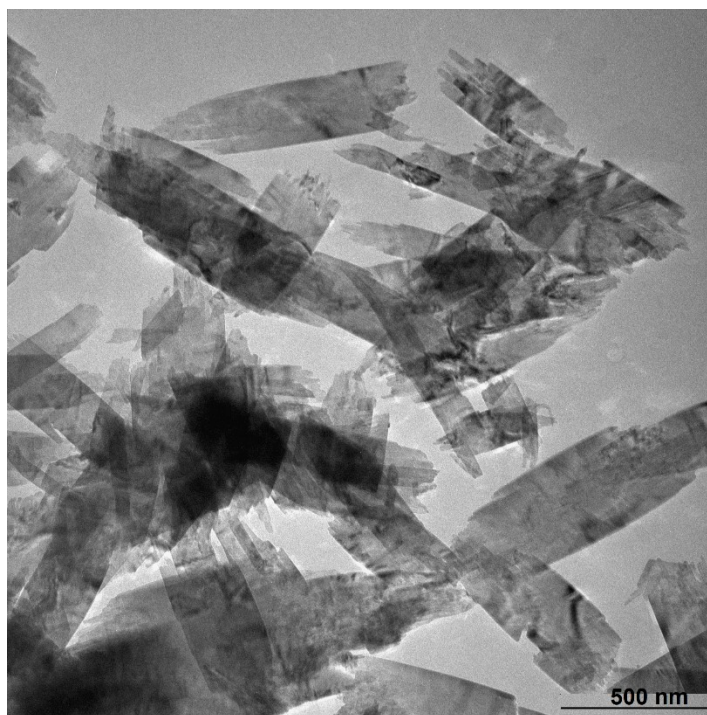


Supporting Information

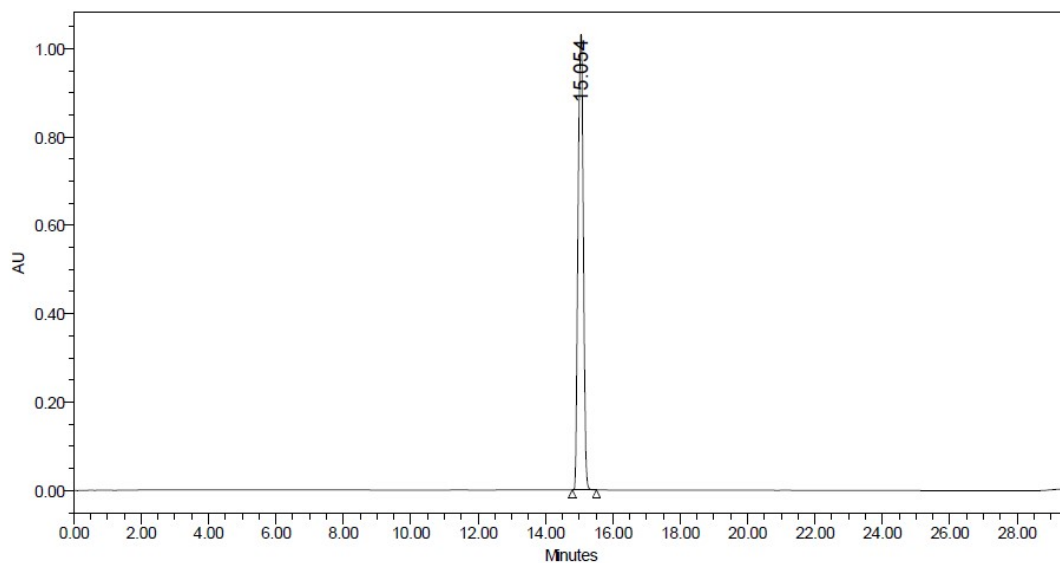
**Catalytic Reduction of Aromatic Nitro under Environmentally Friendly
aqueous media by using PVP-coated CuO Nanosheets**

Mahdi Shahmiri^{a*}, Saadi Bayat^b, Sharmin Kharrazi^a



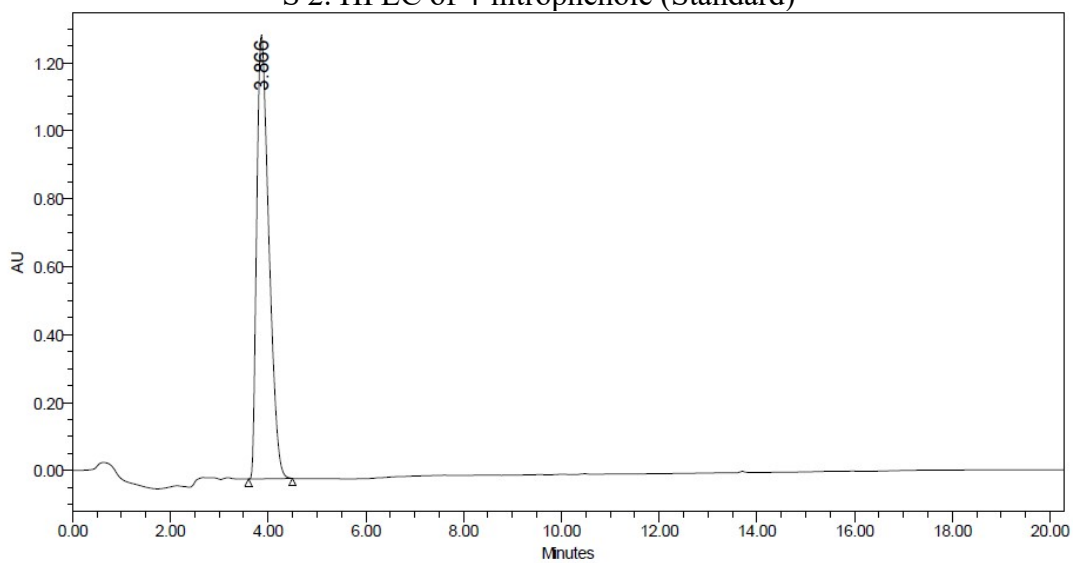
S 1. The TEM image of CuO sheet-like particles obtained at 1.5 wt% of PVP

The yield and progress of reduction reactions were determined by HPLC as shown in Figures S2-S22.



