

5-Sulfo anthranilic acid dithiocarbamate functionalized silver nanoparticles as colorimetric probe for simple and selective detection of tricyclazole fungicide in rice samples

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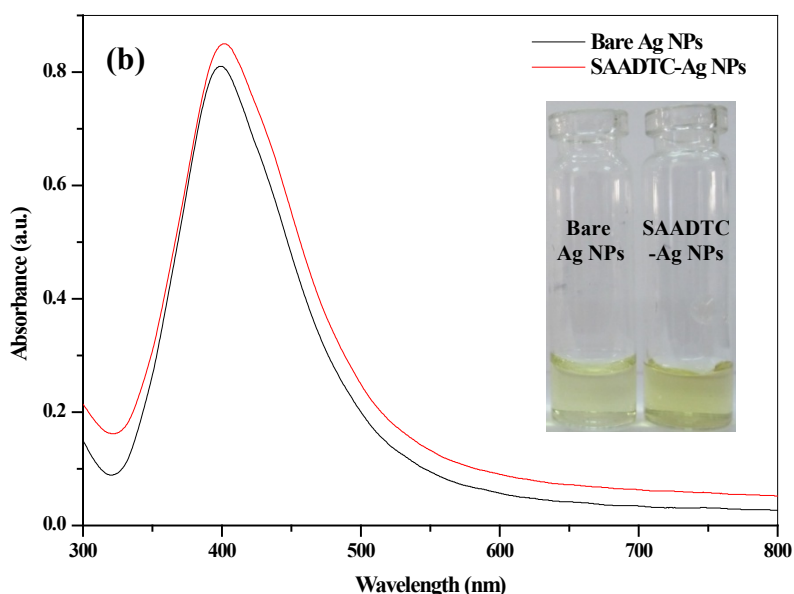
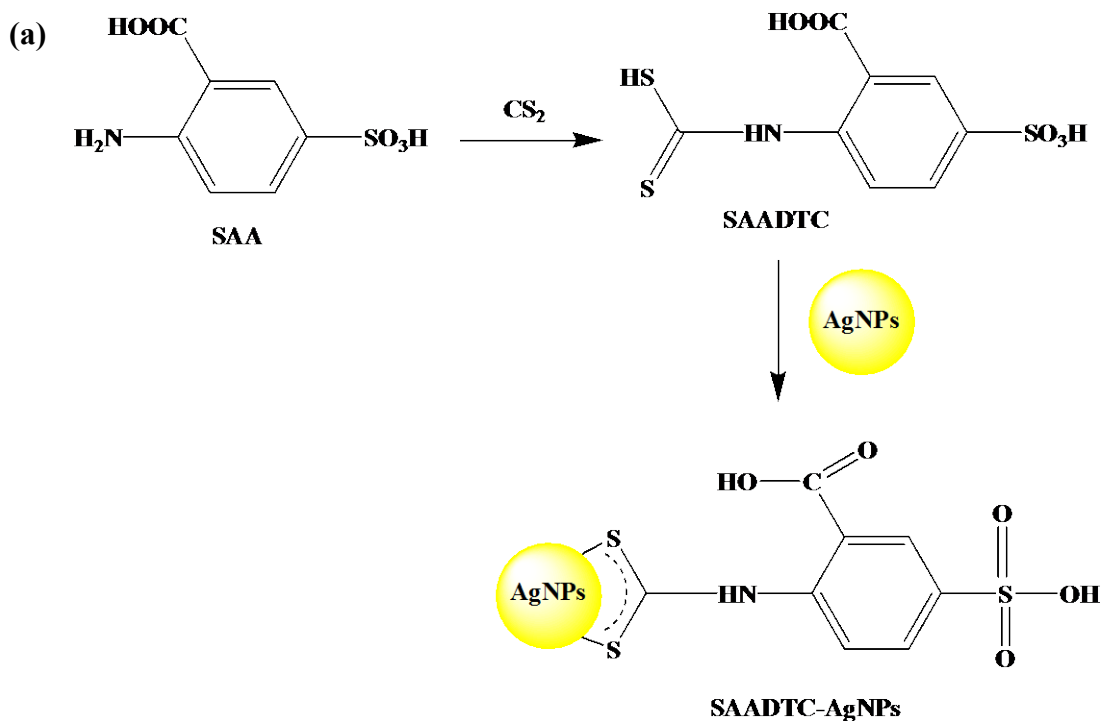


Figure S1. (a) Schematic representation for preparation of SAADTC-Ag NPs and (b) UV-visible absorbance spectra of bare Ag NPs and SAADTC-Ag NPs. Inset: photograph of bare Ag NPs and SAADTC-Ag NPs.

