

Supporting Information

for

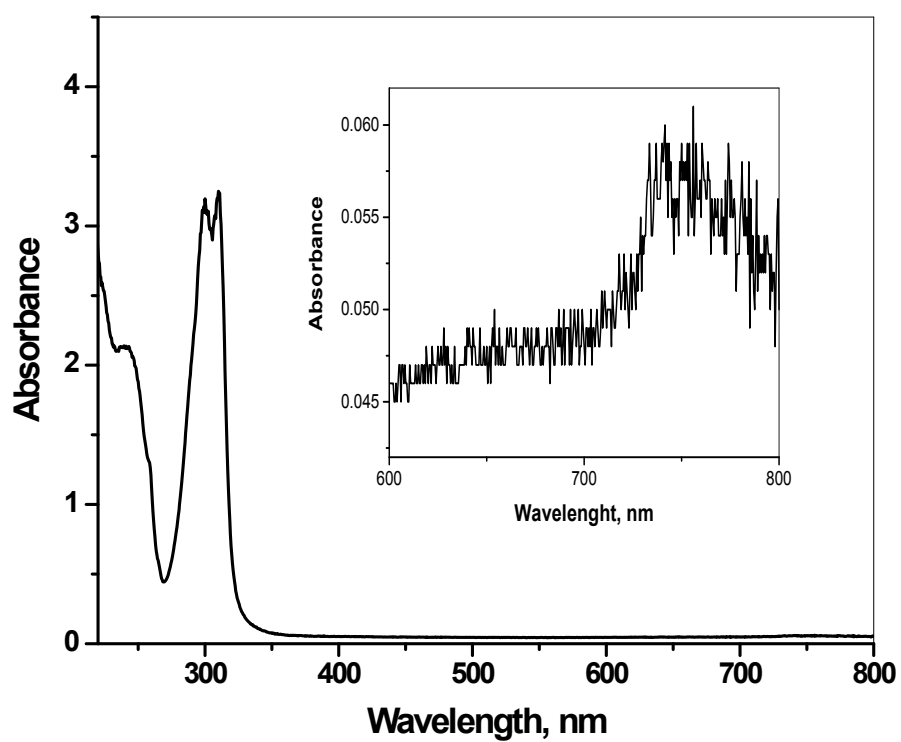
**Nitrogen-Doped Graphene-Supported Copper Complex: A Novel  
Photocatalyst for CO<sub>2</sub> Reduction under Visible Light Irradiation**

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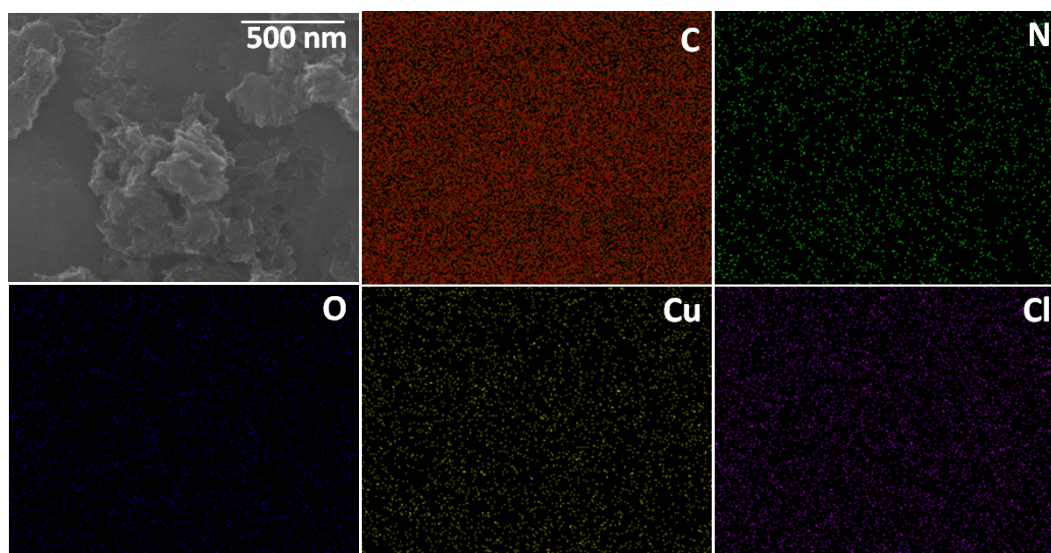
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**Figure S1**



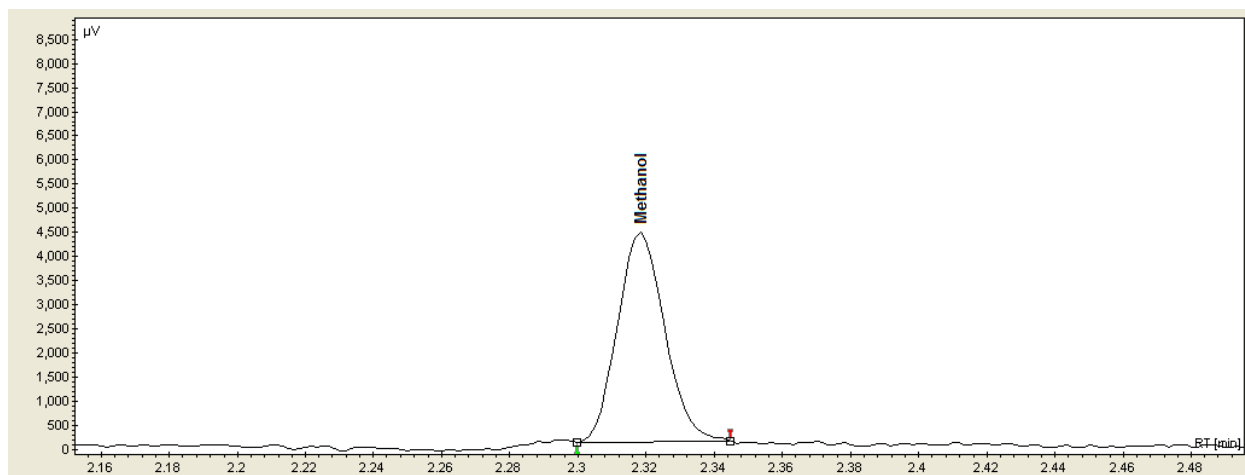
**Figure S1.** UV-Vis spectrum of Copper complex in the range of 220-800 nm. Inset highlight the absorbance in the range of 600-800 nm.