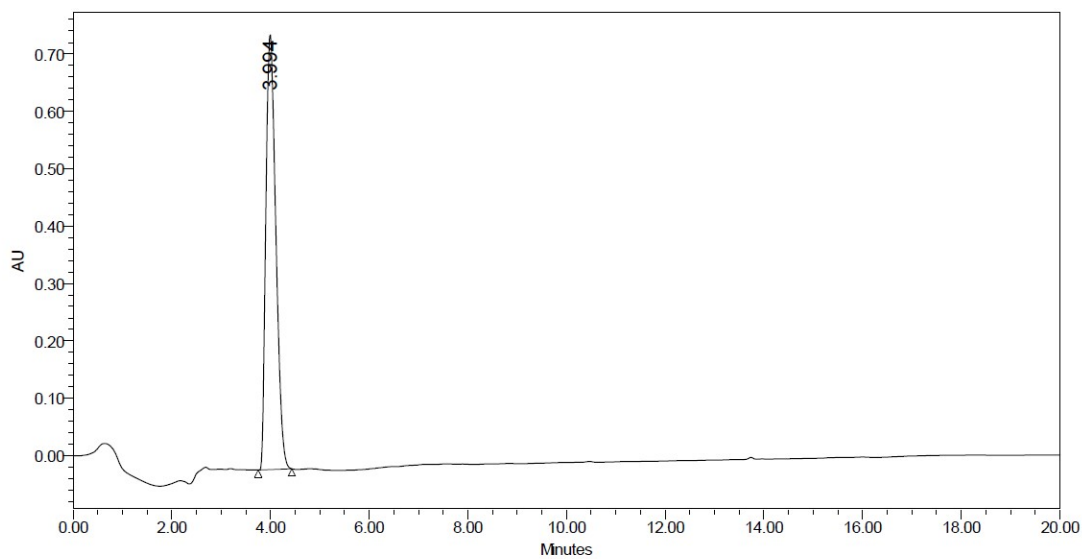
	RT (min)	Area ($\mu\text{V}^*\text{sec}$)	% Area	Height (μV)	% Height
1	15.054	11221550	100.00	1030919	100.00

S 2. HPLC of 4-nitrophenol (Standard)



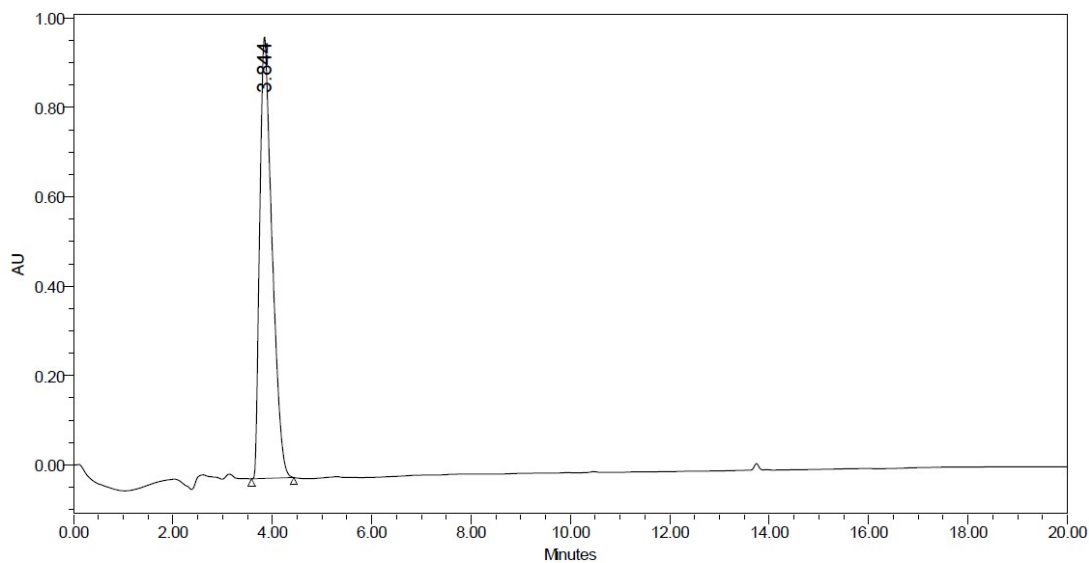
	RT (min)	Area ($\mu\text{V}^*\text{sec}$)	% Area	Height (μV)	% Height
1	3.866	22629423	100.00	1306606	100.00

S 3. HPLC of 4-aminophenol (Standard)



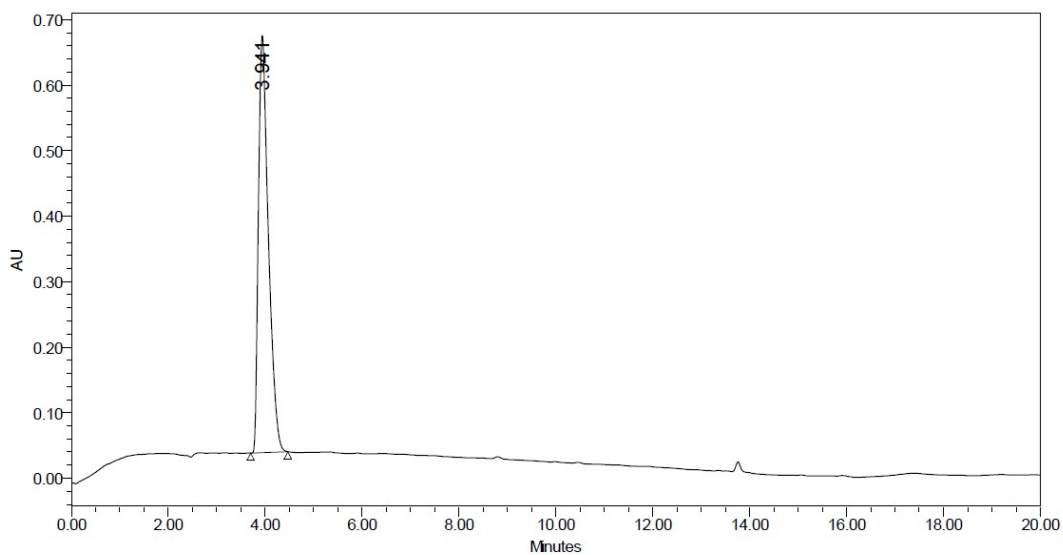
	RT (min)	Area ($\mu\text{V}^*\text{sec}$)	% Area	Height (μV)	% Height
1	3.994	10566061	100.00	758551	100.00

