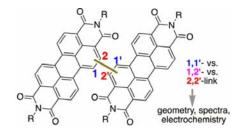


## 1-Material Inc

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Organic Nano Electronic(ONE=1)materials for these who understand quality



Perylene diimides(PDIs) have attracted interest as dyes and pigments, electron-transporting semiconductors in organic field-effect transistors, two-photon-absorbing chromophores, fluorophores, and acceptors in photoinduced electron-transfer reactions for both fundamental studies and optical limiting. They have also been extensively used as light-harvesting electron-transporting materials in organic solar cells because of their comparable electron affinities to fullerenes, excellent photochemical stability, tunable electronic structure and properties. *ACS Omega*, 2017, 2 (2), pp 377–385

Listing	Common Name	Structure	Reference
No.	CAS No.		and Remarks
OS0444	P-PDI-OMe CAS: NA	H <sub>11</sub> C <sub>5</sub> N-N	O C <sub>5</sub> H <sub>11</sub>
	Not yet reported	H <sub>11</sub> C <sub>5</sub> '	C₅H <sub>11</sub>
OS0044	<b>P-PDI</b> CAS# 1706546-04-4	C <sub>5</sub> H <sub>11</sub> N-N	O C <sub>6</sub> H <sub>11</sub> C <sub>8</sub> H <sub>11</sub>
OS0783	<b>di-PDI</b> CAS#1609131-78-3	C <sub>6</sub> H <sub>11</sub> C <sub>6</sub> C <sub>11</sub>	Chem. Communications, 2014, 50(8), 1024 EA(eV) = 4.04, IP(eV)=6.13 HOMO(eV) = -6.1; LUMO(eV)=-4.0
		CsH11 CsH11	Active layer: PCE-10/di-PDI PCE = $5.9\%$ $V_{OC}(V)=0.80$ ; $J_{SC}(mA/cm^2)=12.0$ ; FF = $0.59$
OS0696	SF-PDI CAS# 1643842-69-6	CeHis CeHis CeHis	Energy Environ.Sci., 2015, 8, 520 EA(eV) = 3.83, IP(eV)=5.90 HOMO(eV) = -5.9; LUMO(eV)=-3.8
		Celtis Celtis	Active layer: PCE-11/SF-PDI PCE = 6.3% V <sub>OC</sub> (V)=0.98; J <sub>SC</sub> (mA/cm <sup>2</sup> )=10.7; FF = 0.57
OS0692	PDI-2T CAS#1189046-69-2	H <sub>11</sub> C <sub>9</sub> C <sub>9</sub> H <sub>11</sub>	Polymer, <b>51</b> (11), 2010, 2264
			PDI-2T:P3HT=1:1
		H11C9 C9H11	-0.5 0.1 0.2 0.3 0.4 0.5 Energy (eV)

Other PDI-Materials may be also available and custom made, please contact info@1-material.com for your needs.