**Figure S2**



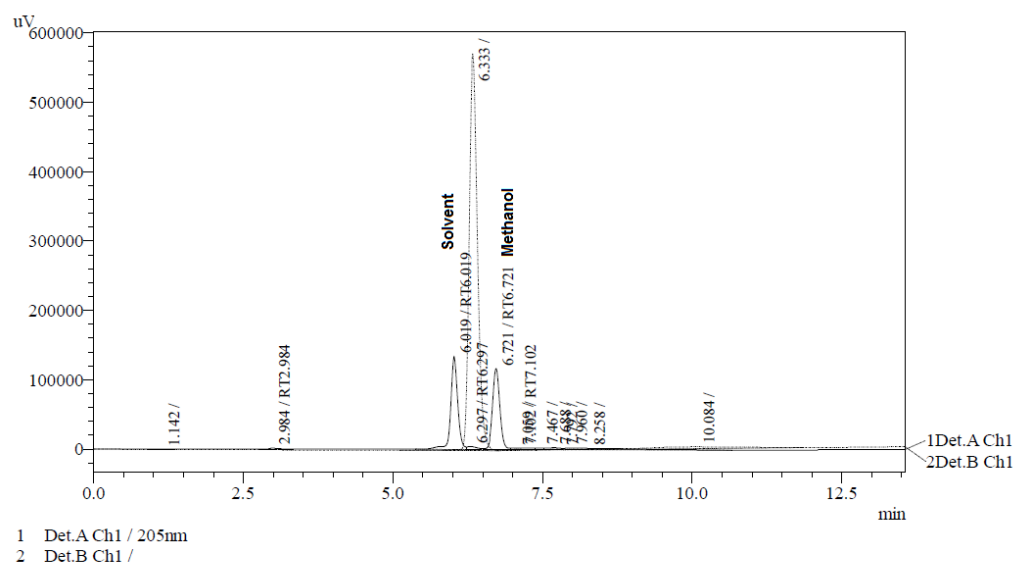
**Figure S2.** FESEM micrographs and corresponding elemental mapping images of GrN<sub>700</sub>-CuC. The uniform distribution of copper and chlorine revealed the regular grafting of copper complex on the N-doped graphene.

**Figure S3**



**Figure S3.** Gas chromatogram of photoreaction product after 24 hours of visible light irradiation using GrN<sub>700</sub>-CuC catalyst.

**Figure S4**



## Results

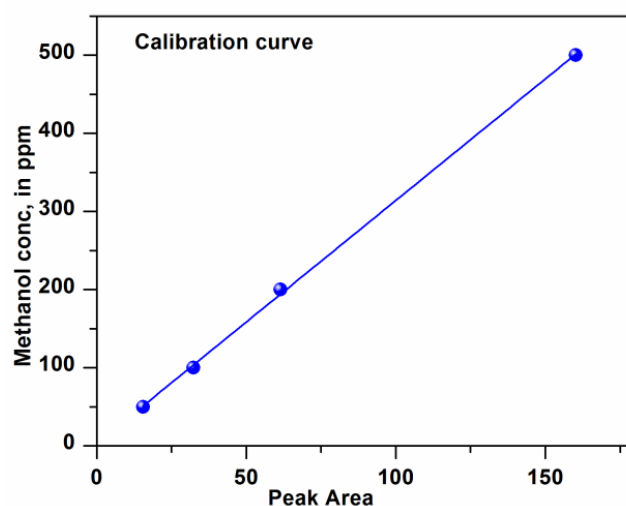
PeakTable

Peak#	Ret. Time	Area	Height	Area %	Height %
1	2.984	16732	1864	0.685	0.698
2	6.019	1119501	134543	45.830	50.351
3	6.297	49923	4295	2.044	1.607
4	6.721	976287	116834	39.967	43.723
5	7.102	56700	2393	2.321	0.896
6	7.467	20647	2301	0.845	0.861
7	7.688	43510	2707	1.781	1.013
8	7.960	159419	2272	6.526	0.850
Total		2442718	267211	100.000	100.000

Methanol

**Figure S4.** HPLC chromatogram of photoreaction product after 24 hours of visible light irradiation using GrN<sub>700</sub>-CuC catalyst, based on UV and RI detectors signals.

**Figure S5**



**Figure S5.** GC calibration curve for the quantification of methanol

**Table S1.** Elemental Distribution (atomic % ) based on XPS analysis of samples

Sample Description	C	O	N	Cu	Cl
GO	64.10	35.90	-	-	-
GrN <sub>700</sub> -CuC	84.46	6.93	6.01	1.96	0.64