S 4. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 2)



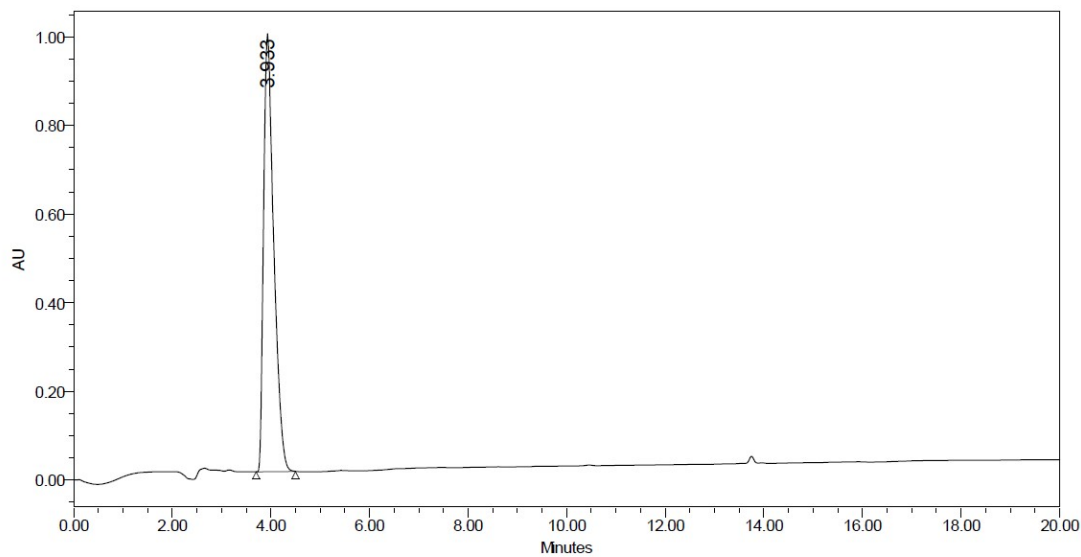
	RT (min)	Area ($\mu\text{V}^*\text{sec}$)	% Area	Height (μV)	% Height
1	3.844	16936782	100.00	988775	100.00

S 5. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 3)



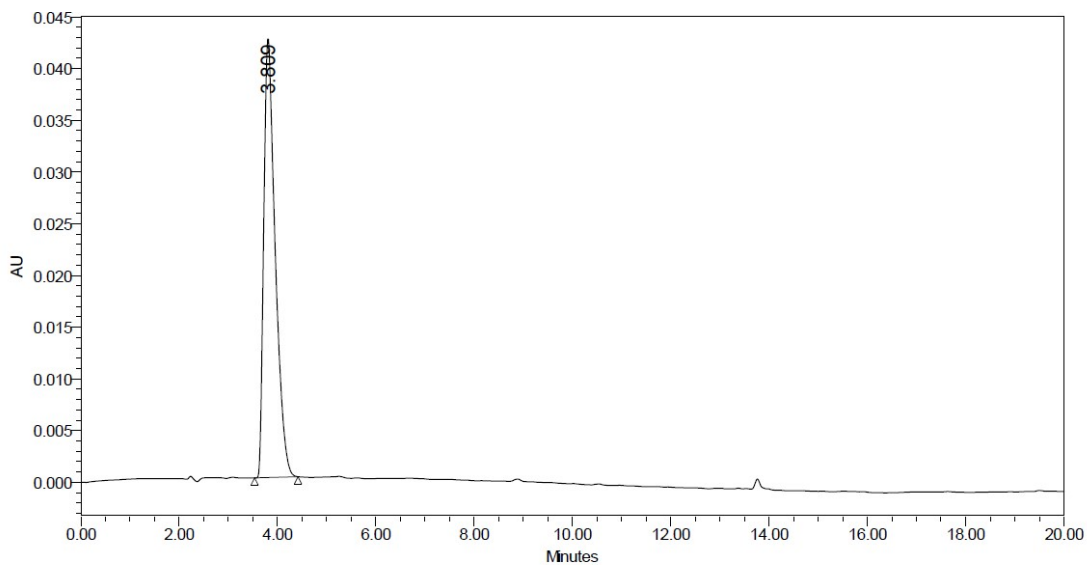
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.941	429648	100.00	30068	100.00

S 6. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 4)



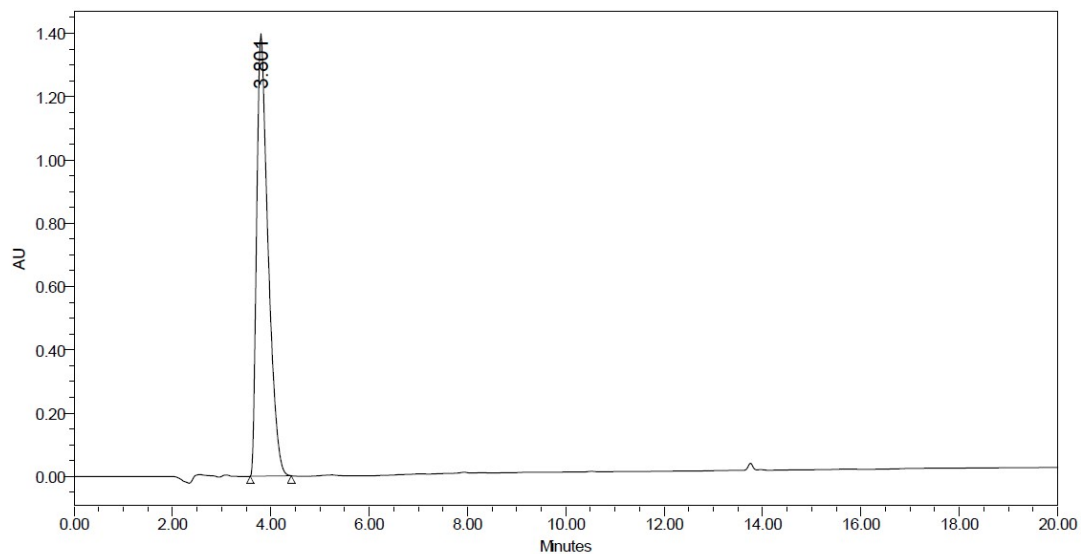
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.933	14100511	100.00	987549	100.00