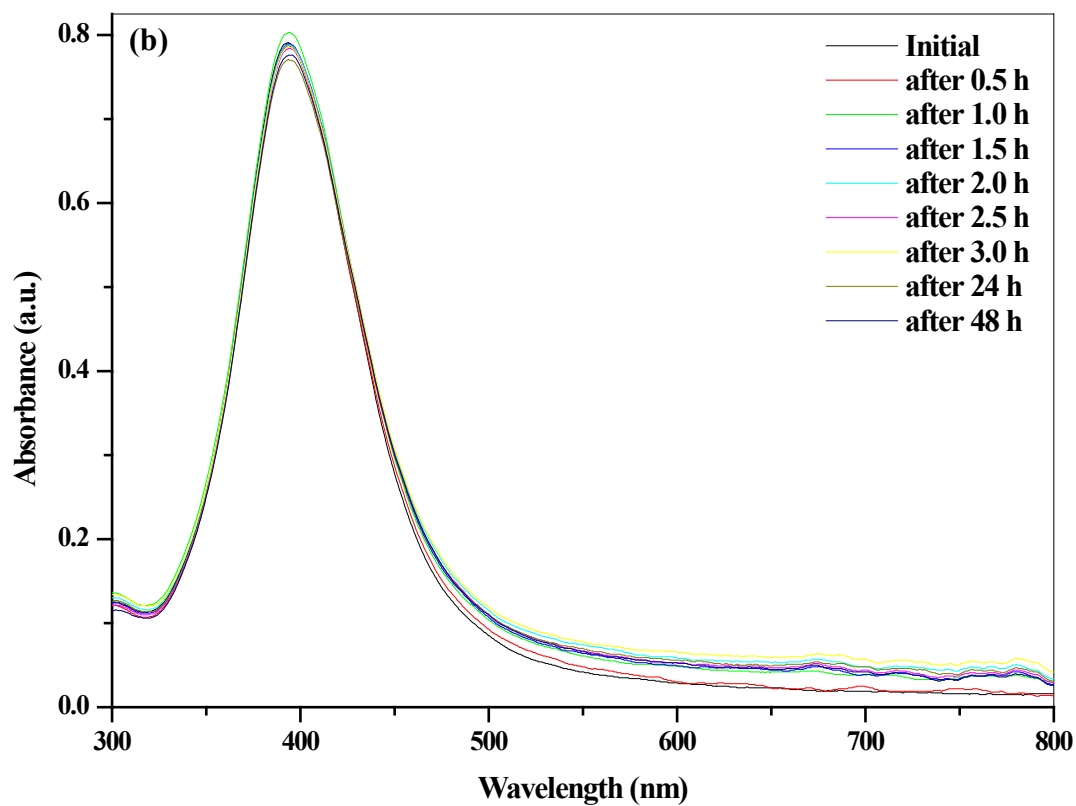
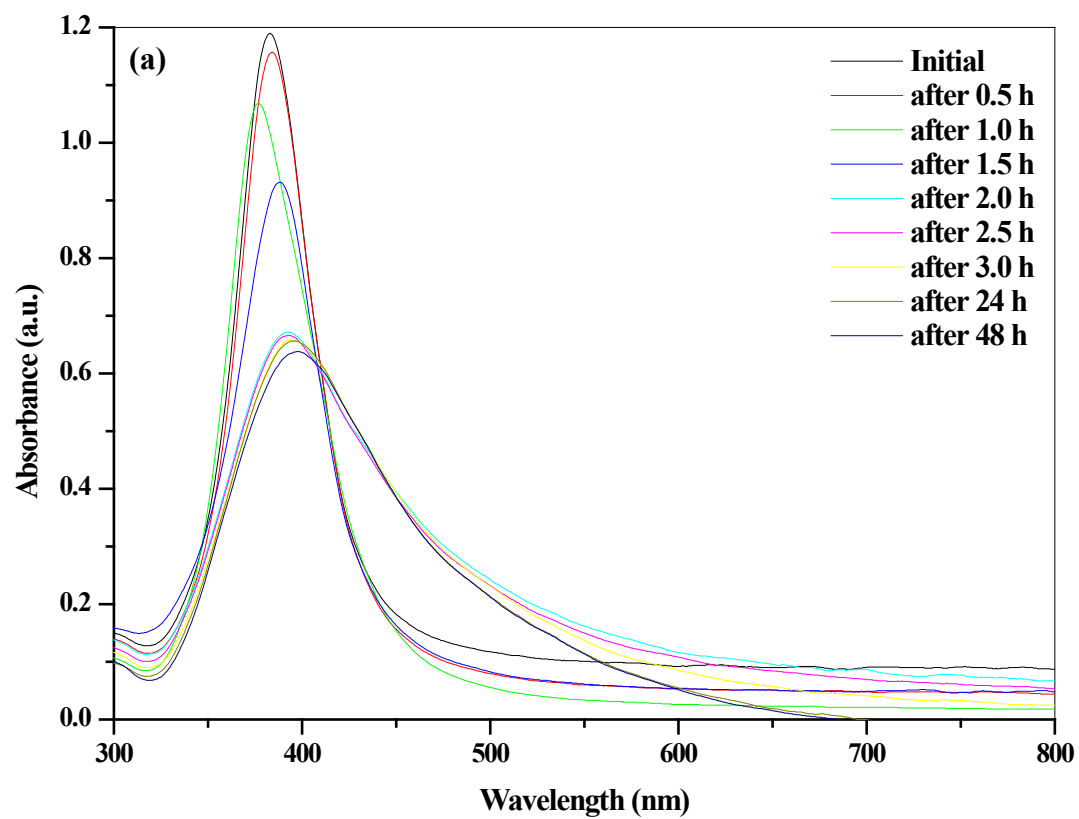


Figure S2. UV-visible absorbance spectra of (a) bare Ag NPs and (b) SAADTC-Ag NPs at different time intervals.

