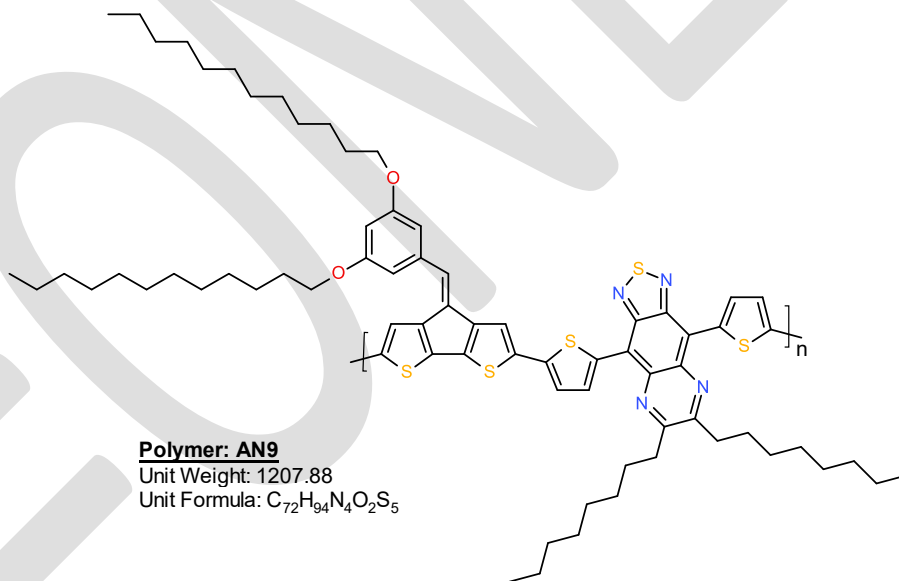


CERTIFICATE OF ANALYSIS

1M Material: AN9, SWIR-AN9

Chemical Name: copolymer of 4-(3,5-bis(dodecyloxy)benzylidene)-4*H*-cyclopenta[2,1-*b*:3,4-*b'*]dithiophene-2,6-diylbis(trimethylstannane) and 4,9-bis(5-bromothiophene-2-yl)-6,7-dioctyl-[1,2,5]thiadiazolo[3,4-*g*]quinoxaline

Chemical Structure:



Lot number: SX12244CH

Appearance: Dark green fine particles

Molecular weight (GPC): ~100K (estimated)

Polydispersity(PDI): ~2.0

Solubility: Soluble in CHCl₃, chlorobenzene and other selected solvents

NMR analysis: Structure confirmed

Assay: 99+% (basing on NMR of monomers)

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AN9 =P1

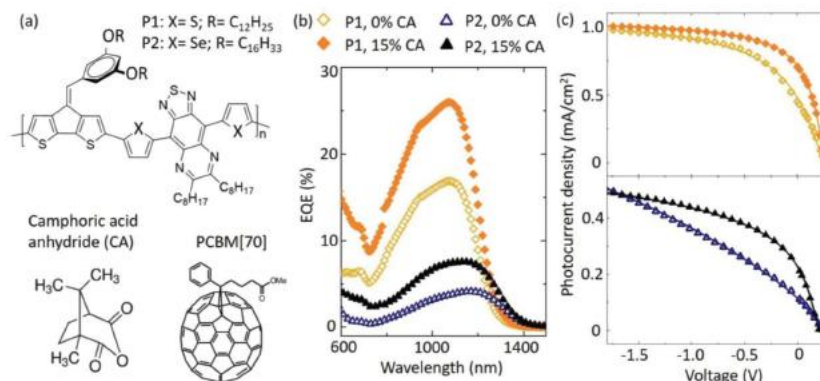
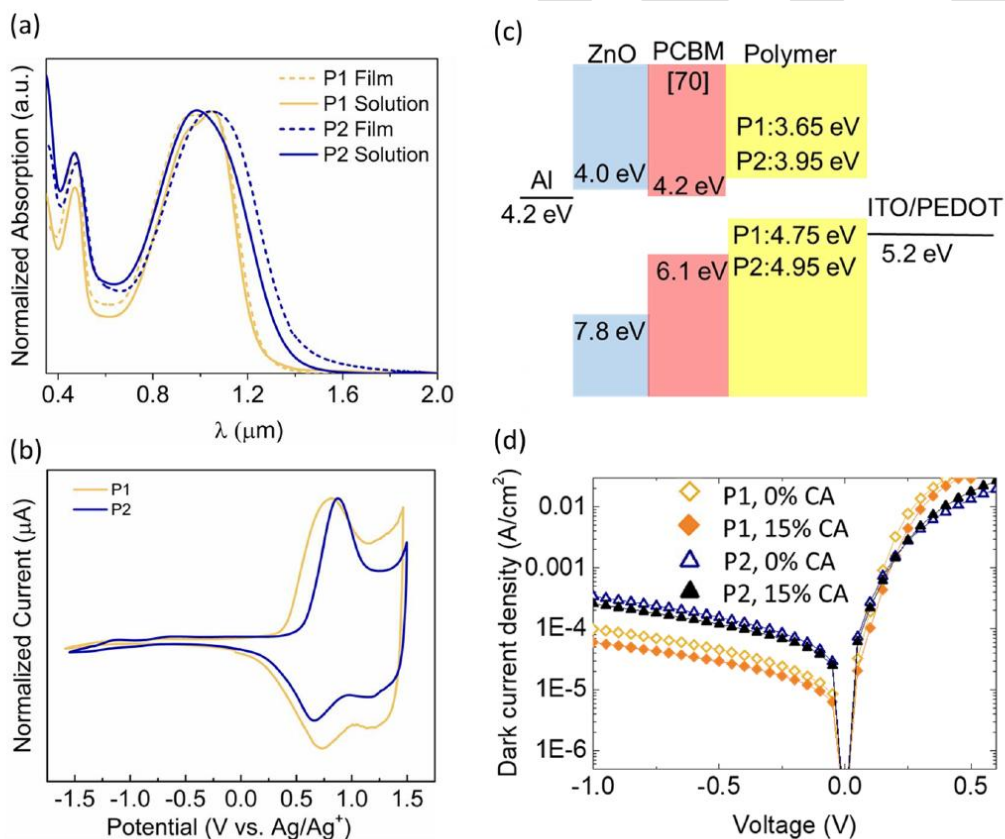


Figure 1. a) Chemical structures of the bulk heterojunction materials. b) External quantum efficiency of the photodiodes at zero applied voltage versus incident wavelength. c) Photocurrent density versus applied voltage under incident light with $\lambda = 1100$ nm and an intensity of 3.2 mW cm^{-2} . The data are fitted to Equation (3) as depicted by the solid lines.



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