S 7. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 5)



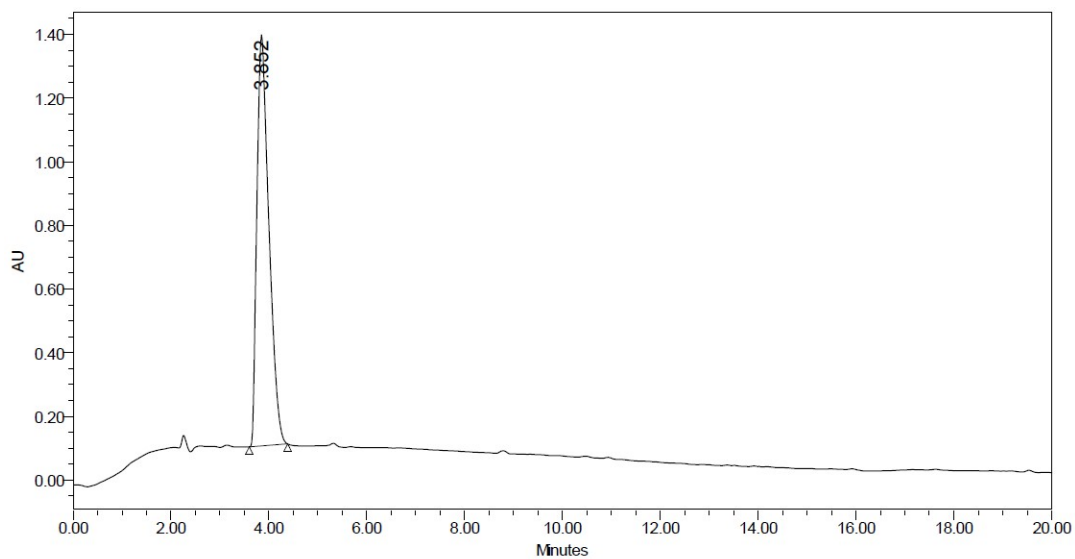
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.809	687410	100.00	42589	100.00

S 8. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 6)



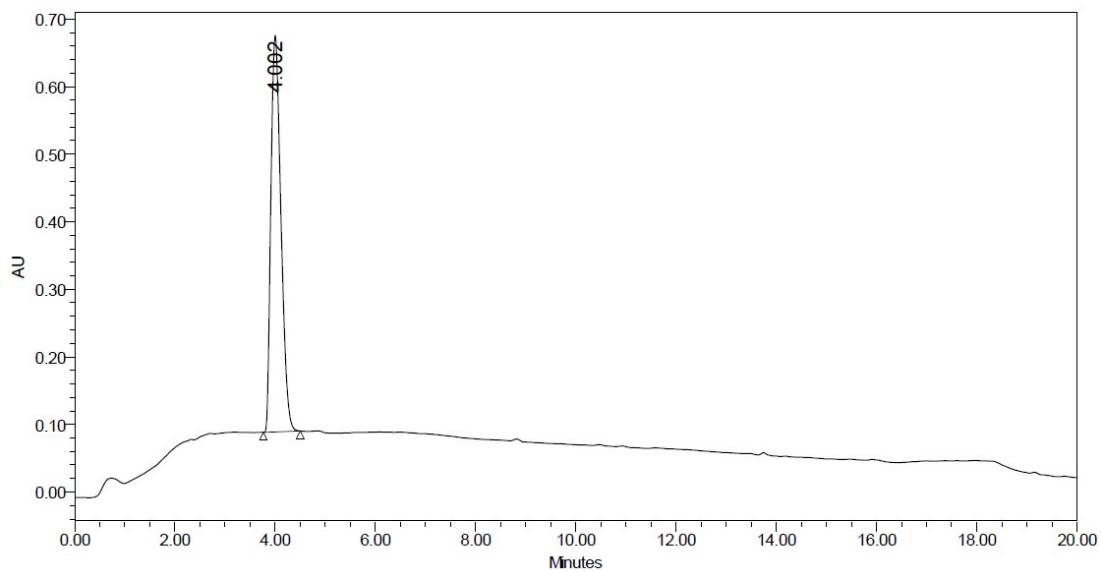
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.801	22536012	100.00	1396646	100.00

S 9. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 7)



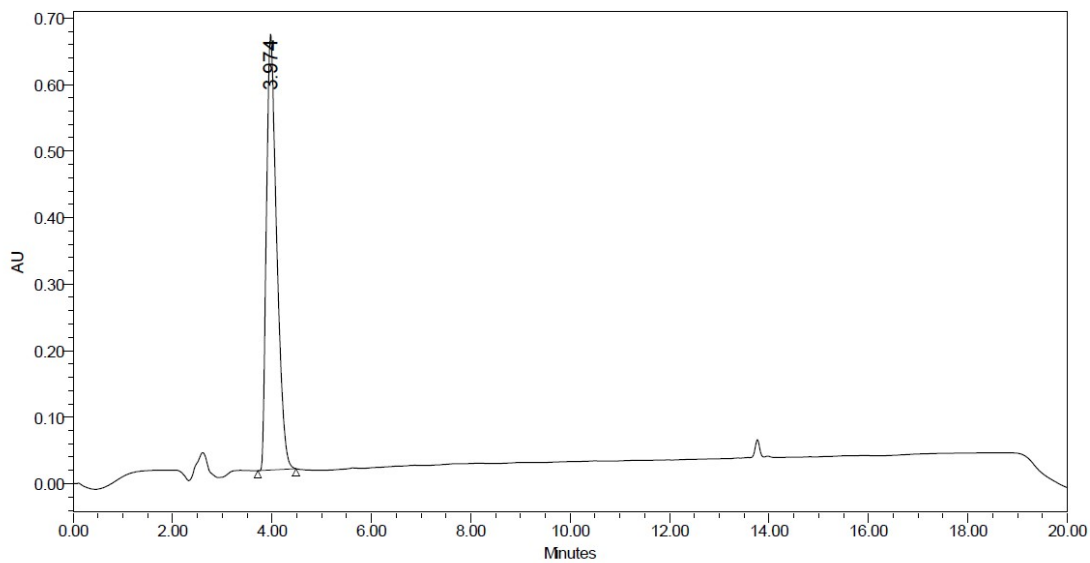
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.852	514204	100.00	30096	100.00

