SUPPLEMENTARY INFORMATION

Electronic Energy Transfer in Pendant MEH-PPV Polymers

Andrew J. Tilley,1,2 Ming Chen,1,3 Stephen M. Danczak,1,2 Kenneth P. Ghiggino1,2,* and Jonathan M. White1,2,*

1. School of Chemistry, University of Melbourne, Parkville, Victoria, Australia, 3010.
2. Bio21 Molecular Science and Biotechnology Institute, University of Melbourne, Parkville, Victoria, Australia, 3010.
3. CSIRO Materials Science and Engineering, Clayton South, Victoria, Australia, 3169.

*Authors to whom correspondence should be addressed.

Email:
ghiggino@unimelb.edu.au
whitejm@unimelb.edu.au

Table of Contents

1H NMR spectra of compounds 4 and 1a-c 2-5
31P NMR spectrum of compound 4 6
FT-IR spectra of compounds 4 and 1a-c 7-10
GPC traces of compounds 2-4 and 1a-c 11-16
Fluorescence decays and fitting parameters for polymers 1a-c 17-19
$^1$H NMR Spectra

$^1$H NMR of 4 (500 MHz, CDCl$_3$)
$^1$H NMR of 1a (400 MHz, CDCl₃)
$^{1}H$ NMR of 1b (500 MHz, CDCl₃)
$^1$H NMR of 1c (500 MHz, CDCl$_3$)
$^{31}$P NMR spectrum

$^{31}$P NMR of 4 (500 MHz, CDCl$_3$)
FT-IR spectra
GPC Traces
Auto-Scaled Chromatogram

Sample Name: RAFT end removal; Vial 2; Injection 1; Channel 410; Date Acquired: 13/08/2009 12:51:06 PM

GPC Results

<table>
<thead>
<tr>
<th>Retention Time</th>
<th>Adjusted RT</th>
<th>Mn</th>
<th>Mw</th>
<th>MP</th>
<th>Mz</th>
<th>Mz+1</th>
<th>Polydispersity</th>
<th>Baseline Start</th>
<th>Baseline End</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29.912</td>
<td>3543</td>
<td>3865</td>
<td>3724</td>
<td>4237</td>
<td>4702</td>
<td>1.090965</td>
<td>26.733</td>
<td>33.567</td>
</tr>
</tbody>
</table>

Gel Permeation Chromatography (GPC) results showing retention times, adjusted retention times, molecular weights, and polydispersity indices.
Auto-Scaled Chromatogram

Sample Name: AJT 3-26; Vial 13; Injection 1; Channel 410; Date Acquired: 5/09/2009 4:10:02 AM

### GPC Results

<table>
<thead>
<tr>
<th>Retention Time</th>
<th>Adjusted RT</th>
<th>Mn</th>
<th>Mw</th>
<th>MP</th>
<th>Mz</th>
<th>Mz+1</th>
<th>Polydispersity</th>
<th>Baseline Start</th>
<th>Baseline End</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27.746</td>
<td>10115</td>
<td>10881</td>
<td>10264</td>
<td>11819</td>
<td>13030</td>
<td>1.075762</td>
<td>25.033</td>
<td>30.300</td>
</tr>
</tbody>
</table>

Slice Log MW
- dwt/d(logM)
- Cumulative %
Auto-Scaled Chromatogram

Sample Name: AJT3-34; Vial: 4; Injection: 1; Channel: 410; Date Acquired: 4/11/2009 10:29:07 PM

GPC Results

<table>
<thead>
<tr>
<th>Retention Time</th>
<th>Adjusted RT</th>
<th>Mn</th>
<th>Mw</th>
<th>Mp</th>
<th>Mz</th>
<th>Mz+1</th>
<th>Polydispersity</th>
<th>Baseline Start</th>
<th>Baseline End</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27.118</td>
<td>13472</td>
<td>14547</td>
<td>13327</td>
<td>15984</td>
<td>17940</td>
<td>1.079752</td>
<td>24.517</td>
<td>28.867</td>
</tr>
</tbody>
</table>

dwt/d(logM)

Cumulative %

Slice Log MW

15
**Fluorescence decays**

Decay profiles are fitted to a double exponential function with extracted lifetimes, pre-exponential weightings and chi-square fitting parameters provided in Table 1 of the paper.
Fluorescence decay of 1b

Counts vs. Time (ns)

Residuals

Counts vs. Time (ns)