

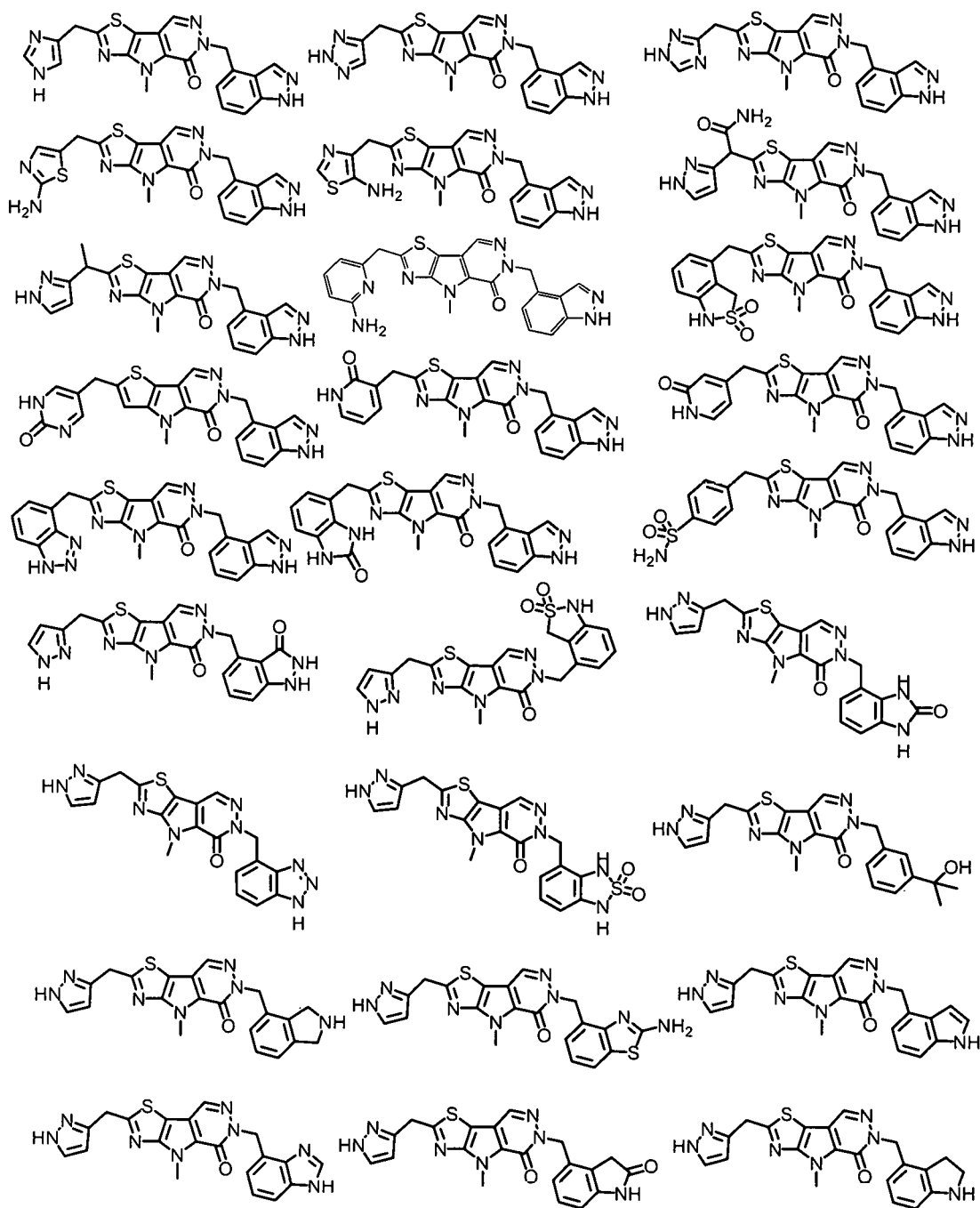


FIGURE 1A

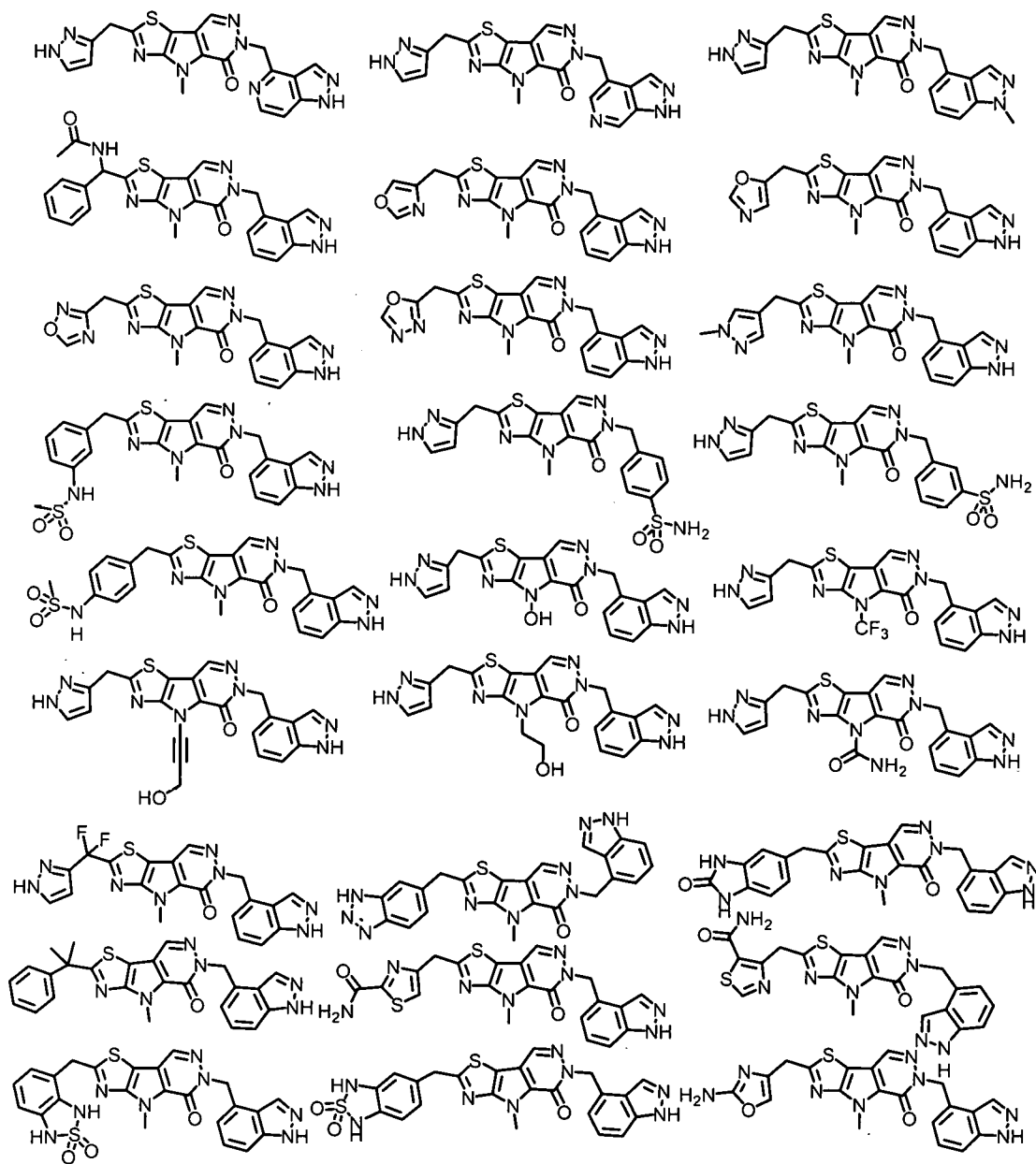


FIGURE 1B

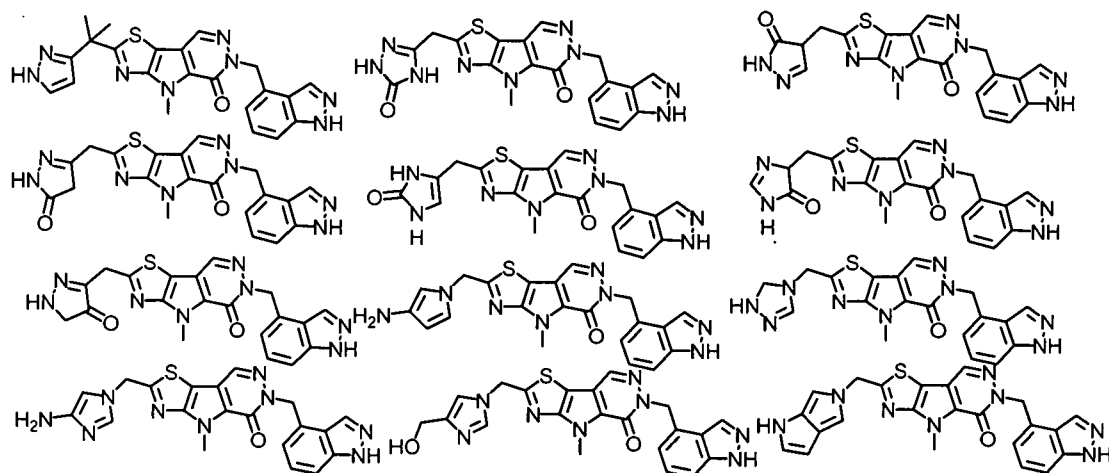


FIGURE 1C

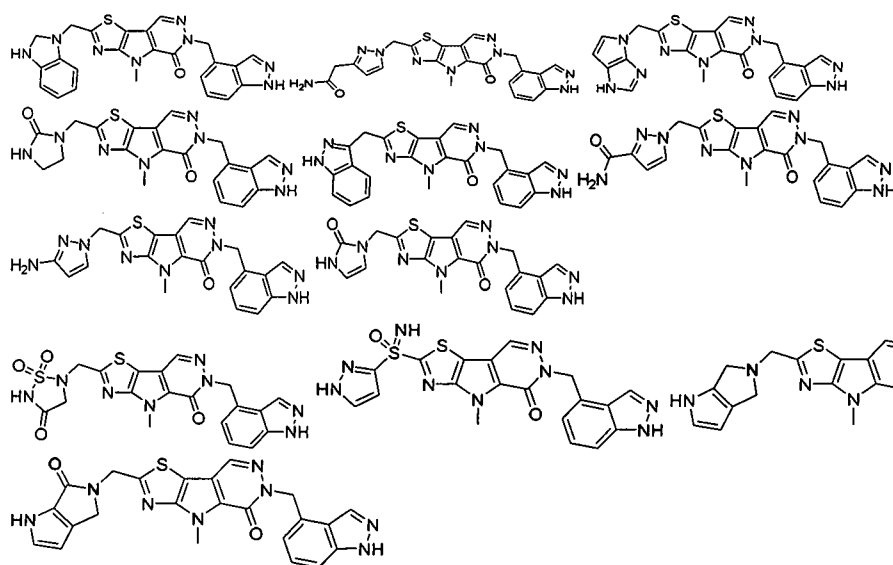


FIGURE 2A

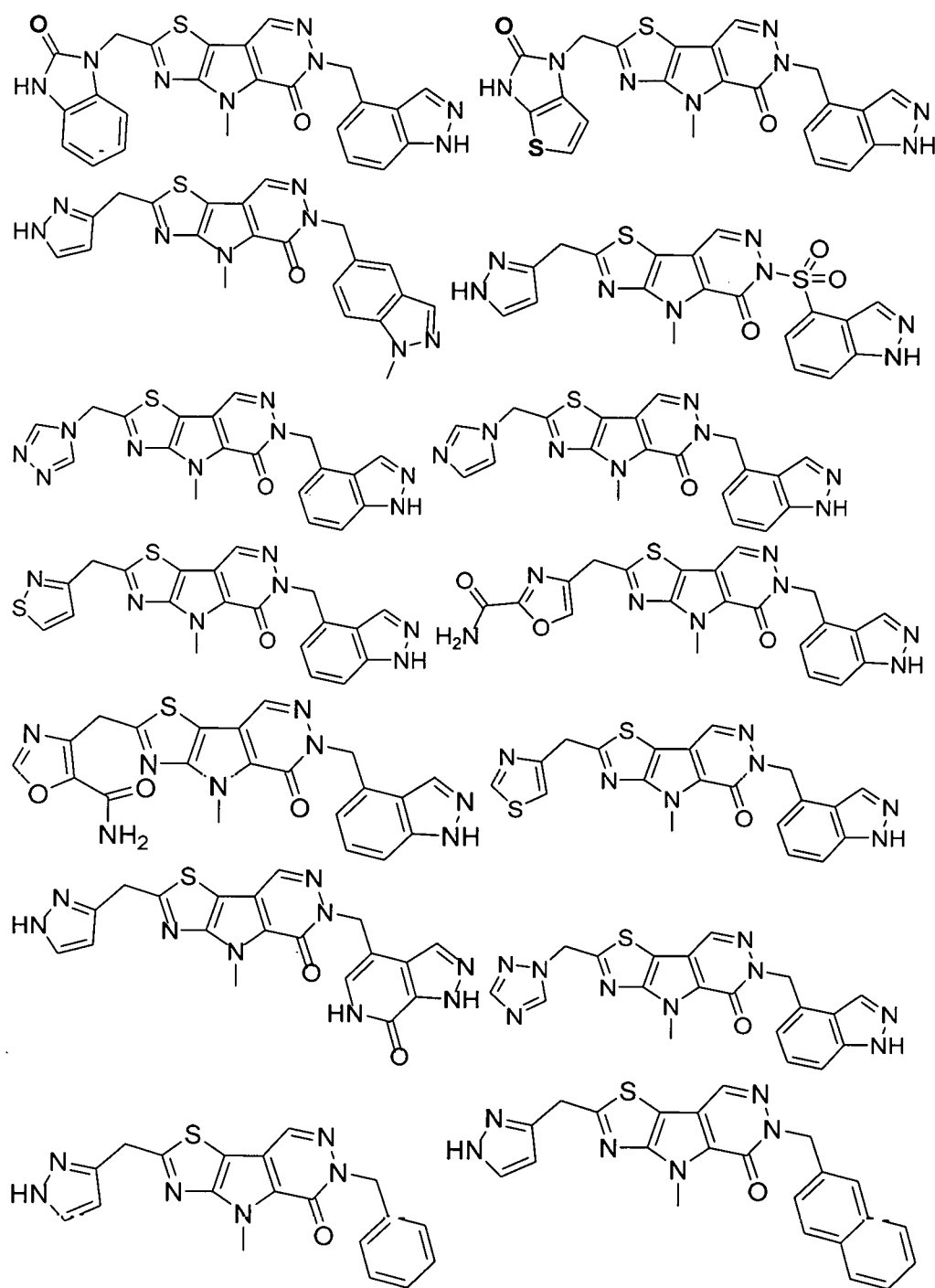


FIGURE 2B

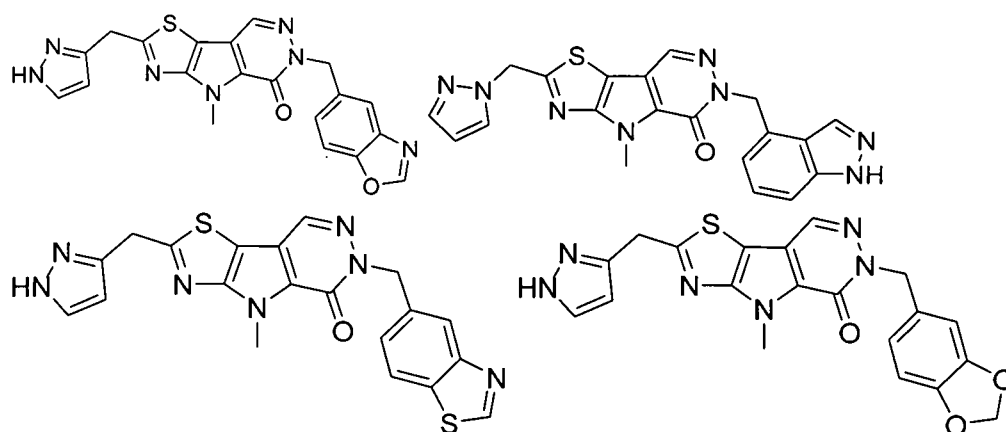


FIGURE 2C