S 10. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 8)



	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	4.002	322975	100.00	23106	100.00

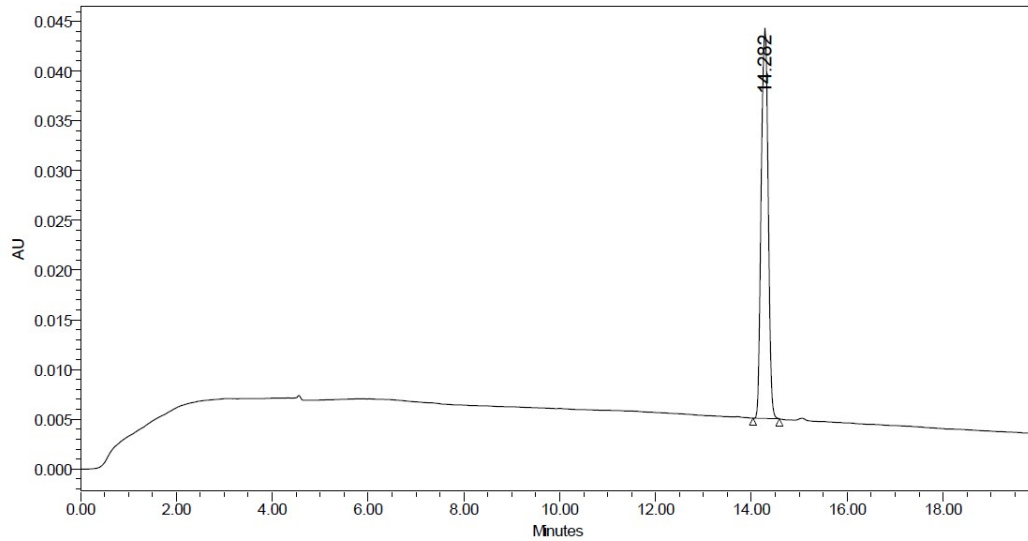
S 11. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 9)



	RT (min)	Area ($\mu\text{V}^2\text{sec}$)	% Area	Height (μV)	% Height
1	3.974	9355956	100.00	656670	100.00

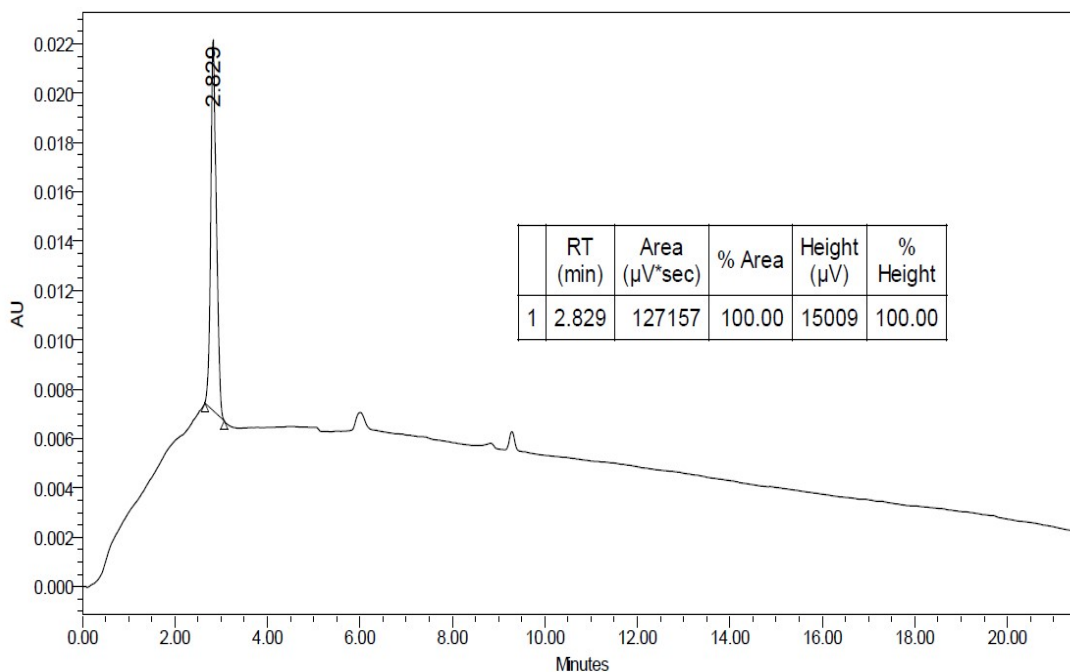
S 12. Reusability investigation of CuO-NPs in catalyzing 4-Nitrophenol (Run 10)