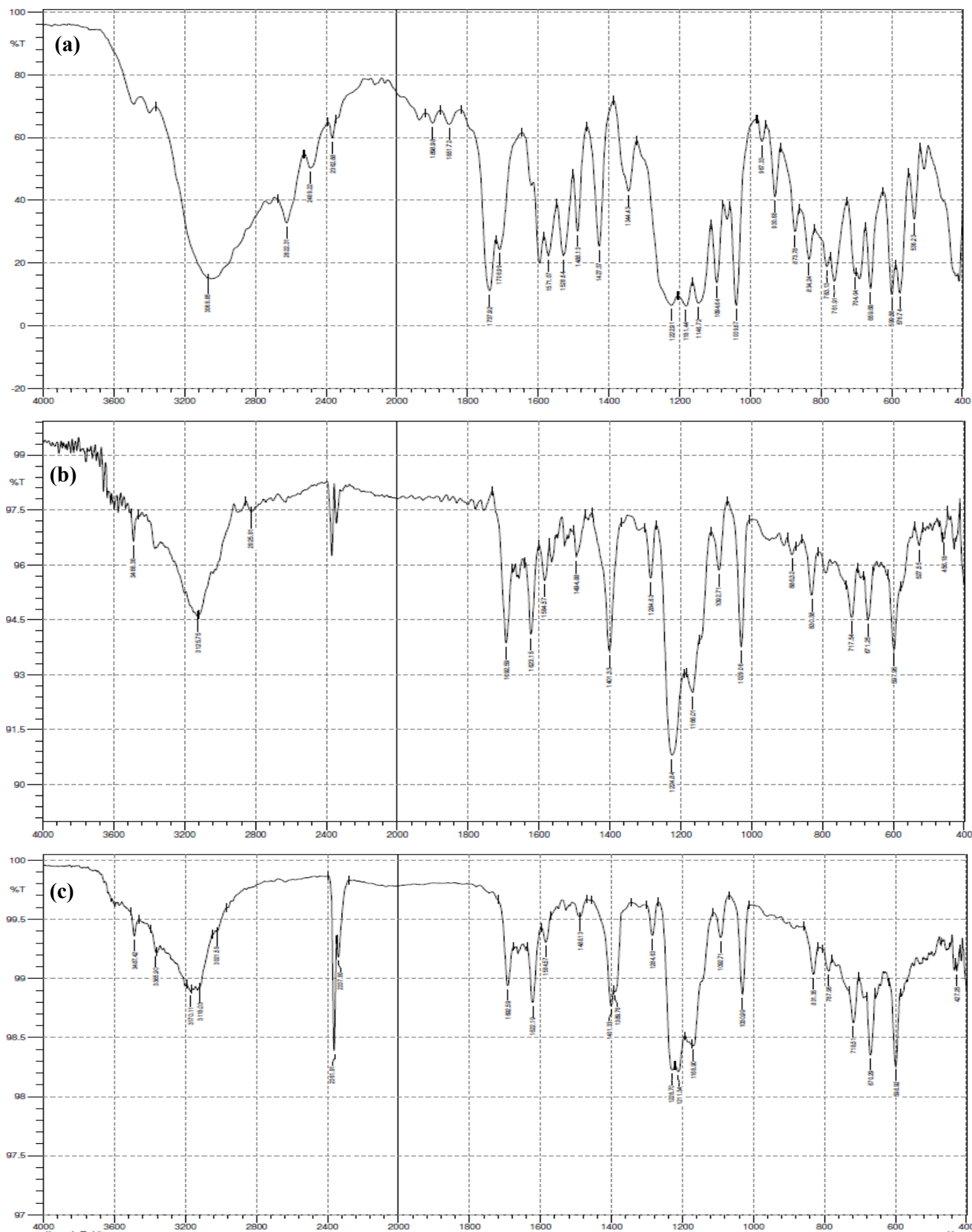
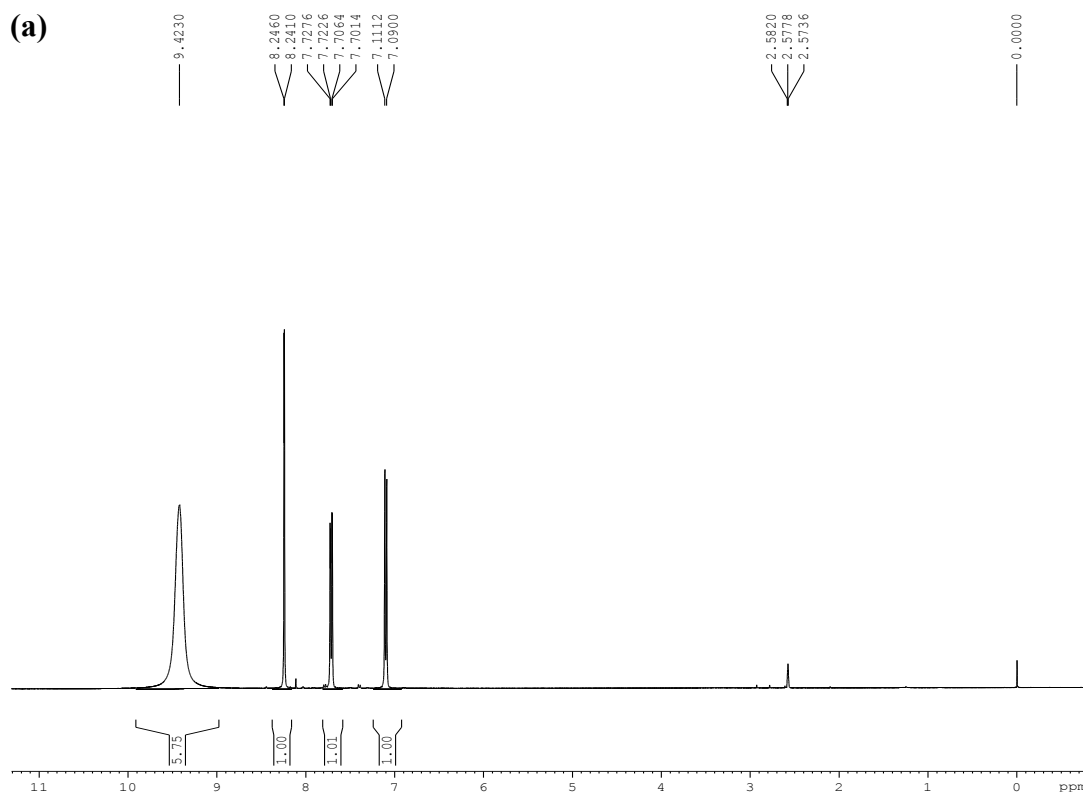