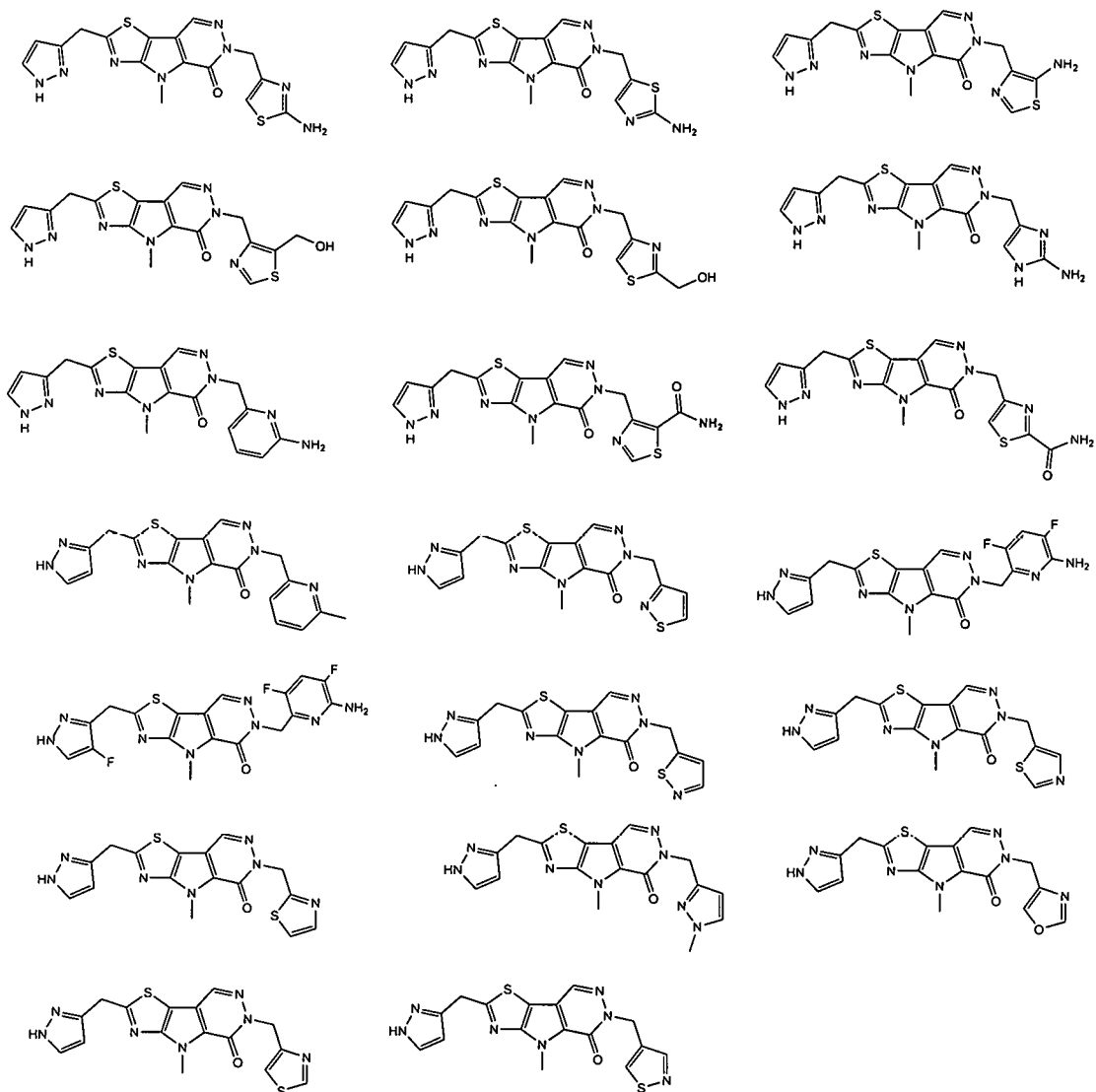


FIGURE 3

FIGURE 4

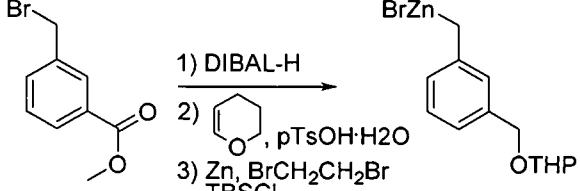
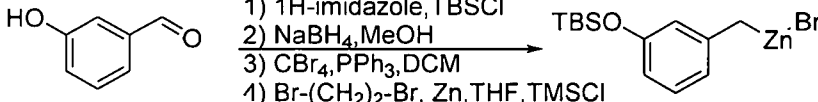
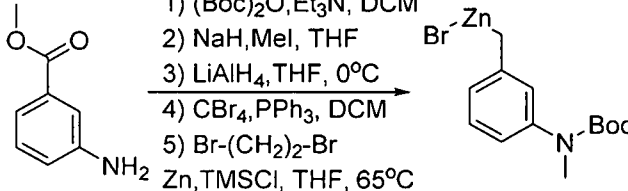
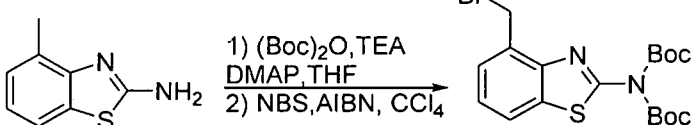
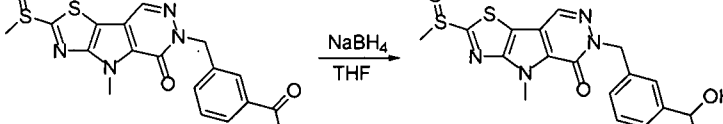
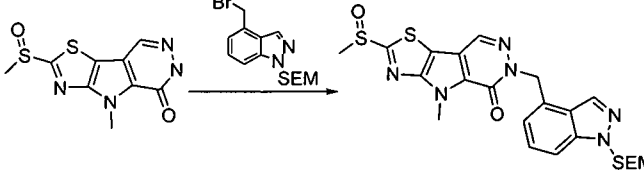
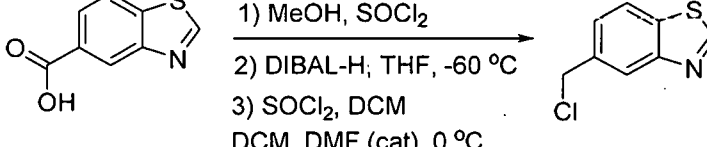