Reduction of various substrates catalyzed by CuO-Nanosheet

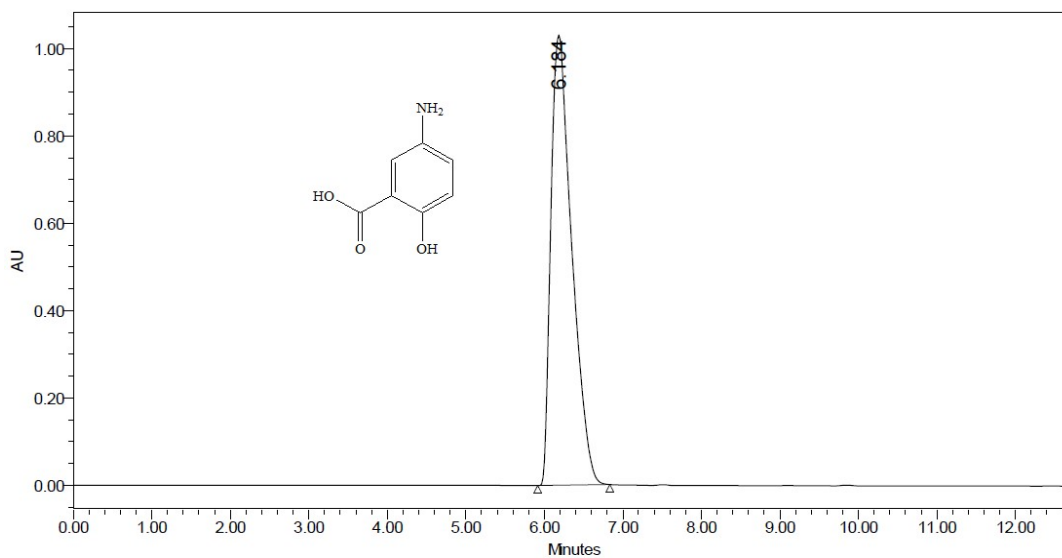


	RT (min)	Area ($\mu\text{V}^2\text{sec}$)	% Area	Height (μV)	% Height
1	14.282	396028	100.00	39195	100.00

S 13. HPLC of 4-nitroaniline

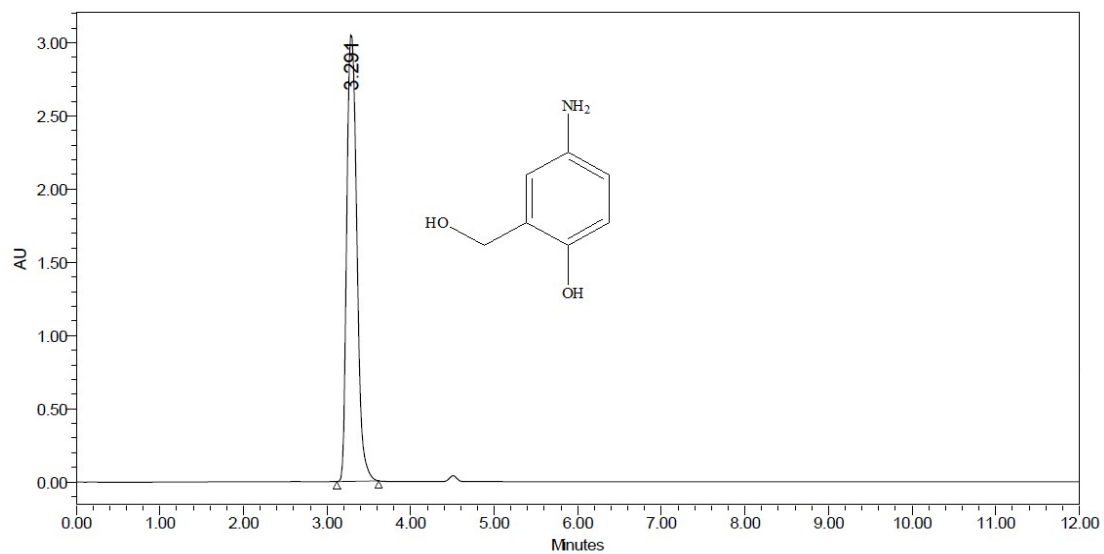


S 14. HPLC of reduction reaction of 4-nitroaniline to 4-aminoaniline



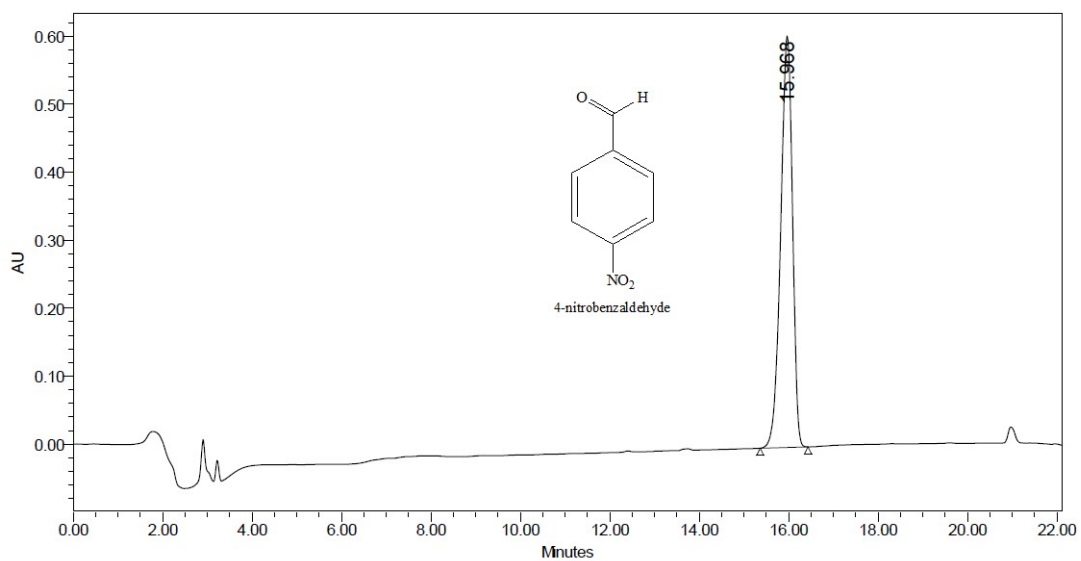
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	6.184	19017345	100.00	1030708	100.00

S 15. HPLC of 5-amino-2-hydroxybenzoic acid (5-ASA)