Figure S3. FT-IR spectra of (a) SAA, (b) SAADTC and (c) SAADTC-Ag NPs

JS-1

(a)



BRUKER
 AVANCE II 400 NMR
 Spectrometer
 SAIF
 Panjab University
 Chandigarh

Current Data Parameters
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 PROCNO 1

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 SOLVENT DMSO
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 DS 2
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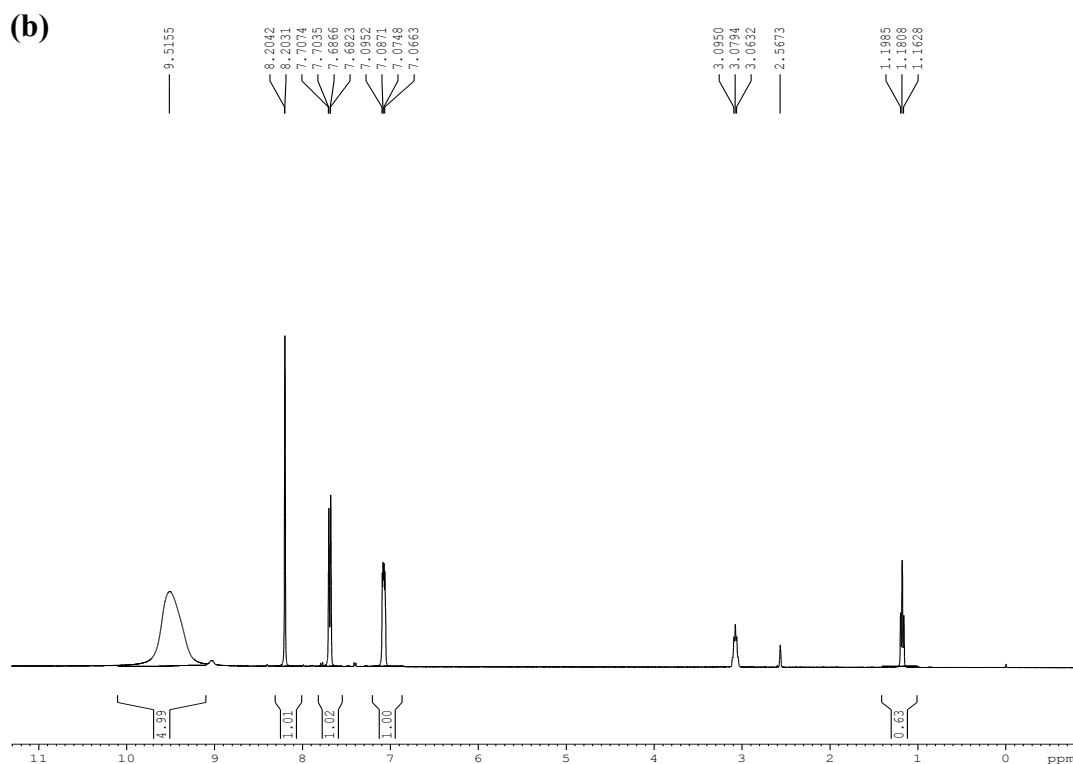
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 PC 1.00

avtar_saifpu@yahoo.co.in

JS-2

(b)



