Copper-catalyzed aerobic oxidative intramolecular amidation of 2-aminophenylacetylenes: A domino process for the synthesis of isatin

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Copies of 1H NMR and 13C NMR Spectra .................................................................
5-Methoxy-1-methylindoline-2,3-dione (2a):

$^1$H NMR Spectrum of compound 2a

$^1$H NMR Spectrum of compound 2a
5-Methoxy-1-propylnindoline-2,3-dione (2b):

$^1$H NMR Spectrum of compound 2b

$^{13}$C NMR Spectrum of compound 2b
1-Butyl-5-methoxyindoline-2,3-dione (2c):
5-Methoxy-1-(penta-1,3-diyn-1-yl)indoline-2,3-dione (2d):

$\text{MeO} \quad \text{N} \quad \text{O} \quad \text{C}_9\text{H}_9$

\[\text{H NMR Spectrum of compound 2d}\]

$\text{MeO} \quad \text{N} \quad \text{O} \quad \text{C}_9\text{H}_9$

\[\text{C NMR Spectrum of compound 2d}\]
1-Heptyl-5-methoxyindoline-2,3-dione (2e):

\[ \text{1H NMR Spectrum of compound 2e} \]

\[ \text{13C NMR Spectrum of compound 2e} \]
1-Methylindoline-2,3-dione (2f):

$^1$H NMR Spectrum of compound 2f

$^{13}$C NMR Spectrum of compound 2f
1-Propylindoline-2,3-dione (2g):

$^{1} \text{H NMR Spectrum of compound 2g}$

$^{13} \text{C NMR Spectrum of compound 2g}$
1-Butylindoline-2,3-dione (2h):

$\text{H NMR Spectrum of compound 2h}$

$\text{C NMR Spectrum of compound 2h}$
1-Pentyldione-2,3-dione (2i):

$\text{H NMR Spectrum of compound 2i}$

$\text{C NMR Spectrum of compound 2i}$
1-Heptylindoline-2,3-dione (2j):

\[ \text{Diagram of the compound} \]

\[ \text{H NMR Spectrum of compound 2j} \]

\[ \text{Diagram of the compound} \]

\[ \text{\textsuperscript{13}C NMR Spectrum of compound 2j} \]
5-Chloro-1-methylindoline-2,3-dione (2k):

$^1$H NMR Spectrum of compound 2k

$^{13}$C NMR Spectrum of compound 2k
5-Chloro-1-propyldoline-2,3-dione (2l):

\[ \text{\textsuperscript{1}H NMR Spectrum of compound 2l} \]

\[ \text{\textsuperscript{13}C NMR Spectrum of compound 2l} \]
5-Chloro-1-heptylindoline-2,3-dione (2m):

\[ 
\begin{align*}
\text{H NMR Spectrum of compound 2m} \\
\end{align*}
\]

\[ 
\begin{align*}
\text{C NMR Spectrum of compound 2m} \\
\end{align*}
\]
5-Chloro-1-nonylindoline-2,3-dione (2n):

\[ \text{H NMR Spectrum of compound 2n} \]

\[ \text{C NMR Spectrum of compound 2n} \]
1-Butyl-5-fluorindoline-2,3-dione (2o):

**$^{1}$H NMR Spectrum of compound 2o**

**$^{13}$C NMR Spectrum of compound 2o**
5-Fluoro-1-pentyldione-2,3-dione (2p):

$\text{^{1}H NMR Spectrum of compound 2p}$

$\text{^{13}C NMR Spectrum of compound 2p}$
5-Fluoro-1-heptylindoline-2,3-dione (2q):
5-Bromo-1-propylindoline-2,3-dione (2r):

$\text{H NMR Spectrum of compound 2r}$

$\text{C NMR Spectrum of compound 2r}$
5-Bromo-1-butylindoline-2,3-dione (2s):

1H NMR Spectrum of compound 2s

13C NMR Spectrum of compound 2s
5-Bromo-1-pentylindoline-2,3-dione (2t):