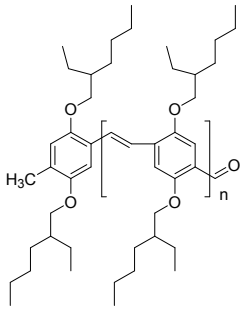
Sample Name:
Aldehyde Terminated Poly(2,5-di(2'-ethylhexyloxy)-1,4-phenylenevinylene)
Sample #: **P14448AA-DEHPVCHO**

Structure:

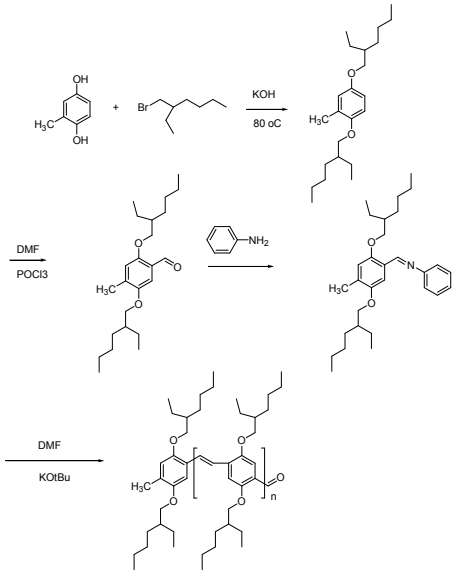


Composition:

Mn x 10^3	PDI
10.5	1.8
Dp of DEHPV About 30 units	

Synthesis Procedure:

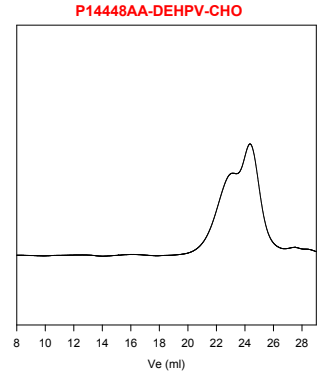
DEH-PV is synthesized by polymerization of Seigrist polycondensation under basic condition in DMF, followed by hydrolysis in acidic water. The polymer was then dissolved in chloroform and washed with distilled water until neutral, dried over MgSO4 and precipitated into cold methanol.



Characterization: The molecular weight was obtained by ^{1}H 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.

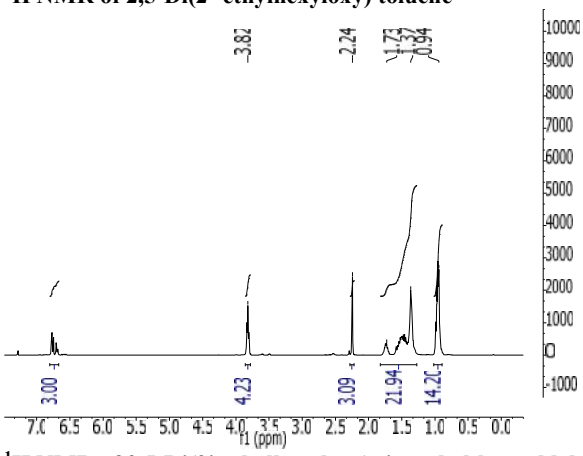
Solubility:

MEH-PPV is soluble in THF, $CHCl_3$, hexane and toluene.

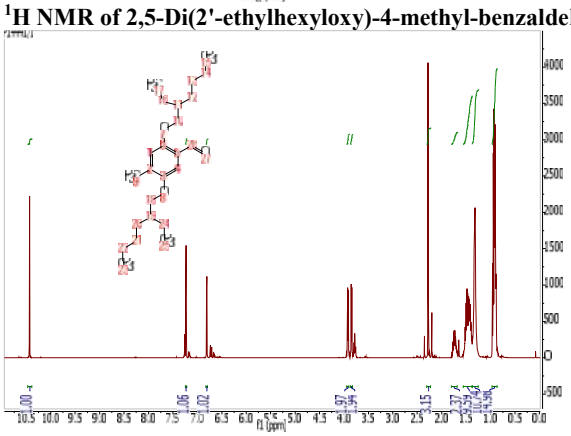


Size exclusion chromatography of the Polylmer
—— M_n=10,500, M_w=19,000, PI=1.8

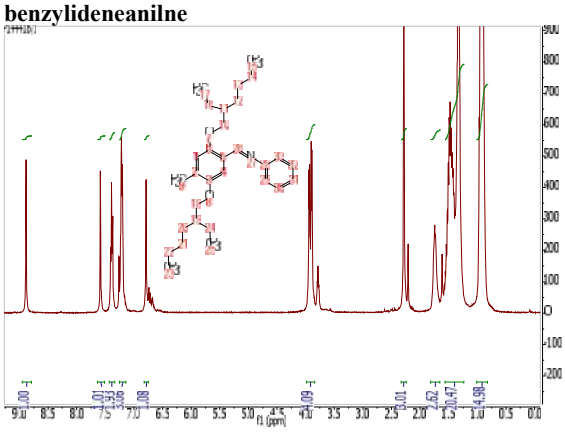
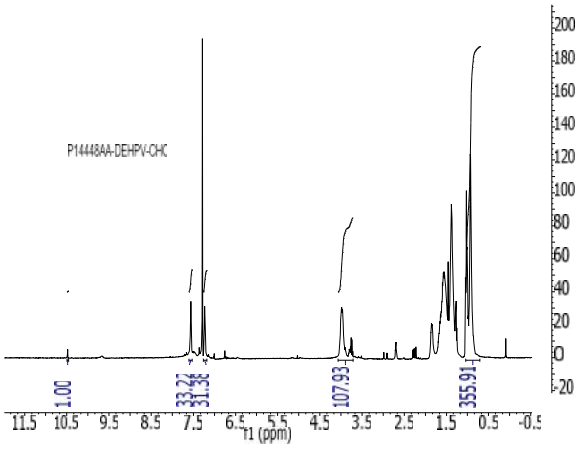
^{1}H NMR of 2,5-Di(2'-ethylhexyloxy) toluene



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



^{1}H NMR of 2',5'-Di(2''-ethylhexyloxy)-4'-methyl-N-benzylideneanilne



^{1}H NMR of DEH-PPV