

Supplementary Information

Pyrochlore $\text{Ce}_2\text{Zr}_2\text{O}_7$ decorated over rGO: A Photocatalyst that Proves to be efficient towards reduction of 4-Nitrophenol and degradation of Ciprofloxacin under Visible light

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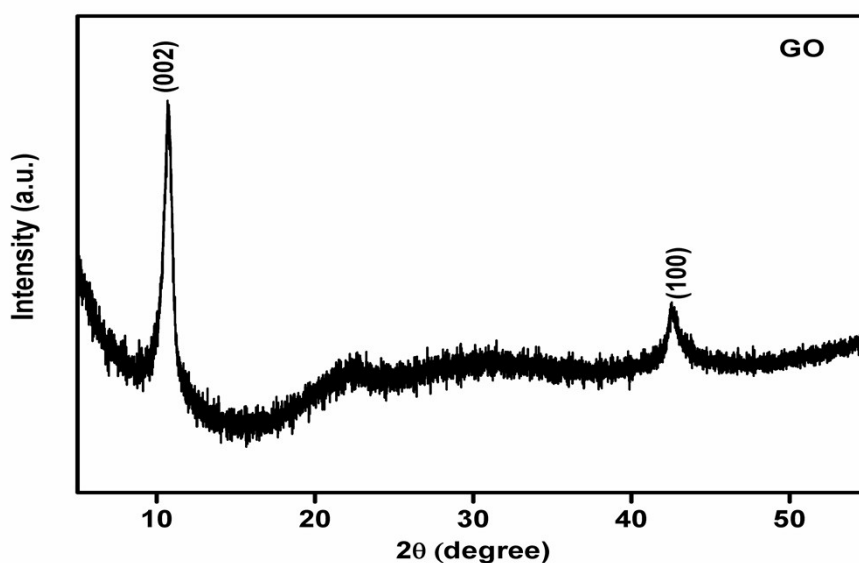


