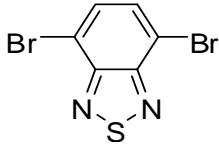
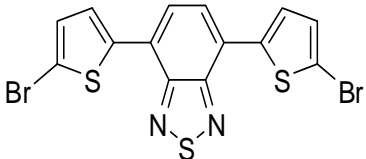
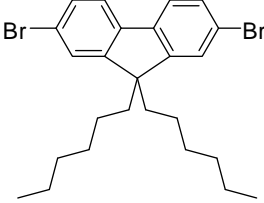
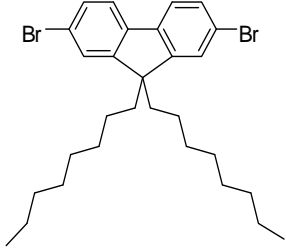
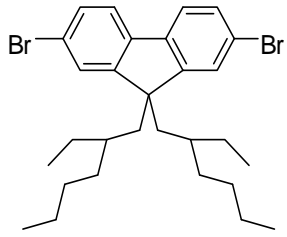
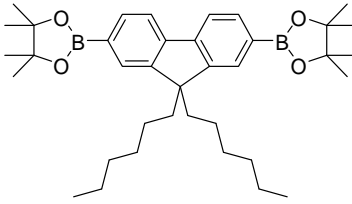
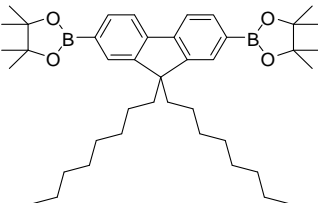
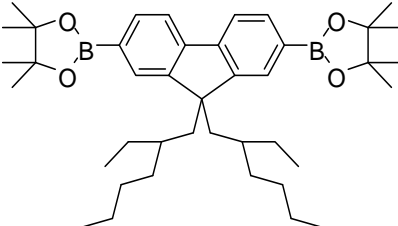
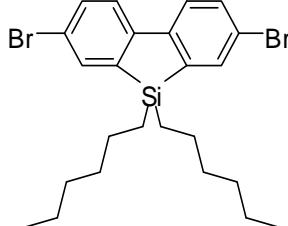
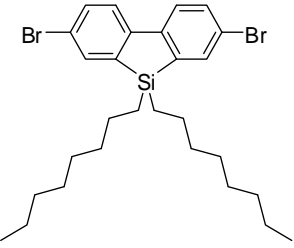
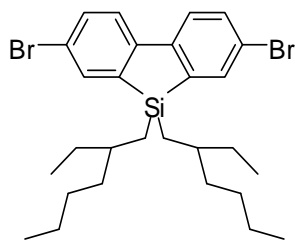
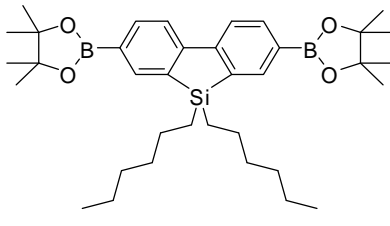
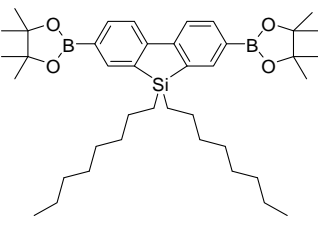
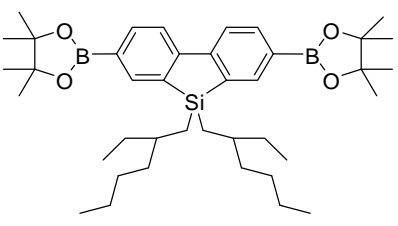
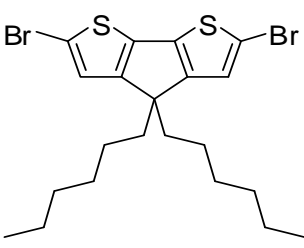
