**Table S1**: Kinetic rate constants of different molar ratios of TAN/Ag NC prepared with NPPD to AgNO$_3$

| Time (min) | 1:1          | 1:0.5        | 1:0.25       | 1:0.125      |
|------------|--------------|--------------|--------------|--------------|
| 0          | 0.26005      | 0.53493      | 0.26005      | 0.45616      |
| 10         | 0.19451      | 0.35331      | 0.14583      | -0.1087      |
| 20         | 0.14583      | 0.25813      | 0.0198       | -0.43696     |
| 30         | 0.11532      | 0.10803      | -0.1087      | -0.92382     |
| 40         | -0.1087      | -0.11207     | -0.3581      | -1.9951      |
| 50         | -0.2145      | -0.49457     | -0.55165     | -2.70306     |