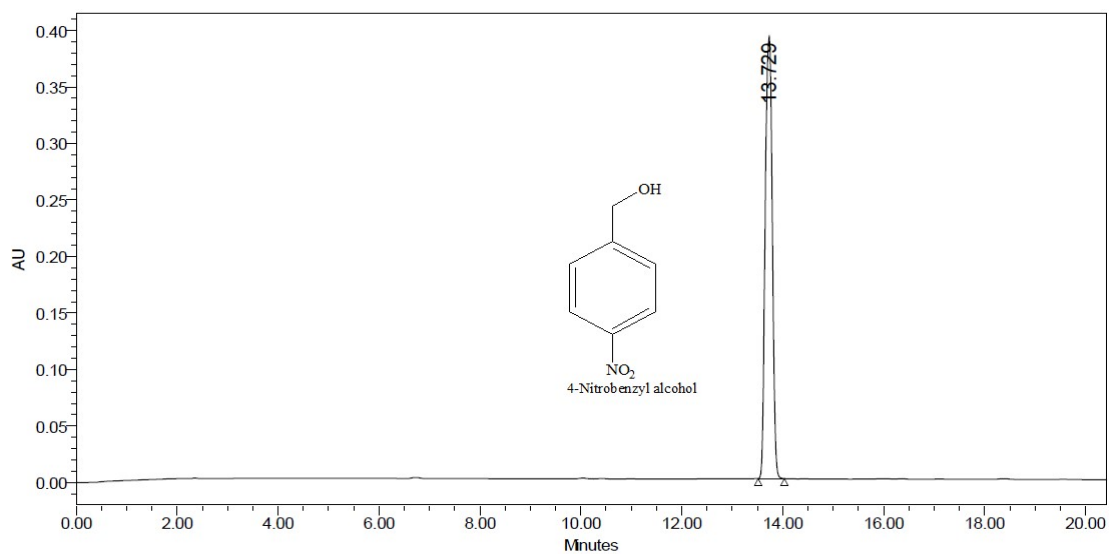
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	3.291	25529199	100.00	3082354	100.00

S 16. Reduction of 5-amino-2-hydroxybenzoic acid to 4-amino-2-(hydroxymethyl)phenol



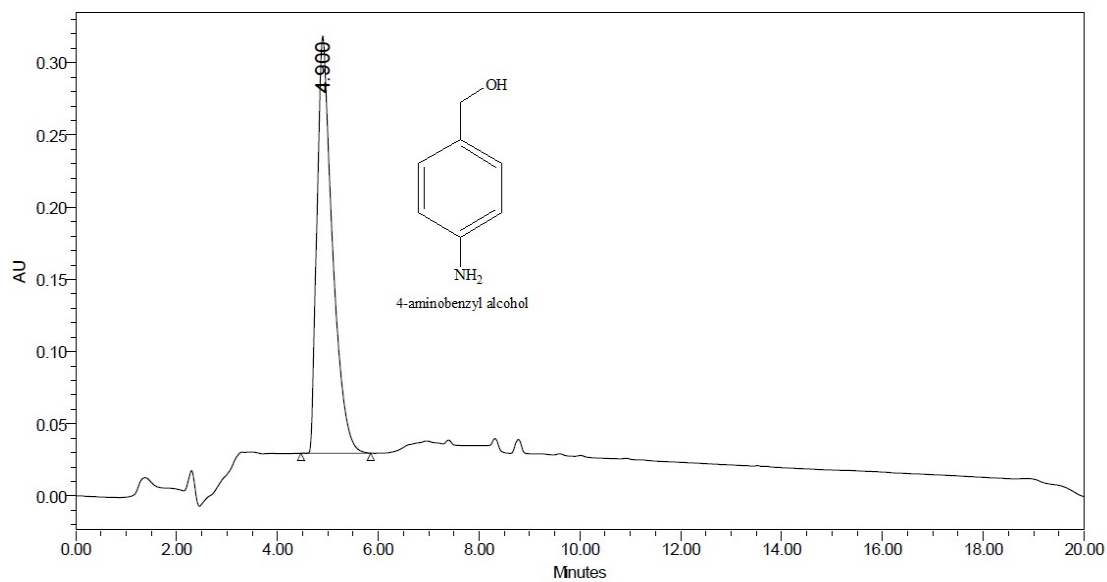
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	15.968	11098183	100.00	605203	100.00

S 17. HPLC of 4-nitrobenzaldehyde (Standard)



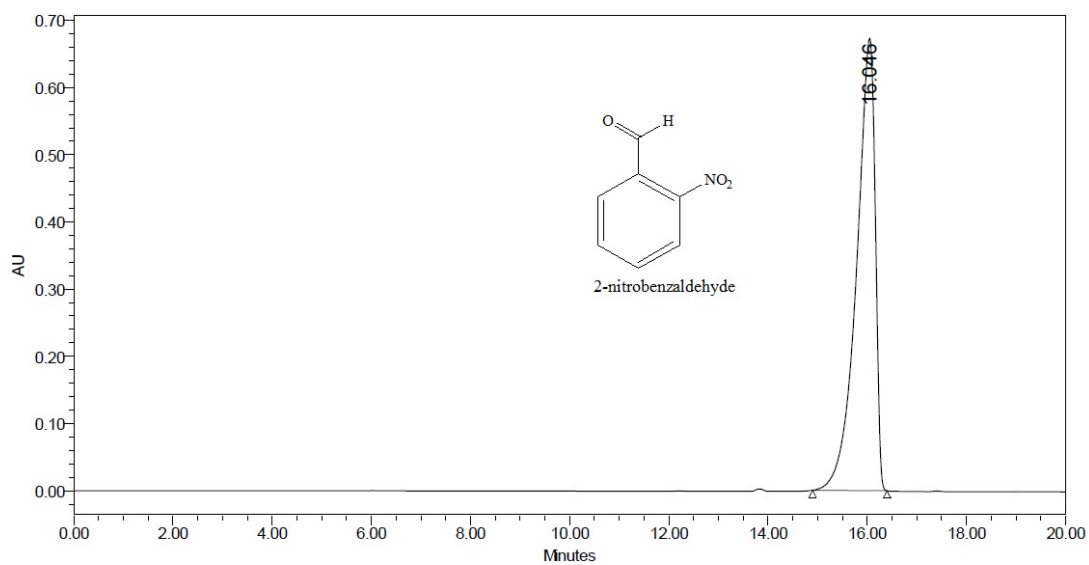
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	13.729	3775886	100.00	392580	100.00

S 18. Reduction of 4-nitrobenzaldehyde to 4-Nitrobenzyl alcohol by NaBH_4 without catalyst.