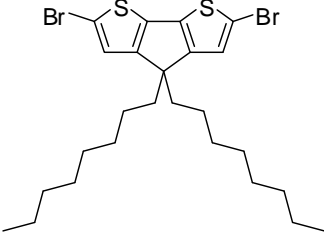
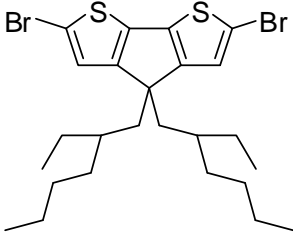
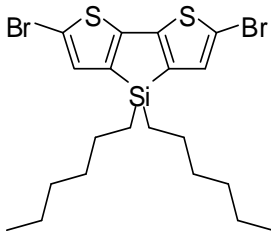
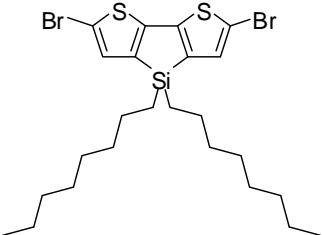
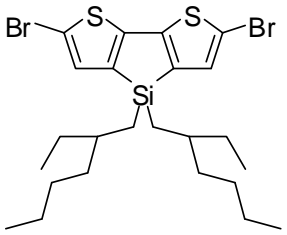
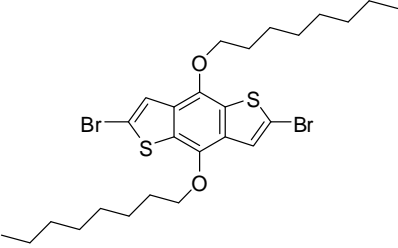
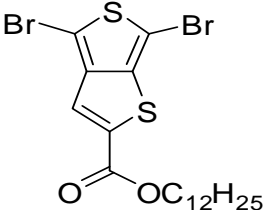
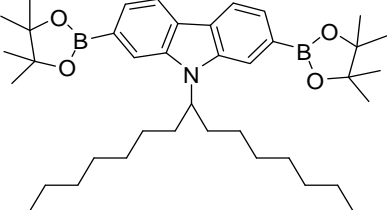
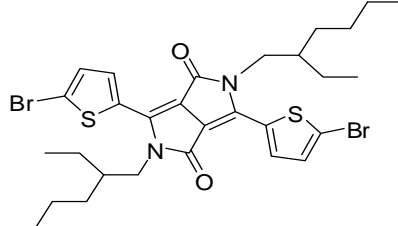
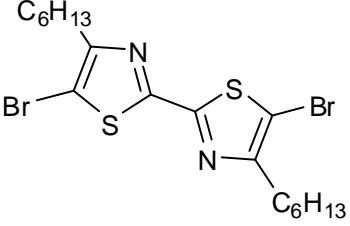
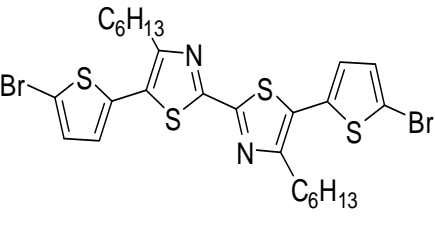
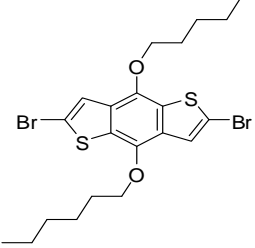
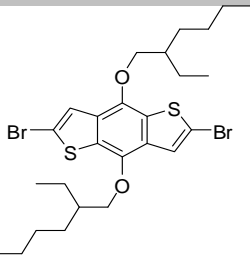
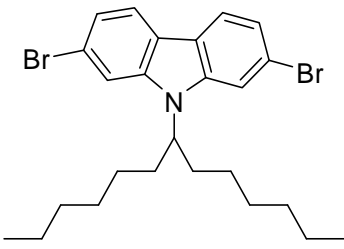
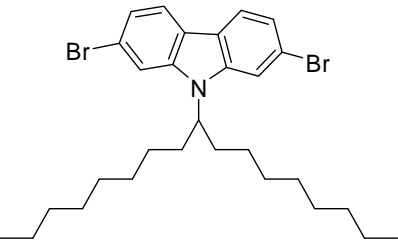
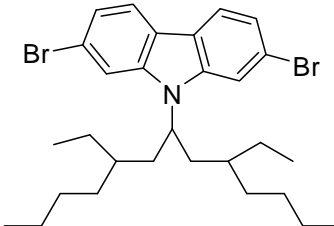
