

Technical Report

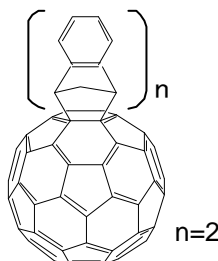
Indene-C₆₀ adducts "nanom[®] spectra Q100, Q400,"

Frontier Carbon Corporation have succeeded in consistent production of Indene-C₆₀ monoadduct, nanom[®] spectra Q100 and Indene-C₆₀ bisadduct, nanom[®] spectra Q400, for OPV application. The OPV based on Indene adducts was reported to show higher open-circuit voltage than that of OPV based on [60]PCBM^{*1}.

Please try our Indene-C₆₀ adducts, **nanom[®] spectra Q100 & Q400 !**



nanom[®] spectra Q100
Indene-C₆₀ monoadduct



Mixture of isomers
nanom[®] spectra Q400
Indene-C₆₀ bisadduct

	nanom [®] spectra	
Grade Name	Q100	Q400
Molecular Formula	C ₆₉ H ₈	C ₇₈ H ₁₆
Molecular Weight	836.80	952.96
Purity*	99 A%	99 A%

*The data is typical value by HPLC analysis.

Solubility

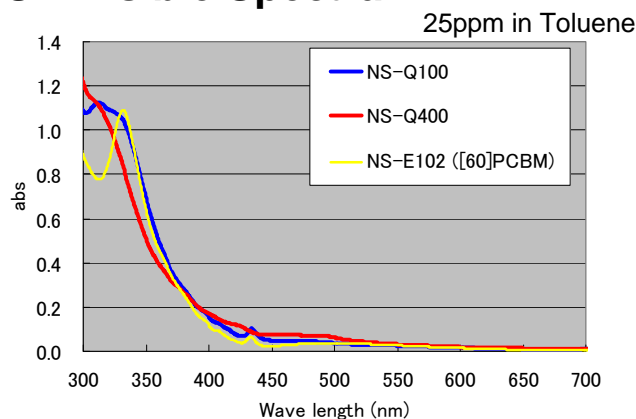
Solvent	NS-Q100 (mono)	NS-Q400 (bis)	NS-E102 ([60]PCBM)
Toluene	0.4wt%	10wt%	1wt%

1st Reduction Potential

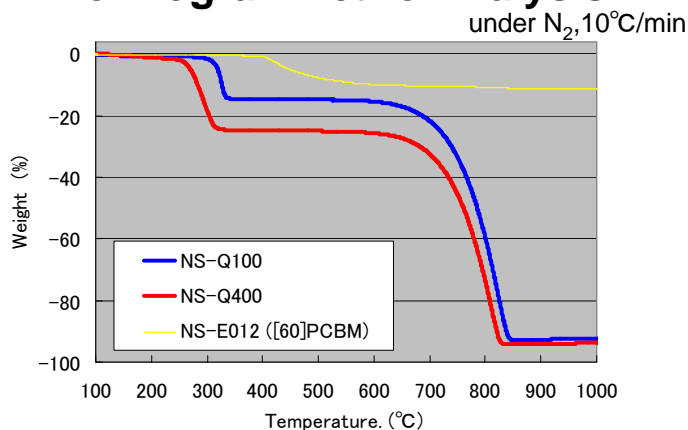
	NS-Q100 (mono)	NS-Q400 (bis)
E ^{1/2}	-1.13V	-1.26V
	NS-E102 ([60]PCBM)	NS-E400 (bis[60]PCBM)
E ^{1/2}	-1.09V	-1.19V

Potential in volts vs Fc/Fc+ measured with CV in 4:1 o-Dichlorobenzene-Acetonitrile(v/v) containing TBAP(0.1M) as a supporting electrolyte. GC, Pt wire, and Ag/Ag+ electrodes, respectively.

UV-Visible Spectra



Thermogravimetric Analysis



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*1References

- *J. Am. Chem. Soc.*, **2010**, 132(4), pp1377-1382
- WO2008/018931

