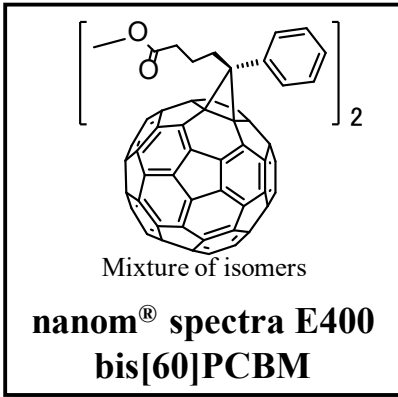


# Technical Report

## bis[60]PCBM "nanom<sup>®</sup> spectra E400"

フロンティアカーボン(株)は、原材料からの一貫メーカーである強みを活かし、有機薄膜太陽電池用フラーレン誘導体bis[60]PCBMの安定生産に成功いたしました。開放電圧の向上等の報告\*<sup>1</sup>がされている高性能n型半導体nanom<sup>®</sup> spectra E400にご期待下さい。



- **Grade Name** : nanom<sup>®</sup> spectra E400
  - **Common Name** : bis[60]PCBM
  - **CAS Number** : 1048679-01-1
  - **Molecular Formula** : C<sub>84</sub>H<sub>28</sub>O<sub>4</sub>
  - **Molecular Weight** : 1101.1
  - **Purity** : >98.0A% by HPLC analysis
- \*PCBM: Phenyl C61-butyric acid methyl ester

\*The data is typical value.

### Solubility

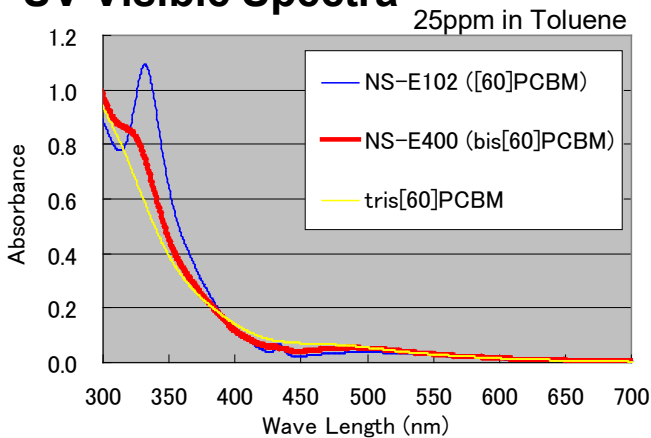
Solvent	NS-E400 (bis[60]PDBM)	NS-E102 ([60]PCBM)
Toluene	> 10wt%	1wt%

### 1<sup>st</sup> Reduction Potential

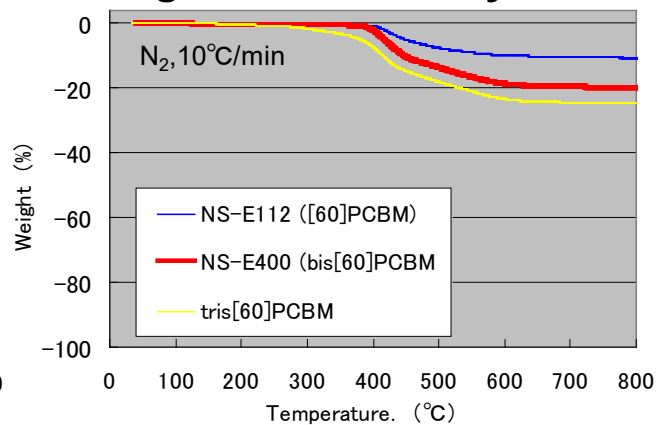
	NS-E400 (bis[60]PDBM)	NS-E102 ([60]PCBM)
E <sup>1/2</sup>	-1.19V	-1.09V

Potential in volts vs Fc/Fc<sup>+</sup> 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<sup>+</sup> electrodes, respectively.

### UV-Visible Spectra



### Thermogravimetric Analysis



\*<sup>1</sup>References

- *Adv.Mater.* **2008**,20(11),2116-2119
- *J.Phys.Chem.C* **2010**,114, 9062-9069

お問い合わせ先 : <http://www.f-carbon.com/contact.html>  
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 URL : <http://www.f-carbon.com>

