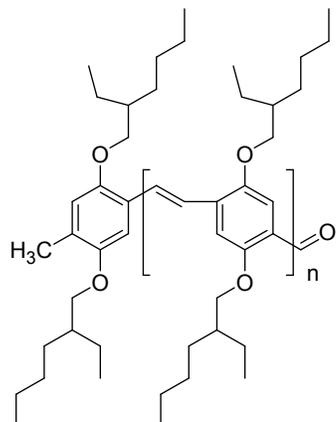


Sample Name:

Aldehyde End Functionalized Poly(2,5-di(2'-ethylhexyloxy)-1,4-phenylenevinylene)

Sample #: P14442A-DEHPVCHO

Structure:

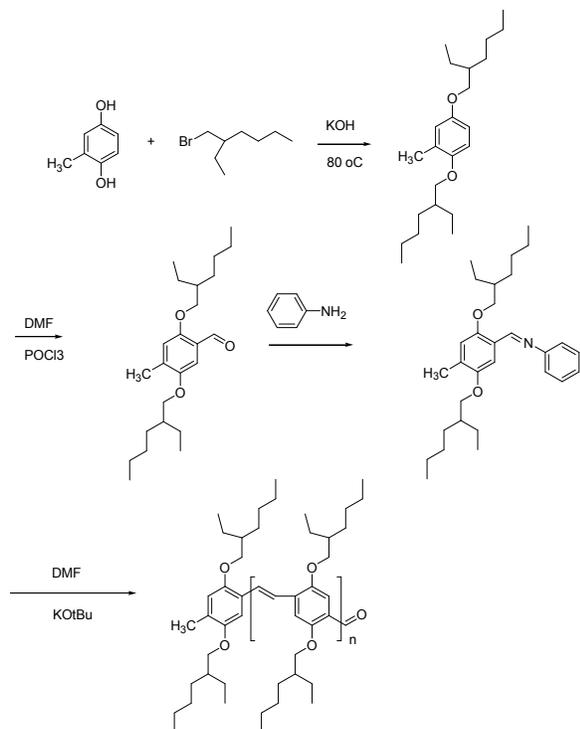


Composition:

Mn x 10 ³	PDI
3.3	1.2

Synthesis Procedure:

DEH-PPV is synthesized by polymerization of Seigrüst polycondensation under basic condition in DMF, followed by hydrolysis in acidic water. The polymer was then dissolved in chloroform and washed with distilled water until neutral, dried over MgSO₄ and precipitated into cold methanol.



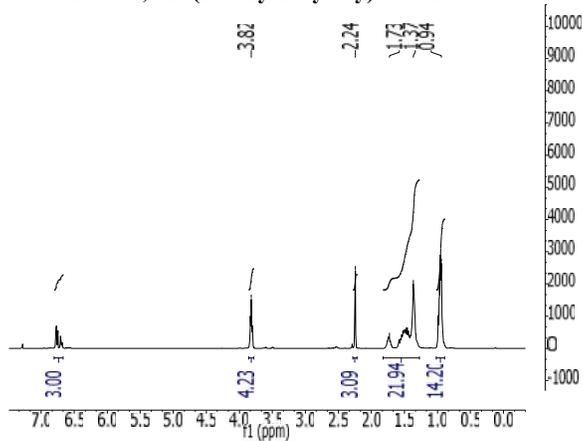
Characterization:

The molecular weight was obtained by ¹H NMR by comparing the end aldehyde group at 10.5 ppm to aromatic proton at 7.54 ppm or vinyl proton at 7.26 ppm.

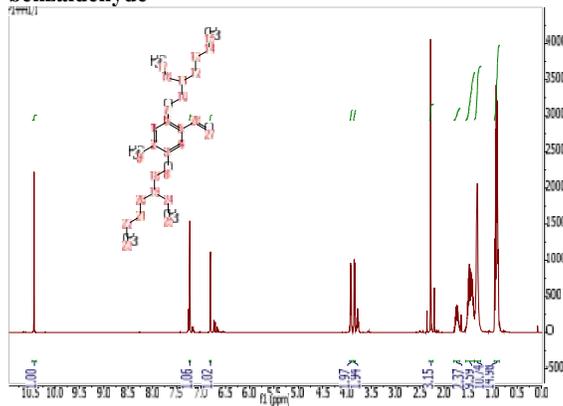
Solubility:

MEH-PPV is soluble in THF and CHCl₃.

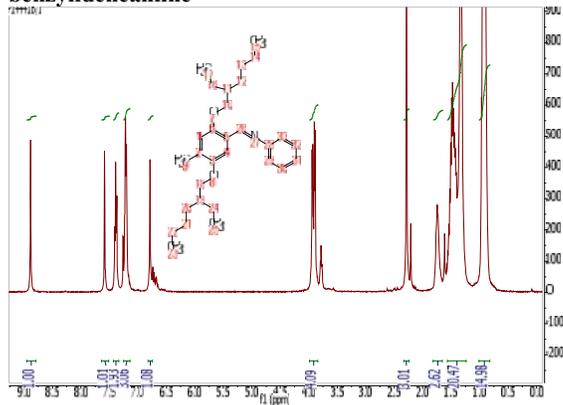
¹H NMR of 2,5-Di(2'-ethylhexyloxy) toluene



¹H NMR of 2,5-Di(2'-ethylhexyloxy)-4-methyl-benzaldehyde



¹H NMR of 2',5'-Di(2''-ethylhexyloxy)-4'-methyl-N-benzylideneaniline



¹H NMR of DEH-PPV