BRUKER
 AVANCE II 400 NMR
 Spectrometer
 SAIF
 Panjab University
 Chandigarh

Current Data Parameters
 NAME Mar22-2013
 EXPNO 280
 PROCNO 1

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 TE 295.8 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
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F2 - Processing parameters
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 PC 1.00

avtar_saifpu@yahoo.co.in

Figure S4. ^1H NMR spectra of (a) SAA and (b) SAADTC

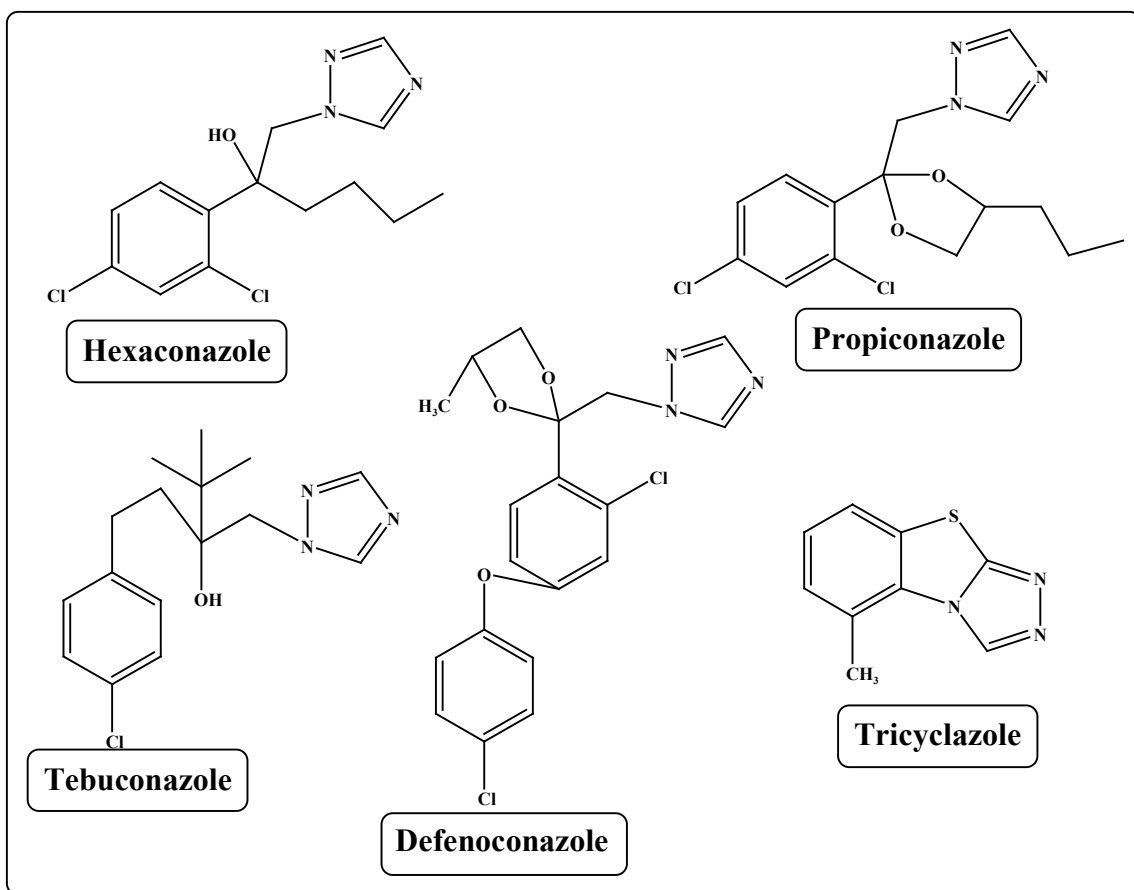


Figure S5. Structure of pesticides (hexaconazole, propiconazole, tebuconazole, defenoconazole and tricyclazole) which are used for selectivity study using SAADTC- Ag NPs as colorimetric probe.

