## Supplementary Methods

## N-methylated triflate derivatives of 4,6-bis-(6-(acrid-9-yl)-pyridin-2-yl)-pyrimidine or

 TAC were synthesized from bisacridine 4,6-bis-(6-(acrid-9-yl)-pyridin-2-yl)-pyrimidine ${ }^{18}$ by adding $20 \mu \mathrm{~L}$ of methyltrifluoromethanesulfonate under argon to 39 mg of bisacridine 4,6 -bis-(6-(acrid-9-yl)-pyridin-2-yl)-pyrimidine ( $5 \times 10^{-5} \mathrm{~mol}$ ) solubilized in 25 mL of hot dry $1,2-$ dichloroethane (US Patent 20080119492). The yellow solution was refluxed for 4 hours, and, after addition of $5 \mu \mathrm{~L}$ of methyltrifluoromethanesulfonate, was further heated for 2 hours. After the solution was allowed to cool to room temperature, the yellow precipitate was filtered and washed twice with diethylether ( 2 mL ) and dried in vacuo to yield 45 mg of a bright yellow solid. ${ }^{1} \mathrm{H}$ NMR ( $400 \mathrm{MHz}, \mathrm{D}_{2} \mathrm{O}$ ): $9.75\left(\mathrm{~s}, 1 \mathrm{H}\right.$, tris), $9.05\left(\mathrm{~s}, 1 \mathrm{H}\right.$, tris), $8.98\left(\mathrm{~d},{ }^{3} J\right.$ $=8.4 \mathrm{~Hz}, 1 \mathrm{H}$, tris $), 8.74(\mathrm{~s}, 1 \mathrm{H}$, bis $), 8.62\left(\mathrm{~d},{ }^{3} J=9 \mathrm{~Hz}, 2 \mathrm{H}\right.$, tris $), 8.57\left(\mathrm{~d},{ }^{3} J=9 \mathrm{~Hz}, 2 \mathrm{H}\right.$, tris), 8.53 (d, ${ }^{3} J=9 \mathrm{~Hz}, 4 \mathrm{H}$, bis), $8.48\left(\mathrm{~s}, 1 \mathrm{H}\right.$, bis), $8.45\left(\mathrm{t},{ }^{3} \mathrm{~J}=8 \mathrm{~Hz}, 1 \mathrm{H}\right.$, tris), $8.42\left(\mathrm{t},{ }^{3} J=8 \mathrm{~Hz}\right.$, 1 H , tris), 8.2-8.3 (m, 5 H from tris, 4 H from bis), 8.0 (d, ${ }^{3} J=7 \mathrm{~Hz}, 2 \mathrm{H}$, tris), 7.9 (d, ${ }^{3} J=8 \mathrm{~Hz}$, 2 H, tris), 7.81 ( $\mathrm{d},{ }^{3} \mathrm{~J}=8 \mathrm{~Hz}, 2 \mathrm{H}$, tris), $7.6-7.8(\mathrm{~m}, 2 \mathrm{H}$ from bis, 4 H from tris), 7.2-7.4 (m, 8 H , bis), $4.89\left(\mathrm{~s}, 3 \mathrm{H}\right.$, tris), $7.03\left(\mathrm{t},{ }^{3} \mathrm{~J}=8 \mathrm{~Hz}, 4 \mathrm{H}\right.$, bis), $4.86(\mathrm{~s}, 6 \mathrm{H}, \mathrm{bis}), 4.84(\mathrm{~s}, 3 \mathrm{H}$, tris), $4.37(\mathrm{~s}$, $3 H$, tris).