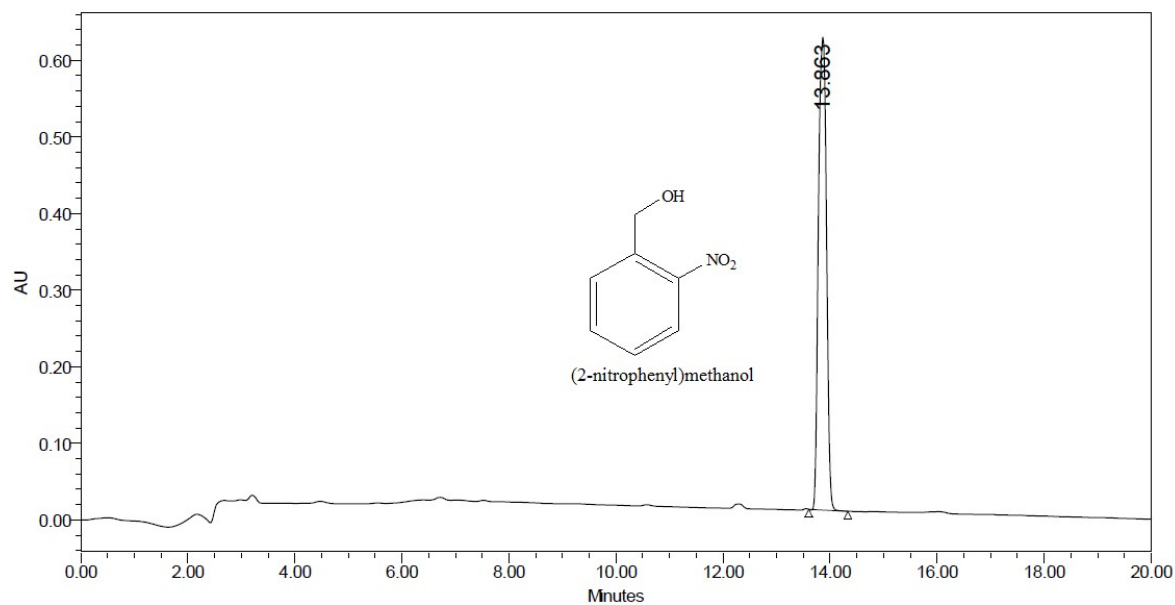
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	4.900	6166782	100.00	288771	100.00

S 19. Reduction of 4-nitrobenzyl alcohol to 4-aminobenzyl alcohol by NaBH_4 using catalyst



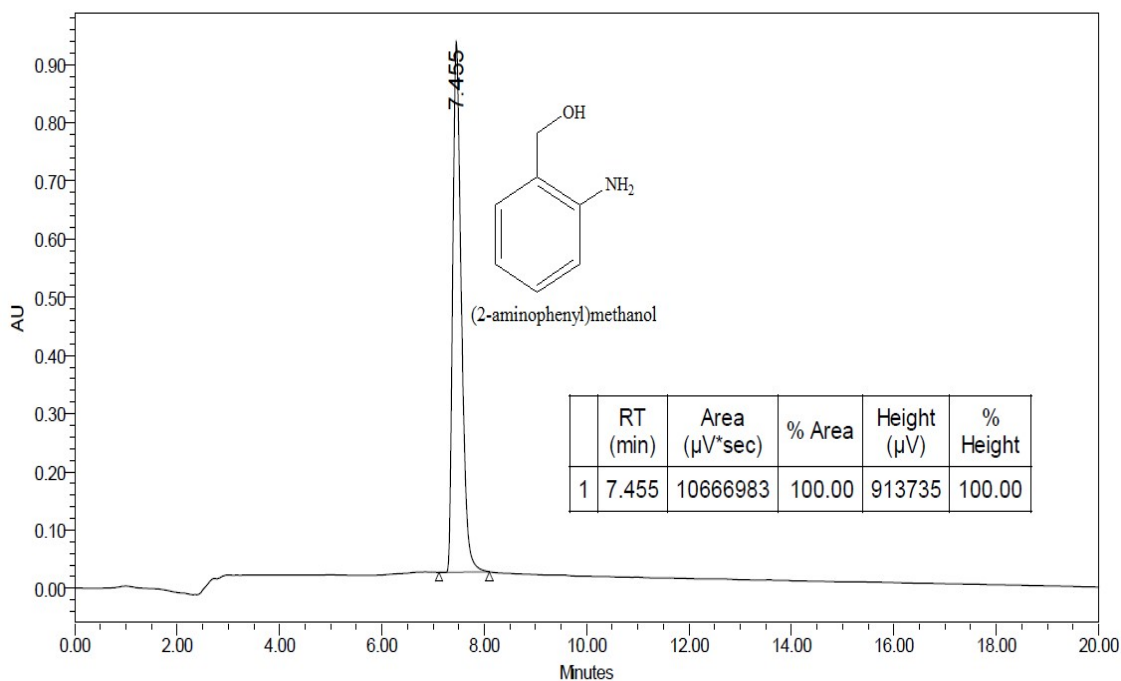
	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	16.046	17528242	100.00	673526	100.00

S 20. HPLC of 2-nitrobenzaldehyde (st)



	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	13.863	6466791	100.00	618050	100.00

S 21. Reduction of 2-nitrobenzaldehyde to (2-nitrophenyl)methanol by NaBH_4 without catalyst



	RT (min)	Area ($\mu\text{V}\cdot\text{sec}$)	% Area	Height (μV)	% Height
1	7.455	10666983	100.00	913735	100.00

S 22. Reduction of (2-nitrophenyl)methanol to (2-aminophenyl)methanol by NaBH_4 using catalyst