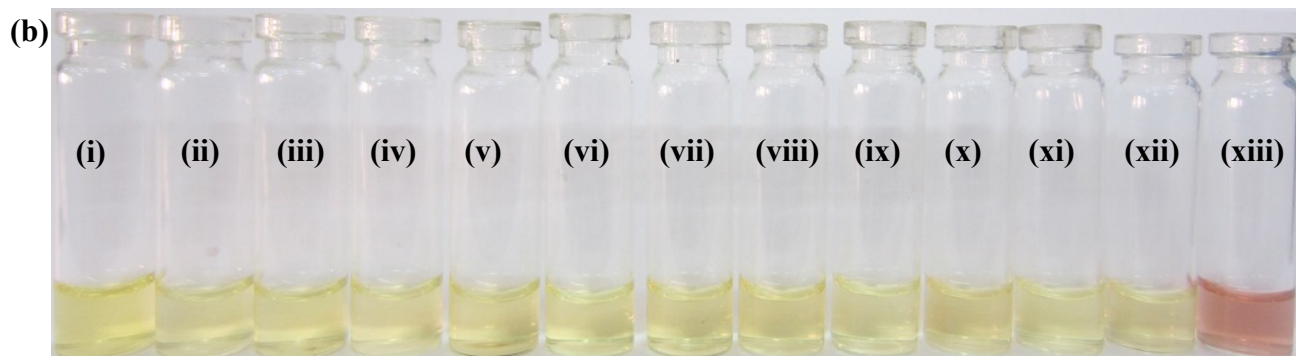
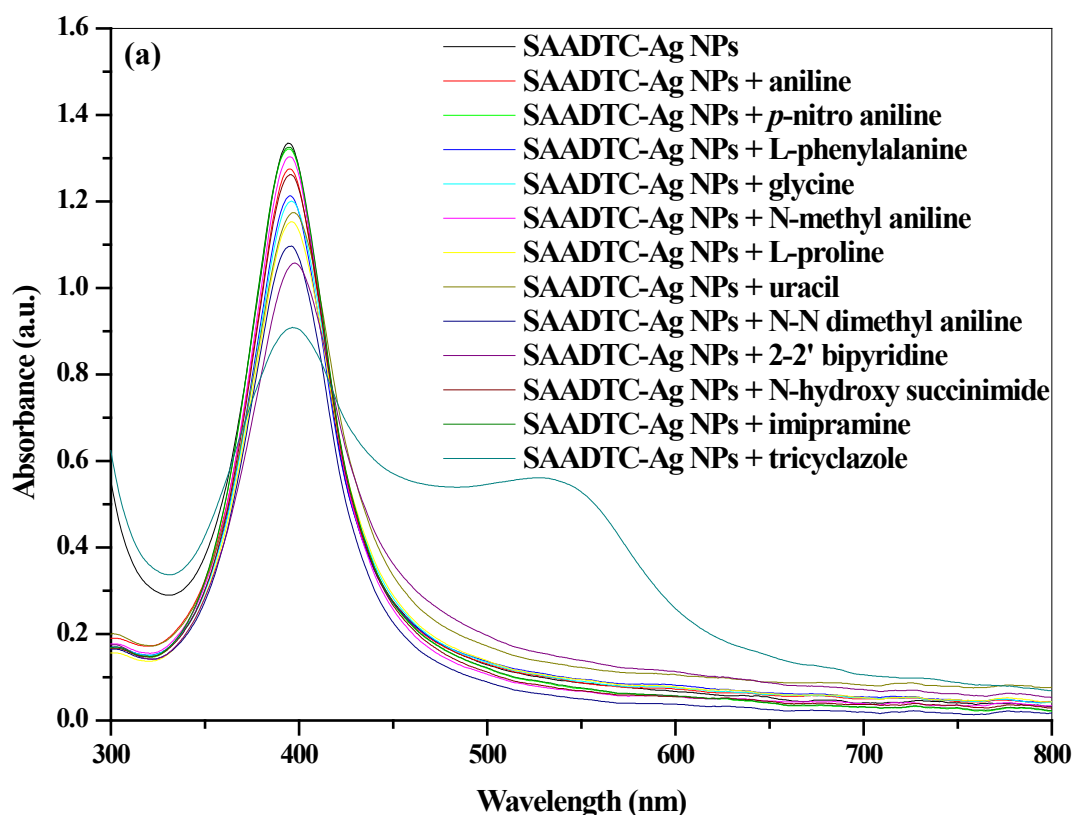


Figure S6. (a) UV-visible absorbance spectra and (b) photograph of (i) SAADTC-Ag NPs, SAADTC-Ag NPs with (ii) aniline, (iii) *p*-nitro aniline, (iv) L-phenylalanine, (v) glycine, (vi) N-methyl aniline, (vii) L-proline, (viii) uracil, (ix) N-N dimethyl aniline, (x) 2-2' bipyridine, (xi) N-hydroxy succinimide, (xii) imipramine and (xiii) tricyclazole (100 μ M)

