Table 1. Catalytic Activities of g-C3N4 based Catalysts

|  |  |  |  |
| --- | --- | --- | --- |
|  | | | |
| entry | Catalyst (25 mg) | Solvent (2.0 mL) | Yields (%)a |
| 1 | - | Ethanol | - |
| 2 | SbCl3 | Ethanol | 48 |
|  | Fe3O4 | Ethanol | 14 |
| 4 | g‑C3N4 | Ethanol | 12 |
| 5 | Fe3O4/g‑C3N4 | Ethanol | 22 |
| 6 | SbCl3@Fe3O4/g‑C3N4 | Ethanol | 76 |
| 7 | CeCl3@Fe3O4/g‑C3N4 | Ethanol | 45 |
| 8 | ZnCl2@Fe3O4/g‑C3N4 | Ethanol | 64 |
| 9 | CuCl2@Fe3O4/g‑C3N4 | Ethanol | 41 |
| 10 | FeCl3@Fe3O4/g‑C3N4 | Ethanol | 38 |
| 11 | BiCl3@Fe3O4/g‑C3N4 | Ethanol | 55 |
| 12 | SbCl3@Fe3O4/g‑C3N4 | Methanol | 80 |
| 13 | SbCl3@Fe3O4/g‑C3N4 | CH2Cl2 | 63 |
| 14 | SbCl3@Fe3O4/g‑C3N4 | Water | 68 |
| 15 | SbCl3@Fe3O4/g‑C3N4 | Ethyl acetate | 49 |
| 16 | SbCl3@Fe3O4/g‑C3N4 | CH3CN | 72 |
| 17 | SbCl3@Fe3O4/g‑C3N4 | THF | 58 |
| 18 | SbCl3@Fe3O4/g‑C3N4 | Glycerol | 86 |
| 19 | SbCl3@Fe3O4/g‑C3N4 | Ethylene glycol | 95 |

a Isolated yields.

Table 2. The synthesis of 3-aminoimidazo[1,2-a]pyridines under optimized conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | | | | |
| ***Entry*** | **product** | | **yield** | **m.p**  **found** | **m.p r**  **eported** |
| *1* |  | **4a** | 95 | 176-178 | 177-17928 |
| *2* |  | **4b** | 88 | 190-192 | 188-19139 |
| *3* |  | **4c** | 72 | 156-157 | 154-15640 |
| *4* |  | **4d** | 83 | 167-169 | 166-16842 |
| *5* |  | **4e** | 85 | 164-166 | 167-16931 |
| *6* |  | **4f** | 79 | 166-168 | 167-16934 |
| *7* |  | **4g** | 74 | 190-193 | 188-19133 |
| *8* |  | **4h** | 94 | 220-223 | 218-22134 |
| *9* |  | **4i** | 77 | 160-162 | 161-16441 |
| *10* |  | **4j** | 83 | 212-214 | 208-21127 |
| *11* |  | **4k** | 79 | 112-114 | Viscose oil33 |
| *12* |  | **4l** | 76 | 124-126 | 110-11340 |

a Isolated yields.