Fig. S1 XRD plot of GO

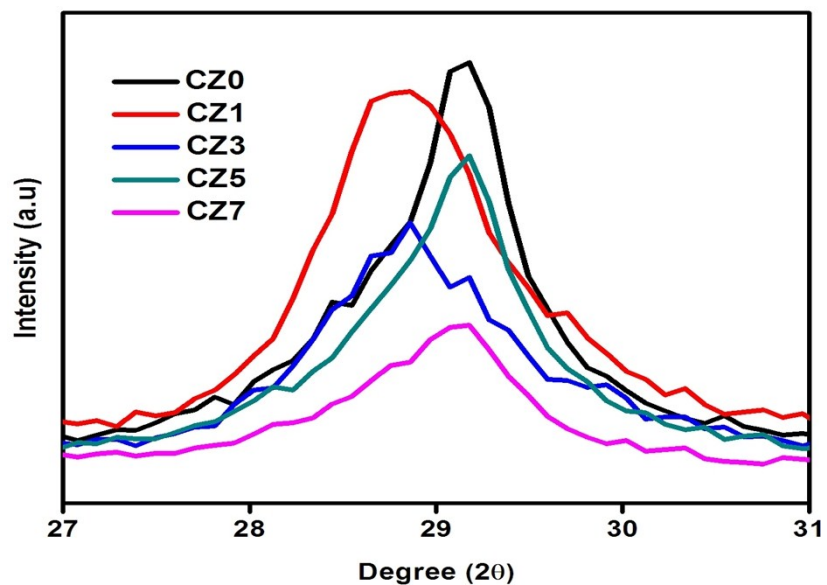


Fig. S2 XRD peak shift of 222 planes of CZ0, CZ1, CZ3, CZ5 & CZ7

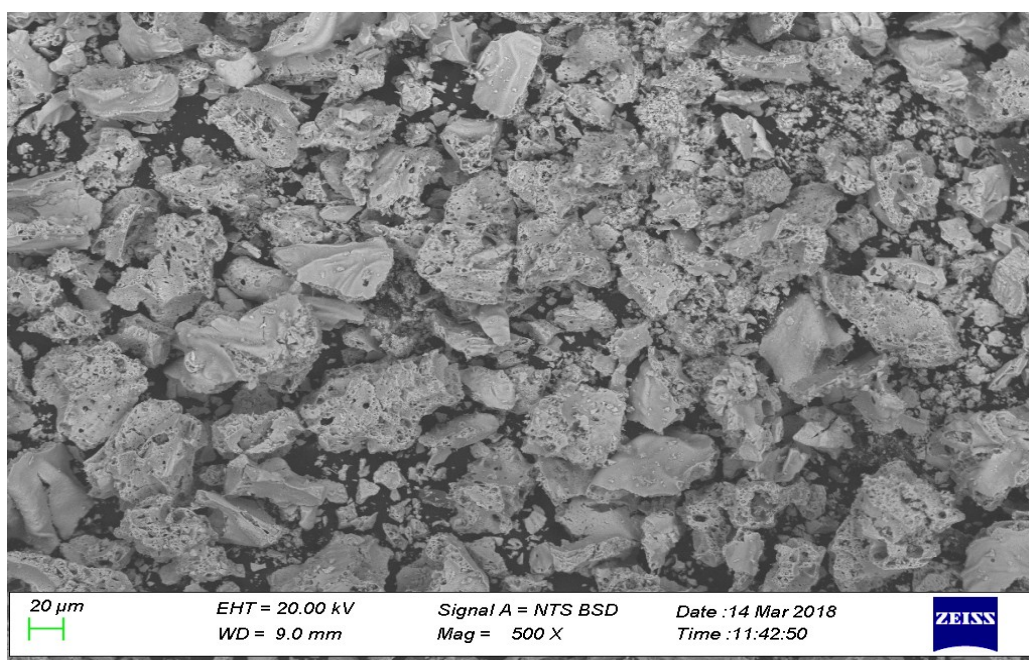


Fig. S3 SEM image of CZ3

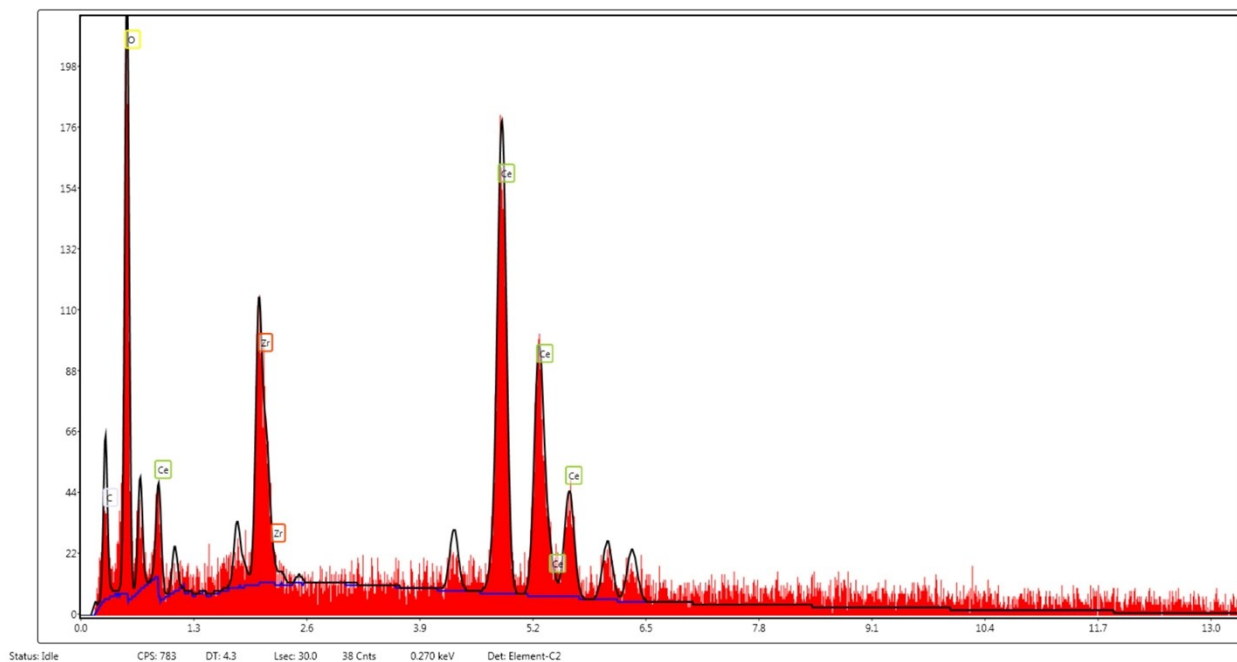


Fig. S4 Edx study of CZ3

Table S1 Various reported work on 4 Nitrophenol photoreduction

Material	Light source	Time	% degradation	Rate constant	Reference
Reduced Graphene Oxide – Zinc Sulfide (RGO-ZnS)	simulated solar light	70 min	87	$30 \times 10^{-3} \text{ min}^{-1}$	1
Au/g-C ₃ N ₄	500W xenon lamp	10 min	100	$7.9895 \times 10^{-3} \text{ s}^{-1}$	2
Graphene modified TiO ₂	150 W Hg lamp	120 min	59.6	0.021 min^{-1}	3
Fe ₂ O ₃ /gC ₃ N ₄	300 W Xe lamp light	40 min	90	0.0743 min^{-1}	4
RGO–ZnSe	solar light simulator	35 min	85	0.08 min^{-1}	5
Carbon rich g-C ₃ N ₄	150 W xenon lamp	180 min	100	-	6
Ce ₂ Zr ₂ O ₇ decorated over rGO	250W Hg light	120 min	99	0.02609	Present work

Reference:

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