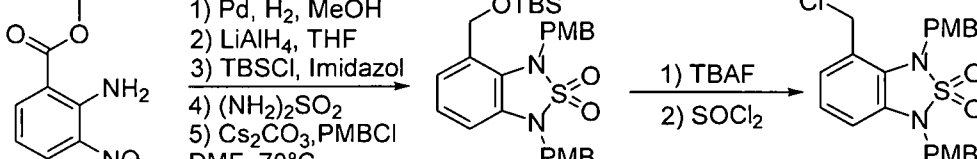
Cpds in Examples	Synthesis of the intermediates
E2-14	 1) DIBAL-H 2) , pTsOH·H₂O 3) Zn, BrCH₂CH₂Br, TBSCl
E2-19	 1) 1H-imidazole, TBSCl 2) NaBH₄, MeOH 3) CBr₄, PPh₃, DCM 4) Br-(CH₂)₂-Br, Zn, THF, TMSCl
E2-21	 1) (Boc)₂O, Et₃N, DCM 2) NaH, MeI, THF 3) LiAlH₄, THF, 0°C 4) CBr₄, PPh₃, DCM 5) Br-(CH₂)₂-Br, Zn, TMSCl, THF, 65°C
E4-7	 1) (Boc)₂O, TEA, DMAP, THF 2) NBS, AIBN, CCl₄
E4-15	 NaBH₄, THF
E4-16	 Br, SEM
E7-6	 1) MeOH, SOCl₂ 2) DIBAL-H, THF, -60 °C 3) SOCl₂, DCM, DMF (cat), 0 °C
E7-7	 1) Pd, H₂, MeOH 2) LiAlH₄, THF 3) TBSCl, Imidazole 4) (NH₂)₂SO₂ 5) Cs₂CO₃, PMBCl, DMF, 70°C 1) TBAF 2) SOCl₂

