## Cathodic and anodic photocurrents generation from melem

## and its derivatives

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Fig. S1 Current-potential curves of ITO/PEDOT:PSS/M-x electrodes in 0.1 M KCl.

		Table ST	BET surface areas of the samples.				
Sample	<b>M-400</b>	M-450	<b>M-500</b>	M-550	<b>M-600</b>	M-650	
S <sub>BET</sub> (m <sup>2</sup> /g)	3.9	5.6	6.7	7.4	8.5	9.8	

 Table S1
 BET surface areas of the samples.



Fig. S2 SEM images of M-400 (a), M-450 (b), M-500 (c), M-550 (d), M-600 (e), M-650 (f).



Fig. S3 Proposed reaction mechanism of water oxidation and Reduction by graphitic carbon nitride nanorods.<sup>23</sup>



Fig. S4 Photocurrent generation from ITO/PEDOT:PSS/M-x electrodes at -0.2 V and 0.8 V vs Ag/AgCl in 0.1 M KCl.



Fig. S5 Photocurrent response from ITO/PEDOT:PSS/M-450 electrode at -0.2 V and 0.8 V vs Ag/AgCl in 0.1 M KCl.