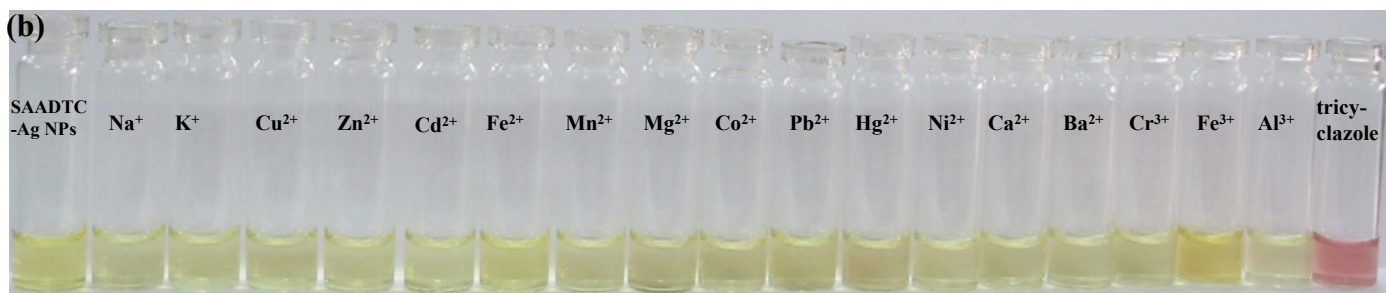
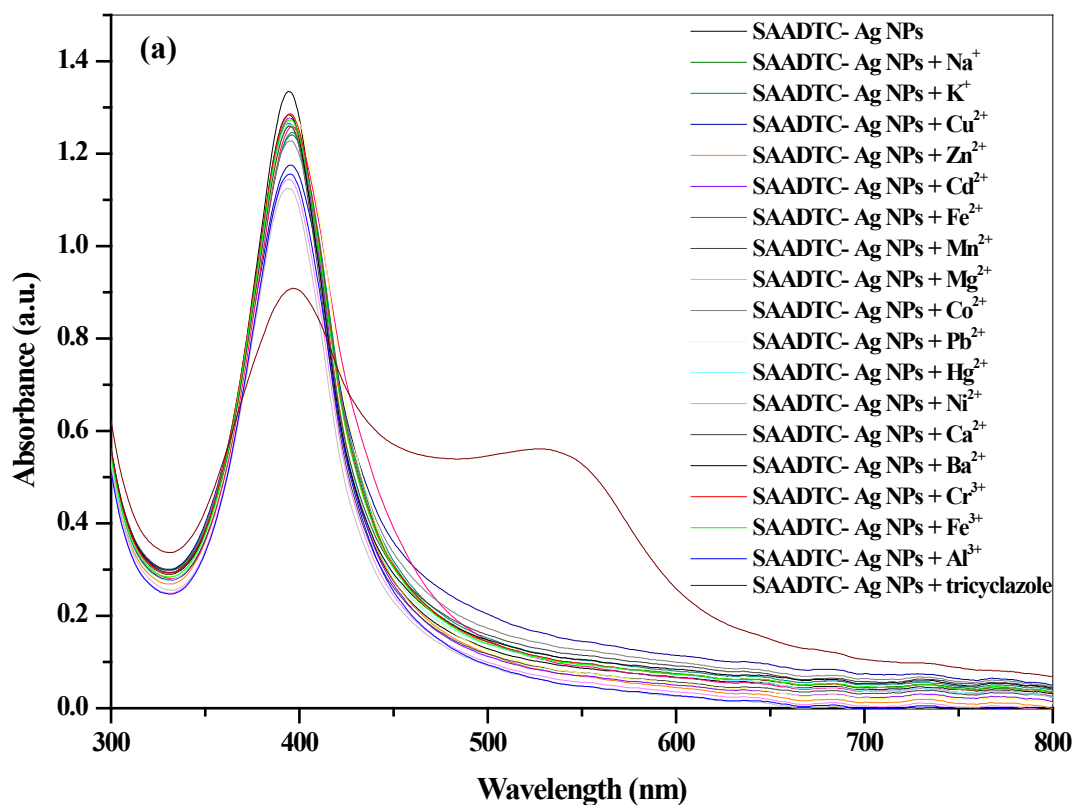


Figure S7. (a) UV-visible absorbance spectra and (b) photograph of SAADTC-Ag NPs, SAADTC-Ag NPs with various metal ions (Na^+ , K^+ , Cu^{2+} , Zn^{2+} , Cd^{2+} , Fe^{2+} , Mn^{2+} , Mg^{2+} , Co^{2+} , Pb^{2+} , Hg^{2+} , Ni^{2+} , Ca^{2+} , Ba^{2+} , Cr^{3+} , Fe^{3+} , Al^{3+} ; 100 μM) and tricyclazole (100 μM)