FIGURE 4 - Continued

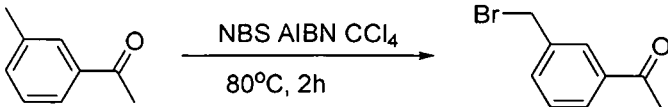
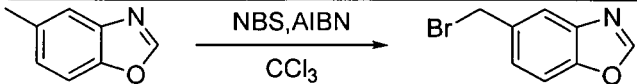
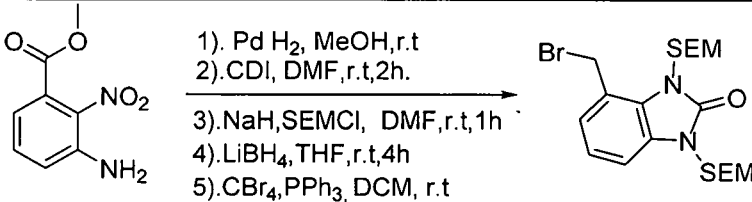
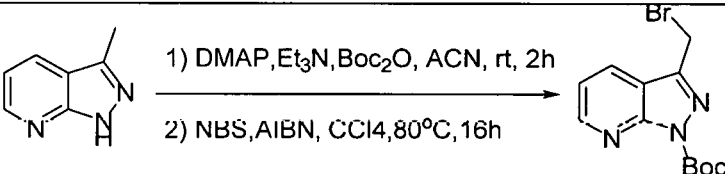
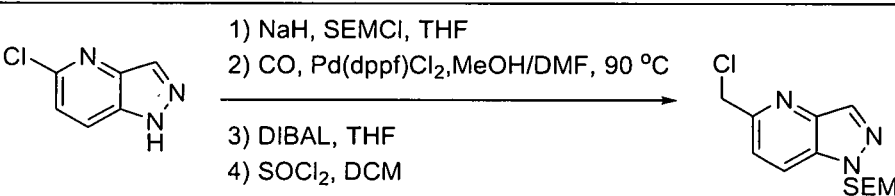
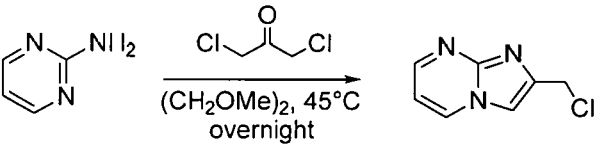
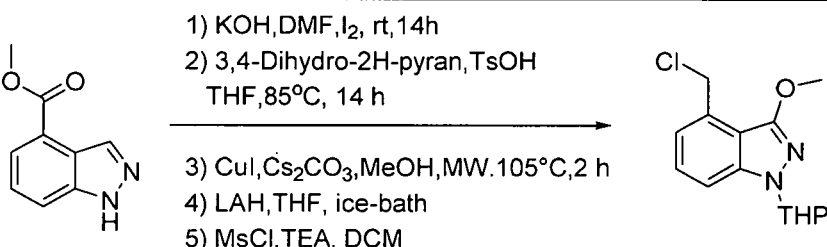
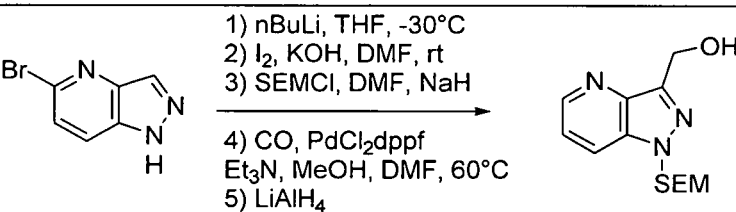
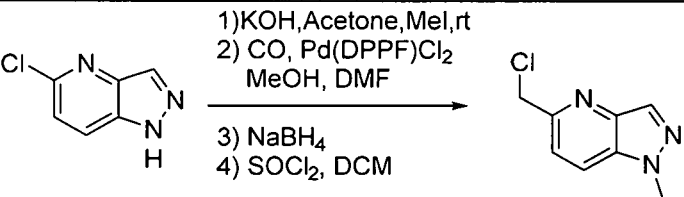
E7-10	
E7-12	
E7-14	
E7-15	
E7-17	
E7-18	
E7-20	
E7-22	
E7-23	

FIGURE 4 - Continued

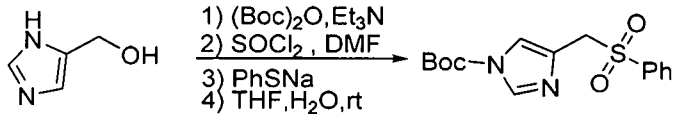
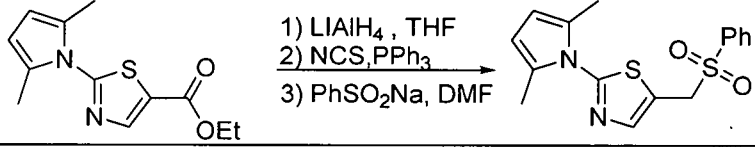
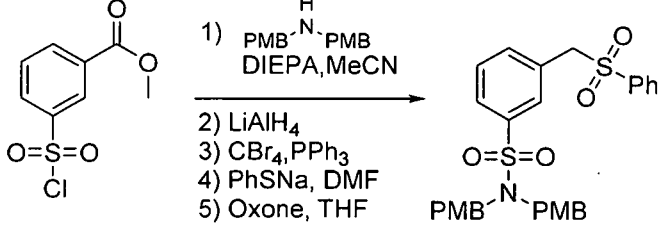
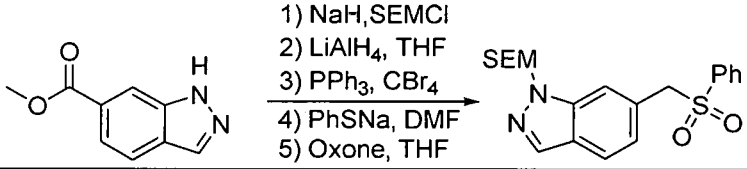
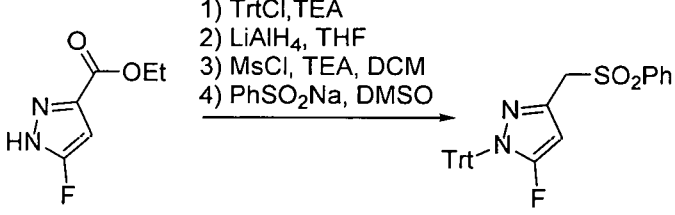
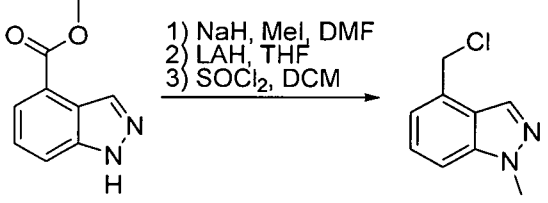
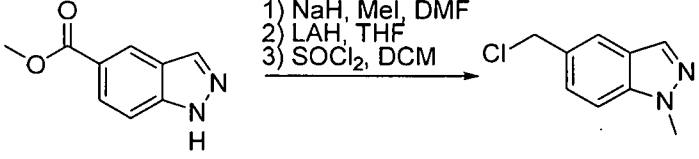
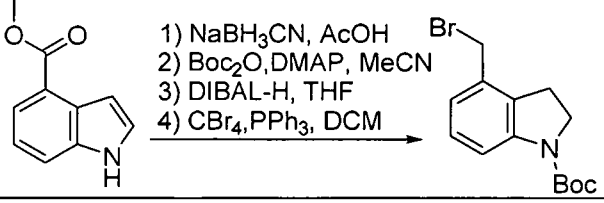
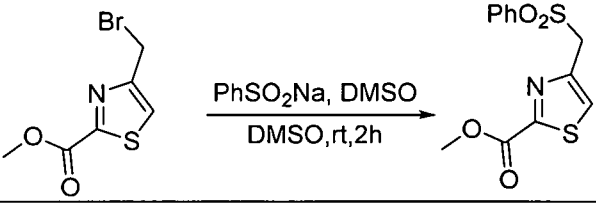
E8-13 E8-14	
E8-15	
E8-17	
E8-18	
E8-20	
E8-21	
E8-22	
E8-24	
E8-26	