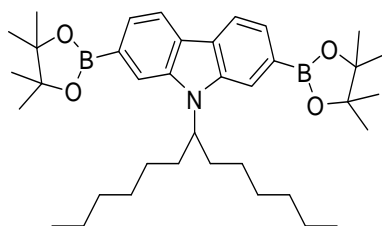
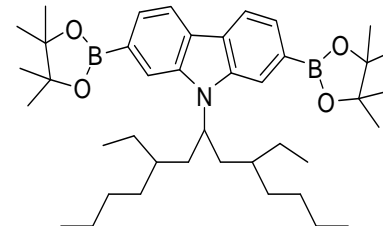
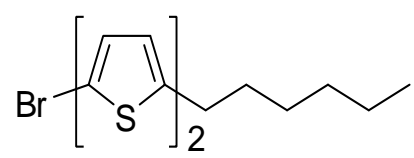
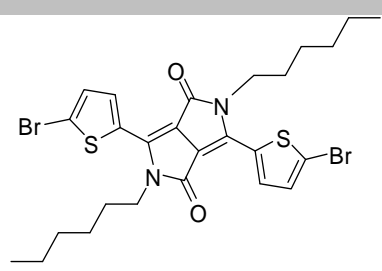
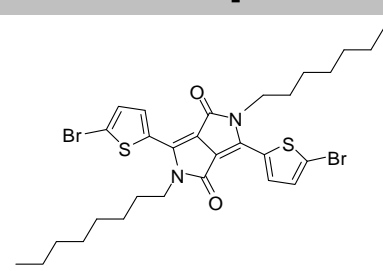
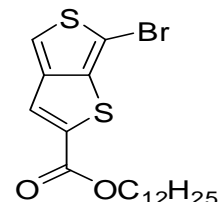
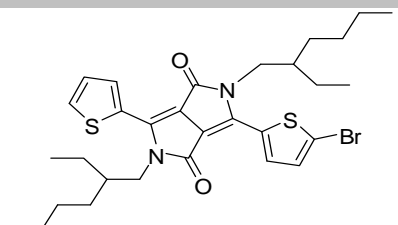
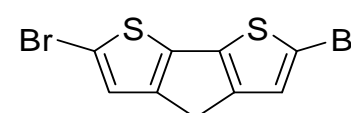
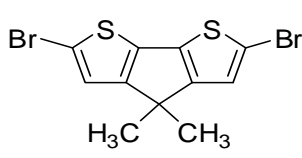
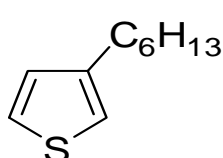
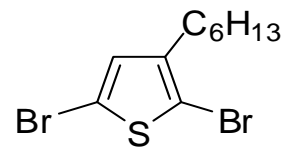
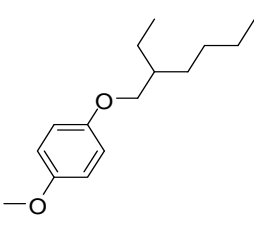
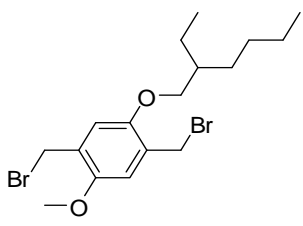
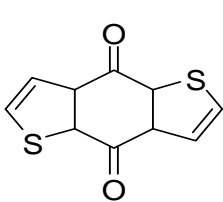
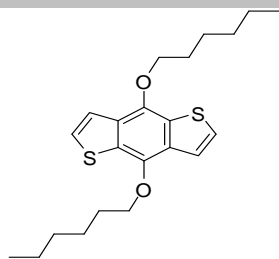


