## **Supplementary Materials**

## Enhanced Visible Light Photodegradation of Microplastic Fragments with Plasmonic Platinum/Zinc Oxide Nanorod Photocatalysts

## Enhanced Visible Light Photodegradation of Microplastic Fragments with Plasmonic Platinum/Zinc Oxide Nanorod Photocatalysts

Tajkia Syeed Tofa 1,2, Fei Ye 3, Karthik Laxman Kunjali 3 and Joydeep Dutta 3,\*

- <sup>1</sup> Department of Sustainable Development, Environmental Science and Engineering (SEED), School of Architecture and Built Environment, KTH Royal Institute of Technology, 100 44 Stockholm, Sweden
- <sup>2</sup> Department of Civil and Environmental Engineering (CEE), Islamic University of Technology, Gazipur 1704, Dhaka, Bangladesh
- <sup>3</sup> Functional Materials, Department of Applied Physics, School of Engineering Sciences, KTH Royal Institute of Technology, 164 40 Kista, Stockholm, Sweden
- \* Correspondence: joydeep@kth.se; Tel.: +46-8-7908142

Received: 14 September 2019; Accepted: 26 September 2019; Published: date

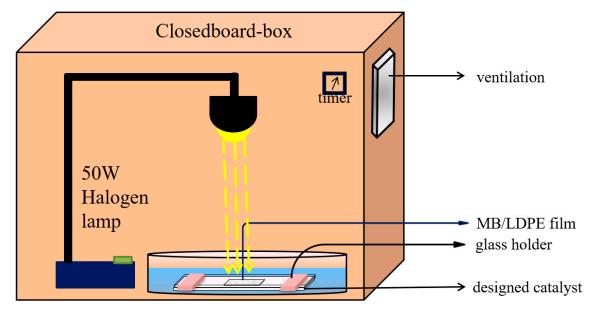


Figure S1. Experimental setup for photocatalytic degradation of LDPE film.

Spectrum 4	Element	Weight%	Atomic%
<b>\$</b>	Oxygen, O	23.94	57.46
	Zinc, Zn	70.63	41.48
	Platinum, Pt	5.43	1.07
0 1 2 3 4 5 6 Full Scale 907 cts Cursor: 6.651 (2 cts) keV		•	

**Figure S2.** X-ray dispersive spectroscopy (EDX) result showing relative elemental composition of ZnO-Pt catalyst.