

Table 1. Examples of the reaction (2) → (5)

Anilide (2)				Yield of (5) [%]	M. p. [°C]
R ¹	R ²	R ³	R ⁴		
C ₂ H ₅	H	H	H	100	199
C ₂ H ₅	H	CH ₃	H	73	72
C ₂ H ₅	CH ₃	H	H	82	238
C ₂ H ₅	H	H	<i>p</i> -CH ₃	100	241
C ₂ H ₅	H	H	<i>o</i> -CH ₃	89	224
C ₂ H ₅	H	H	<i>p</i> -Cl	100	275
C ₂ H ₅	H	H	<i>o</i> -Cl	100	210
C ₂ H ₅	CH ₃	H	<i>o</i> -CH ₃	98	180

Starting with aminoanthracene or aromatic diamines, we obtained more highly condensed ring systems.

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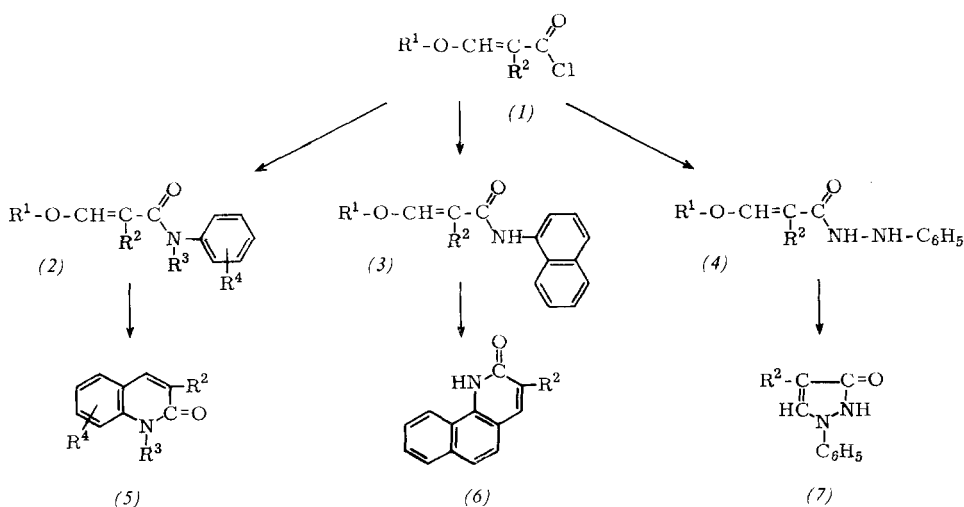
[1] U.S. Pat. 2768 174 (Oct. 23rd, 1956) Societ  des usines chimiques Rh ne-Poulenc, inventors: R. E. Paul and S. Tchelitcheff; Chem. Abstr. 51, 5818 (1957).

Syntheses with β -Alkoxyacrylyl Chlorides

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The interaction of β -alkoxyacrylyl chlorides (1) [1] with alcohols, phenols, thiophenols, hydrazines, and amines has afforded new derivatives of β -alkoxyacrylic acids, some of which are suitable for the synthesis of otherwise difficultly accessible heterocyclic compounds.



When the anilides (2) are ground with concentrated mineral acids, carbostyrils (5) are obtained smoothly within a few minutes in good yields. Table 1 gives a list of examples.

The action of concentrated acids on the naphthalides (3) gave benzoquinolones (6) [R² = H, m. p. 257 °C, 100 % yield; R² = CH₃, m. p. 240 °C, 95 % yield] and on the phenylhydrazides (4) gave 1-phenylpyrazol-3-ones (7) [R² = H, m. p. 153 °C, 98 % yield].