FIGURE 4 - Continued

E8-27	
E8-31	
E8-34	
E8-35	
E8-38	
E9-9	
E9-14 E9-28	
E7-39	

11/14

FIGURE 4 - Continued

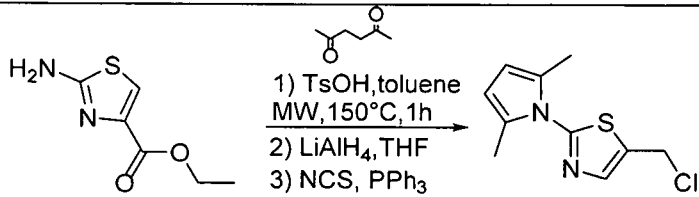
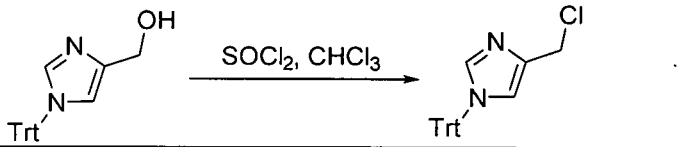
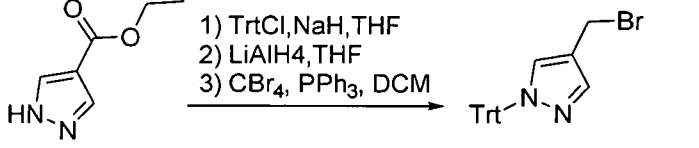
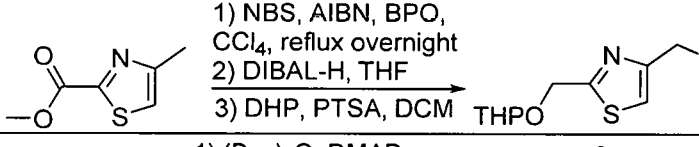
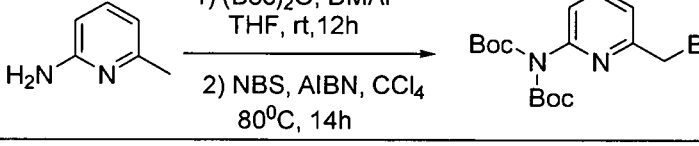
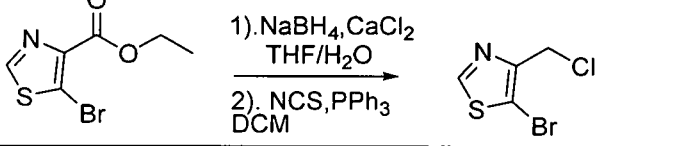
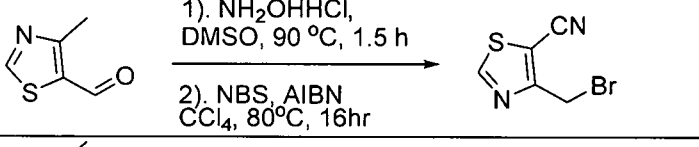
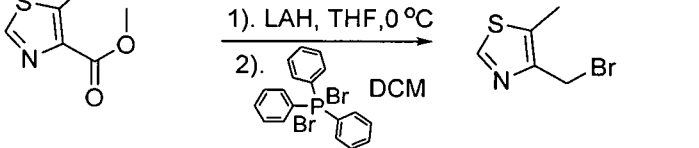
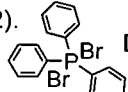
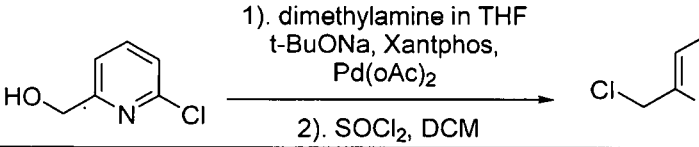
E7-40	 1) TsOH, toluene MW, 150°C, 1h 2) LiAlH₄, THF 3) NCS, PPh₃
E7-41	 SOCl₂, CHCl₃
E7-42	 1) TrtCl, NaH, THF 2) LiAlH₄, THF 3) CBr₄, PPh₃, DCM
E7-44	 1) NBS, AIBN, BPO, CCl₄, reflux overnight 2) DIBAL-H, THF 3) DHP, PTSA, DCM
E7-47	 1) (Boc)₂O, DMAP THF, rt, 12h 2) NBS, AIBN, CCl₄ 80°C, 14h
E7-49	 1). NaBH₄, CaCl₂ THF/H₂O 2). NCS, PPh₃ DCM
E7-51	 1). NH₂OHHCl, DMSO, 90 °C, 1.5 h 2). NBS, AIBN CCl₄, 80°C, 16hr
E7-53	 1). LAH, THF, 0 °C 2).  DCM
E7-54	 1). dimethylamine in THF t-BuONa, Xantphos, Pd(oAc)₂ 2). SOCl₂, DCM

