), distilled, in CCl_4. Bottom: product of FVT of **11c** at 400°C, isolated at 77 K. K = ketene **10c**.