# OPV Intermediates

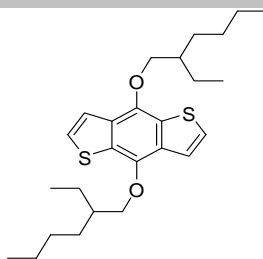
<p><b>K0092</b> [15155-41-6]</p>  <p>4,7-dibromobenzo[c][1,2,5]thiadiazole</p>	<p><b>K0094</b> [288071-87-4]</p>  <p>4,7-bis(5-bromothiophen-2-yl)benzo[c][1,2,5]thiadiazole</p>	<p><b>K0087</b> [189367-54-2]</p>  <p>2,7-dibromo-9,9-dihexyl-9H-fluorene</p>
<p><b>K0086</b> [198964-46-4]</p>  <p>2,7-dibromo-9,9-dioctyl-9H-fluorene</p>	<p><b>K0088</b> [188200-93-3]</p>  <p>2,7-dibromo-9,9-bis(2-ethylhexyl)-9H-fluorene</p>	<p><b>B1177</b> [254755-24-3]</p>  <p>2,2'-(9,9-dihexyl-9H-fluorene-2,7-diyl)bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolane)</p>
<p><b>B1178</b> [196207-58-6]</p>  <p>2,2'-(9,9-dioctyl-9H-fluorene-2,7-diyl)bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolane)</p>	<p><b>B1179</b> [357219-41-1]</p>  <p>2,2'-(9,9-bis(2-ethylhexyl)-9H-fluorene-2,7-diyl)bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolane)</p>	<p><b>K0095</b> [852138-90-0]</p>  <p>3,7-dibromo-5,5-dihexyl-5H-dibenzo[b,d]silole</p>
<p><b>K0096</b> [891182-24-4]</p>  <p>3,7-dibromo-5,5-dioctyl-5H-dibenzo[b,d]silole</p>	<p><b>K0097</b></p>  <p>3,7-dibromo-5,5-bis(2-ethylhexyl)-5H-dibenzo[b,d]silole</p>	<p><b>B1180</b> [852138-91-1]</p>  <p>5,5-dihexyl-3,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-5H-dibenzo[b,d]silole</p>
<p><b>B1181</b> [958293-23-7]</p>  <p>5,5-dioctyl-3,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-5H-dibenzo[b,d]silole</p>	<p><b>B1182</b></p>  <p>5,5-bis(2-ethylhexyl)-3,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-5H-dibenzo[b,d]silole</p>	<p><b>K0098</b> [528570-55-0]</p>  <p>2,6-Dibromo-4,4-dihexylcyclopenta[2,1-b:3,4-b']dithiophene</p>

<p><b>K0099</b> [478404-10-3]</p>  <p>2,6-Dibromo-4,4-dioctylcyclopenta[2,1-b:3,4-b']dithiophene</p>	<p><b>K0100</b> [365547-21-3]</p>  <p>2,6-Dibromo-4,4-bis(2-ethylhexyl)cyclopenta[2,1-b:3,4-b']dithiophene</p>	<p><b>K0101</b> [188690-66-6]</p>  <p>(4,4'-bis(2-hexyl)dithieno[3,2-b:2',3'-d]silole</p>
<p><b>K0102</b></p>  <p>(4,4'-bis(2-octyl)dithieno[3,2-b:2',3'-d]silole</p>	<p><b>K0103</b> [1089687-05-7]</p>  <p>(4,4'-bis(2-ethylhexyl)dithieno[3,2-b:2',3'-d]silole</p>	<p><b>K0104</b></p>  <p>2,6-dibromo-4,8-dioctyloxybenzo[1,2-b:4,5-b']dithiophene</p>
<p><b>K0105</b> [1098102-93-2]</p>  <p>dodecyl 4,6-dibromothieno[3,4-b]thiophene-2-carboxylate</p>	<p><b>B1183</b> [958261-51-3]</p>  <p>9-(heptadecan-9-yl)-2,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-9H-carbazole</p>	<p><b>K0106</b> [1000623-95-9]</p>  <p>3,6-bis(5-bromothiophen-2-yl)-2,5-bis(2-ethylhexyl)pyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione</p>
<p><b>K0107</b> [180729-93-5]</p>  <p>5,5'-dibromo-4,4'-dihexyl-2,2'-bithiazole</p>	<p><b>K0108</b> [853722-91-5]</p>  <p>5,5'-bis(5-bromothiophen-2-yl)-4,4'-dihexyl-2,2'-bithiazole</p>	<p><b>K0110</b> [359017-65-5]</p>  <p>2,6-dibromo-4,8-dihexyloxybenzo[1,2-b:4,5-b']dithiophene</p>
<p><b>K0111</b></p>  <p>2,6-dibromo-4,8-bis(2-ethylhexyloxy)benzo[1,2-b:4,5-b']dithiophene</p>	<p><b>K0112</b></p>  <p>2,7-dibromo-9-(tridecan-7-yl)-9H-carbazole</p>	<p><b>K0113</b> [955964-73-5]</p>  <p>2,7-dibromo-9-(heptadecan-9-yl)-9H-carbazole</p>

