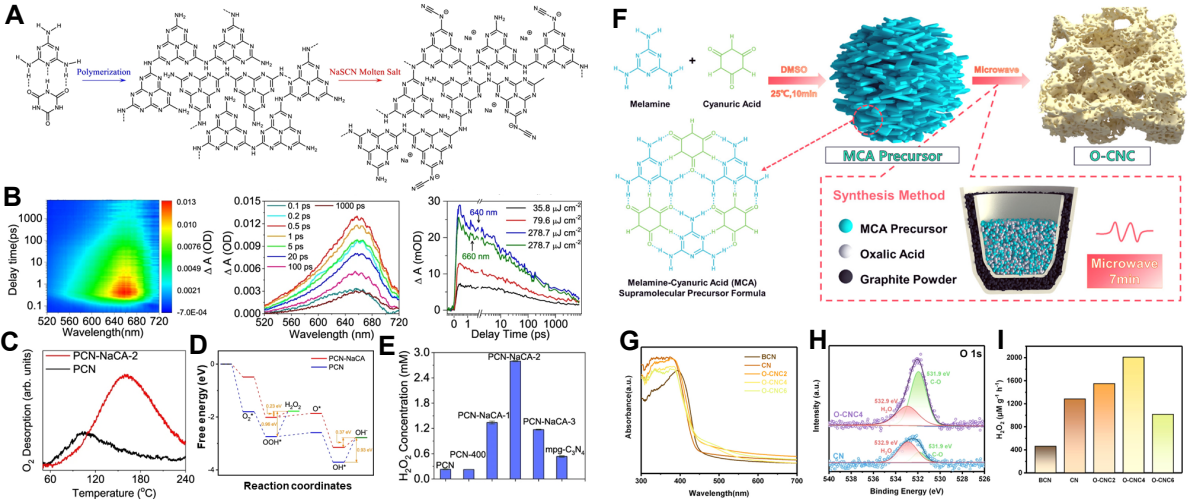
A
Polymerization
NaSCN Molten Salt
B
Delay time(ps)
Wavelength(nm)
Δ A (OD)
0.1 ps
0.2 ps
0.5 ps
1 ps
5 ps
20 ps
100 ps
1000 ps
Δ A (mOD)
640 nm
660 nm
35.8 μJ cm-2
79.6 μJ cm-2
278.7 μJ cm-2
278.7 μJ cm-2
C
PCN-NaCA-2
PCN
O2 Desorption (arb. units)
Temperature (°C)
D
PCN-NaCA
PCN
Free energy (eV)
Reaction coordinates
O2-
H2O2
O*
OOH*
OH-
OH*
E
PCN
PCN-400
PCN-NaCA-1
PCN-NaCA-2
PCN-NaCA-3
mpg-C3N4
H2O2 Concentration (mM)
F
Melamine
Cyanuric Acid
DMSO
25℃,10min
Microwave
MCA Precursor
O-CNC
Melamine-Cyanuric Acid (MCA) Supramolecular Precursor Formula
Synthesis Method
MCA Precursor
Oxalic Acid
Graphite Powder
Microwave
7min
G
BCN
CN
O-CNC2
O-CNC4
O-CNC6
Absorbance(a.u.)
Wavelength(nm)
H
O 1s
O-CNC4
CN
Intensity (a.u.)
Binding Energy (eV)
I
H2O2 (μM g-1 h-1)
BCN
CN
O-CNC2
O-CNC4
O-CNC6