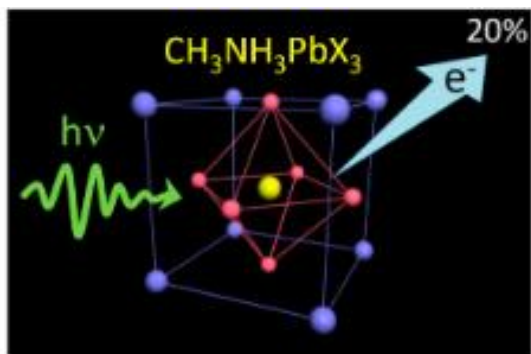


# Perovskite Hybrid Solar Cell



## 1-Material Inc

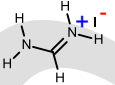
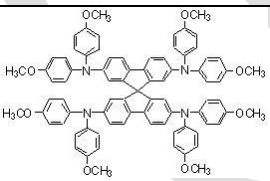
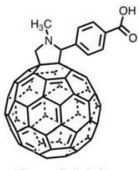
2290 Chemin St-Francois  
Dorval, Quebec  
H9P 1K2, Canada



Perovskite sensitizer made a breakthrough in solid-state mesoscopic solar cells, where the first record efficiency of ~10% was reported in 2012 using submicrometer-thick TiO<sub>2</sub> film sensitized with **CH<sub>3</sub>NH<sub>3</sub>PbI<sub>3</sub>**. A rapid increase in efficiency over 16% followed shortly. On the basis of the recent achievements, a power conversion efficiency as high as 20% is expected based on optimized perovskite-based solid-state solar cells.

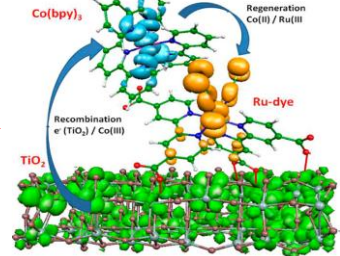
Ref: J. Phy. Chem. Lett. (2013), 4(15), 2423

### 1-Materials for your further advancement in PEROVSKITE Hybrid Solar Cell

Formula/Structure	CAS No.	Chemical Name	Specification	1M No.
CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub>	69507-98-8	Methylammonium lead-iodide	Black powder Yellow solution -40% $\gamma$ -butyrolactone	OS0998 OS0998-40
CH <sub>3</sub> NH <sub>3</sub> I	14965-49-2	Methylammonium iodide <b>(MAI)</b>	Crystal	IT0492
CH <sub>3</sub> NH <sub>3</sub> Br	6876-37-5	Methylammonium bromide	White flake	IT0375
	879643-71-7	Formamidinium iodide <b>(FAI)</b>	White Powder	IT0717
CH <sub>3</sub> NH <sub>3</sub> SnI <sub>3</sub>	67908-87-6	Methylammonium tin triiodide	Yellow powder	OS0876
	207739-72-8	<b>Spiro-OMeTAD</b> 2,2',7,7'-Tetrakis[N,N-di(4-methoxyphenyl)amino]-9,9'-spirobifluorene	Light yellow crystal 99.5%	HT0728
 C <sub>60</sub> -SAM	631918-72-4	C60-SAM Self-Assembly Material for organic electronic devices	Brown powder 99.9%	OS0724

For more information, please contact: [info@1-material.com](mailto:info@1-material.com)

# Perovskite Hybrid Solar Cell



## Cobalt Complexes and DSSC Dyes

Structure	Specification	Common Name	IM No.
	99%	<b>FK102Co(III) TFSI salt</b>	OS1033
	99%	<b>FK102Co(II) TFSI salt</b>	OS1022
	99%	<b>FK209</b>	OS0615
	99%	<b>FK269</b>	OS0637
	98%	<b>Z-907(dye)</b> <b>Ruthenium 520DN</b> <b>CAS# 502693-09-6</b>	OS0096
	98%	<b>N719 (dye)</b> <b>CAS# 207347-46-4</b>	OS0464
		<b>TG-6</b> <b>TG6</b>	OS0233