FIGURE 4 - Continued

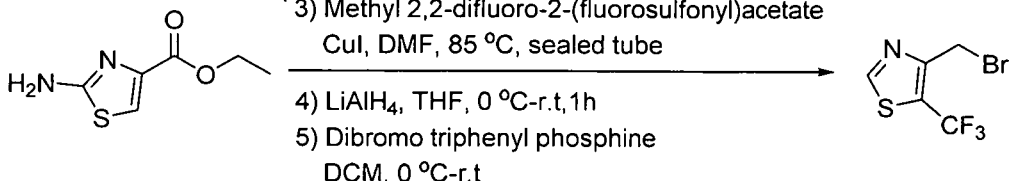
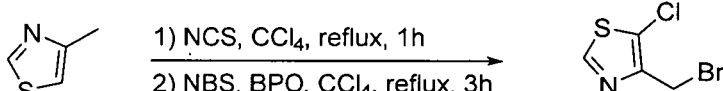
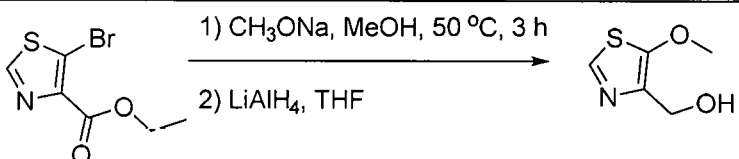
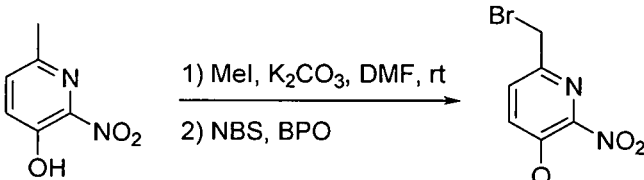
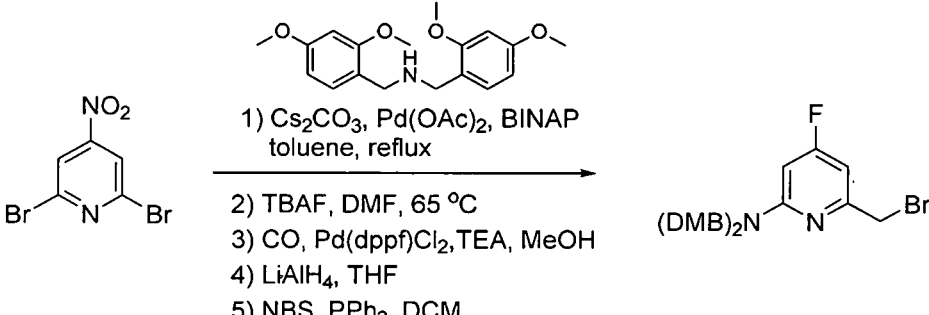
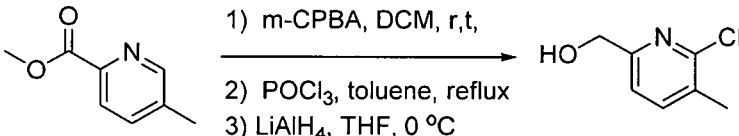
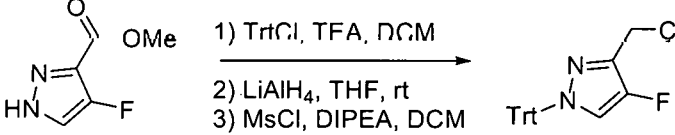
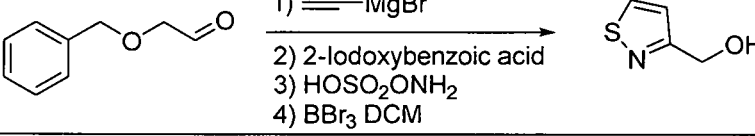
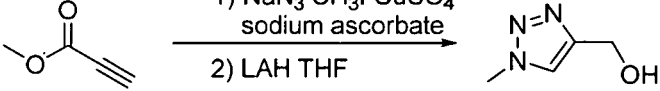
E7-55	 1) NIS, DCM r.t., 24 h 2) <i>t</i>-BuNO₂, THF, 50 °C-r.t., 2h 3) Methyl 2,2-difluoro-2-(fluorosulfonyl)acetate Cul, DMF, 85 °C, sealed tube 4) LiAlH₄, THF, 0 °C-r.t., 1h 5) Dibromo triphenyl phosphine DCM, 0 °C-r.t.
E7-56	 1) NCS, CCl₄, reflux, 1h 2) NBS, BPO, CCl₄, reflux, 3h
E7-57	 1) CH₃ONa, MeOH, 50 °C, 3 h 2) LiAlH₄, THF
E7-59	 1) MeI, K₂CO₃, DMF, rt 2) NBS, BPO
E7-60	 1) Cs₂CO₃, Pd(OAc)₂, BINAP toluene, reflux 2) TBAF, DMF, 65 °C 3) CO, Pd(dppf)Cl₂, TEA, MeOH 4) LiAlH₄, THF 5) NBS, PPh₃, DCM
E7-61	 1) <i>m</i>-CPBA, DCM, r.t., 2) POCl₃, toluene, reflux 3) LiAlH₄, THF, 0 °C
E7-62	 1) TrtCl, TFA, DCM 2) LiAlH₄, THF, rt 3) MsCl, DIPEA, DCM
E7-73	 1) $\equiv$-MgBr 2) 2-iodoxybenzoic acid 3) HOSO₂ONH₂ 4) BBr₃, DCM
E7-75	 1) NaN₃, CH₃I, CuSO₄ sodium ascorbate 2) LAH, THF

