Supplementary Information

A Pt-free pristine monolithic carbon aerogel counter electrode for dye-sensitized solar cells: up to 20% at dim light illumination

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Substrate	E _r (GPa)	H (GPa)	$P_{max}\left(\mu N ight)$	A (nm ²)
Pt/FTO/glas	40.47	5.25	987	167,744
S				
CA-O	N/A	N/A	N/A	N/A
CA-F	33.13	5.56	298	53,663
CA-C	24.94	3.01	298	99,123

Table S1. Brinell hardness test parameters of Pt/FTO/glass, CA-F, and CA-C. Note that E_r : reduced modulus; H: hardness; P_{max} : the peak indentation load; A: the project area.



Figure S1. Fracture toughness plot of Pt/FTO/glass, CA-F, and CA-C.



Figure S2. The normalized stability data for the CA-C CE up to 1,000 CV cycles.