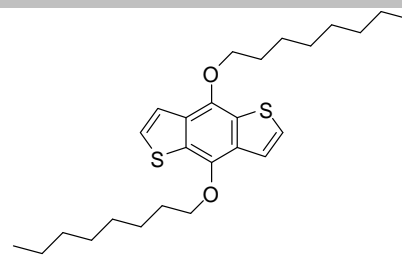
<p><b>K0114</b></p>  <p>2,7-dibromo-9-(5,9-diethyltridecan-7-yl)-9H-carbazole</p>	<p><b>B1184</b></p>  <p>2,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-9-(tridecan-7-yl)-9H-carbazole</p>	<p><b>B1185</b></p>  <p>9-(5,9-diethyltridecan-7-yl)-2,7-bis(4,4,5,5-tetramethyl-1,3,2-dioxaborolan-2-yl)-9H-carbazole</p>
<p><b>K0115</b></p>  <p>5-bromo-5'-hexyl-2,2'-bithiophene</p>	<p><b>K0116</b></p>  <p>3,6-bis(5-bromothiophen-2-yl)-2,5-dihexylpyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione</p>	<p><b>K0117</b> [1057401-13-4]</p>  <p>3,6-bis(5-bromothiophen-2-yl)-2,5-dioctylpyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione</p>
<p><b>K0121</b></p>  <p>dodecyl 6-bromothieno[3,4-b]thiophene-2-carboxylate</p>	<p><b>K0122</b></p>  <p>3-(5-bromothiophen-2-yl)-2,5-bis(2-ethylhexyl)-6-(thiophen-2-yl)pyrrolo[3,4-c]pyrrole-1,4(2H,5H)-dione</p>	<p><b>K0123</b></p>  <p>2,6-Dibromo-4H-Cyclopenta[2,1-b:3,4-b']dithiophene</p>
<p><b>K0124</b></p>  <p>2,6-Dibromo-4,4-dimethylcyclopenta[2,1-b:3,4-b']dithiophene</p>	<p><b>K0127</b> [1693-86-3]</p>  <p>3-hexylthiophene</p>	<p><b>K0132</b> [116971-11-0]</p>  <p>2,5-dibromo-3-hexylthiophene</p>
<p><b>K0090</b></p>  <p>1-(2-ethylhexyloxy)-4-methoxybenzene</p>	<p><b>K0091</b></p>  <p>1,4-bis(bromomethyl)-2-(2-ethylhexyloxy)-5-methoxybenzene</p>	<p><b>K0140</b></p>  <p>4,8-Dihydrobenzo[1,2-b:4,5-b']dithiophen-4,8-dione</p>

**K0212**

4,8-dihexyloxybenzo[1,2-b:4,5-b']dithiophene

**K0213**

4,8-Bis(2-ethylhexyloxy) benzo[1,2-b:4,5-b']dithiophene

**K0214**

4,8-dioctyloxybenzo[1,2-b:4,5-b']dithiophene