Design, Synthesis and Preliminary Antimicrobial Evaluation of N-Alkyl Chain Tethered C-5 Functionalized Bis-Isatins

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Scanned (1H, 13C) NMR spectra for the compounds viz. 4a, 4e, 4f, 4m, 4n, 4u, 4v.

1H NMR of 1-[2-(2,3-dioxo-2,3-dihydro-indol-1-yl)-ethyl]-1H-indole-2,3-dione(4a)
$^{13}$CNMR of 1-[2-(2,3-dioxo-2,3-dihydro-indol-1-yl)-ethyl]-1H-indole-2,3-dione(4a)
$^1$H NMR of 1-[6-(2,3-dioxo-2,3-dihydro-indol-1-yl)-hexyl]-1H-indole-2,3-dione(4e):
$^{13}$C NMR of 1-[6-(2,3-dioxo-2,3-dihydro-indol-1-yl)-hexyl]-1H-indole-2,3-dione(4e):
$^1$H NMR of 1-[8-(2,3-dioxo-2,3-dihydro-indol-1-yl)-octyl]-1H-indole-2,3-dione(4f):
$^{13}$C NMR of 1-[8-(2,3-dioxo-2,3-dihydro-indol-1-yl)-octyl]-1H-indole-2,3-dione(4f):
$^1$H NMR of 1-[(2,3-Dioxo-2,3-dihydro-indol-1-yl)-ethyl]-5-fluoro-1H-indole-2,3-dione(4m)
$^{13}$C NMR of 1-[2-(2,3-Dioxo-2,3-dihydro-indol-1-yl)-ethyl]-5-fluoro-1H-indole-2,3-dione(4m)
\(^1\)H NMR of 1-[3-(2,3-Dioxo-2,3-dihydro-indol-1-yl)-propyl]-5-fluoro-1H-indole-2,3-dione(4n):
$^{13}\text{C}$ of NMR 1-[3-(2,3-Dioxo-2,3-dihydro-indol-1-yl)-propyl]-5-fluoro-1H-indole-2,3-dione(4n):
$^1$H NMR of 5-Bromo-1-[4-(2,3-dioxo-2,3-dihydro-indol-1-yl)-butyl]-1H-indole-2,3-dione(4u):
$^{13}$C NMR of 5-Bromo-1-[4-(2,3-dioxo-2,3-dihydro-indol-1-yl)-butyl]-1H-indole-2,3-dione(4u):
$^1$H of NMR5-Bromo-1-[5-(2,3-dioxo-2,3-dihydro-indol-1-yl)-pentyl]-1H-indole-2,3-dione (4v):
$^{13}$CNMR 5-Bromo-1-[5-(2,3-dioxo-2,3-dihydro-indol-1-yl)-pentyl]-1H-indole-2,3-dione (4v):