FIGURE 4 - Continued

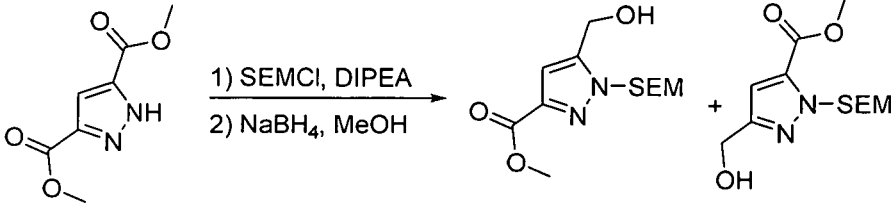
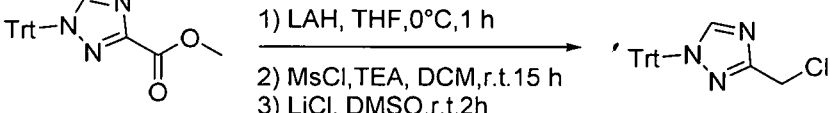
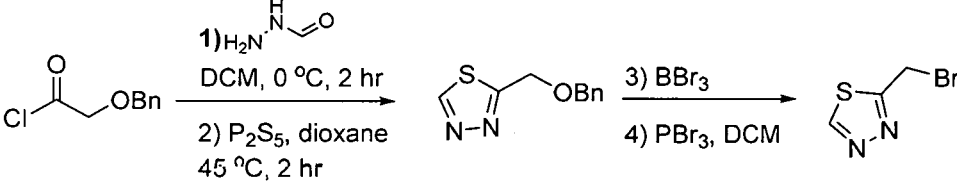
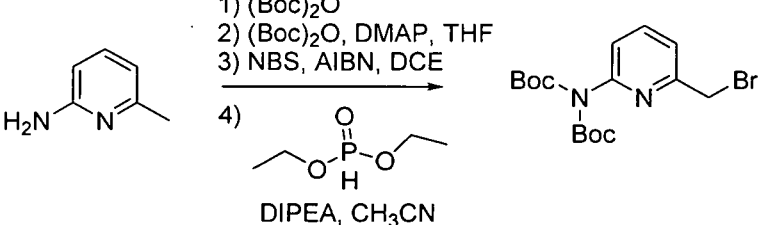
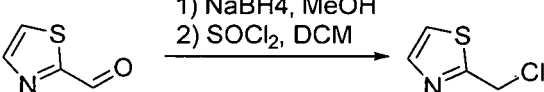
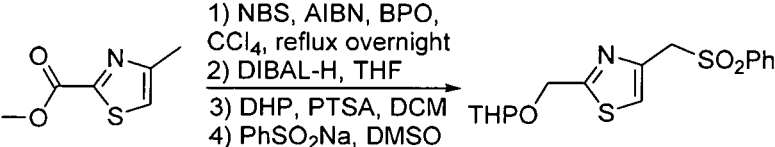
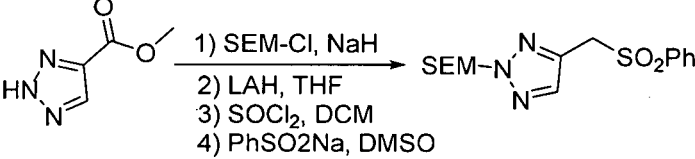
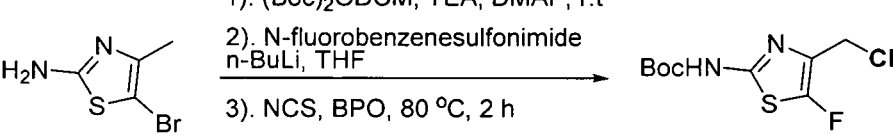
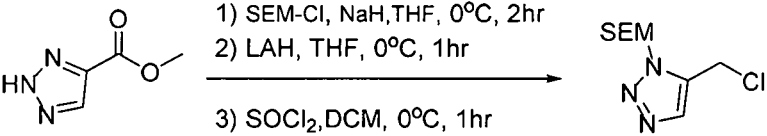
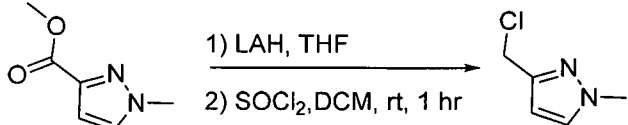
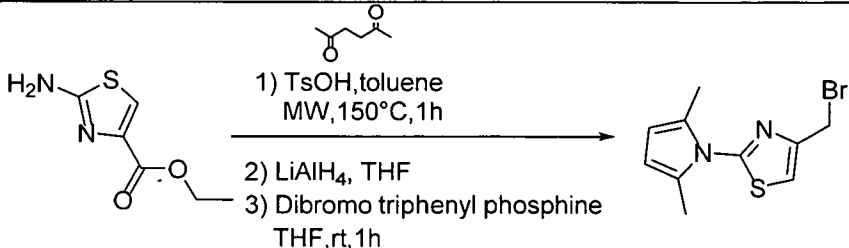
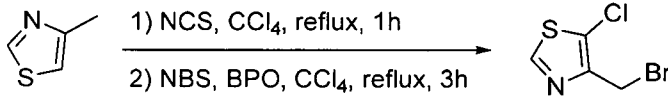
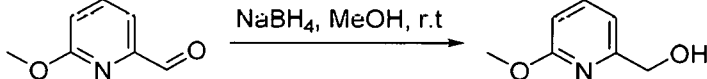
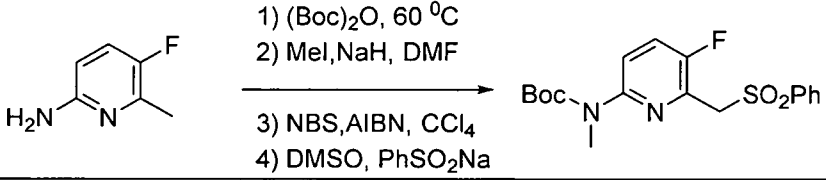
E7-78	
E7-87	
E7-88	
E8-16	
E8-70	
E8-77	
E8-82	
E8-86, E8-87, E8-96, E8-97	
E8-86, E8-87, E8-91, E8-99	

FIGURE 4 - Continued

E8-89	
E8-90	
E8-91 E8-92	
E8-95	
E8-111	
E8-112	