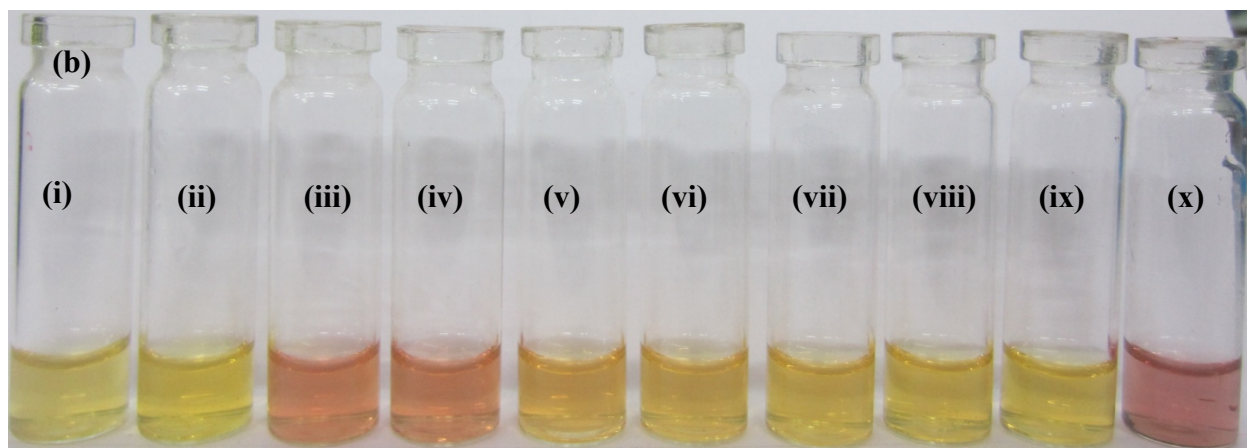
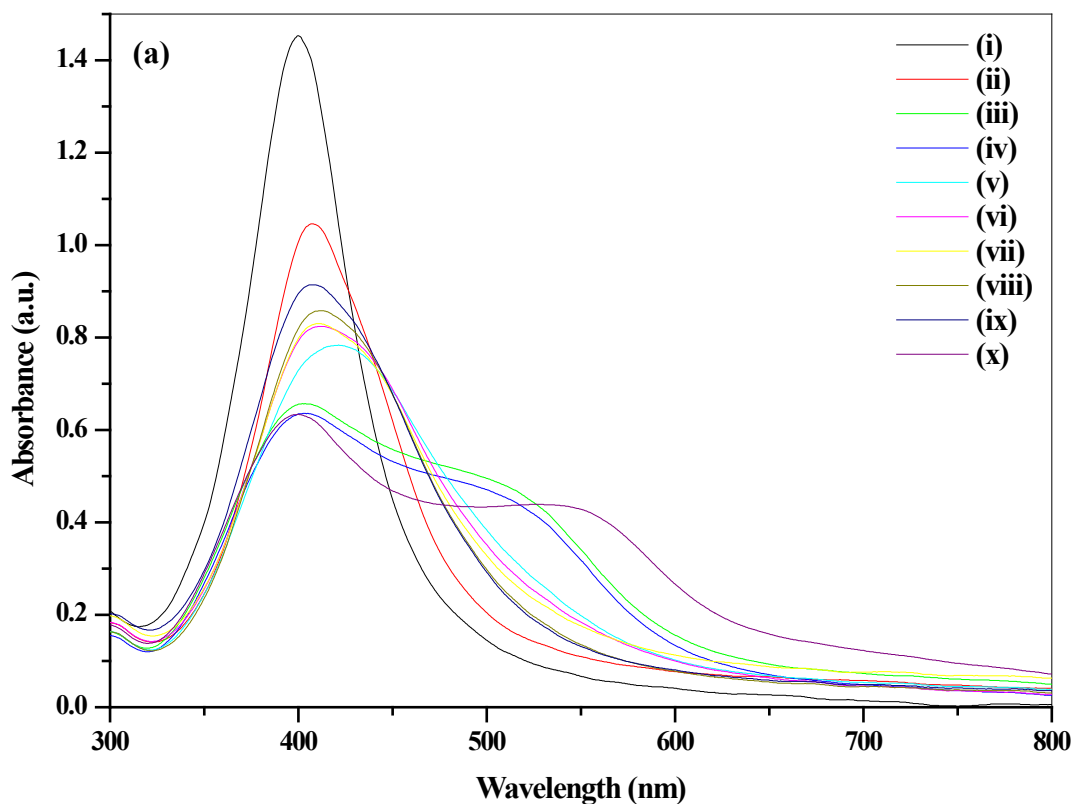


Figure S8. (a) UV-visible absorbance spectra and (b) photograph of (i) SAADTC-Ag NPs (ii) SAADTC-Ag NPs in the presence of other interfering pesticides (hexaconazole, propiconazole, tebuconazole, defenoconazole, 1.2 mM) without tricyclazole, SAADTC-Ag NPs with tricyclazole in presence of other pesticides at (iii) 1:1 (100 μ M:100 μ M), (iv) 1:2 (100 μ M:200 μ M), (v) 1:4 (100 μ M:400 μ M), (vi) 1:6 (100 μ M:600 μ M), (vii) 1:8 (100 μ M:800 μ M), (viii) 1:10 (100 μ M:1000 μ M), (ix) 1:12 (100 μ M:1200 μ M), (x) SAADTC-Ag NPs with tricyclazole (100 μ M)