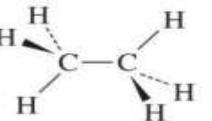
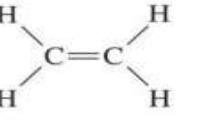


### 3. Principles to Plasma Surface Activation Treatment

#### 3.5 Cleaning process (organic contamination etc)

#### Cleaning process (evaporation and pure gas flow etc)

##### Organic materials binding energy (3 ~ 12eV)

Organic




단일결합	kJ/mol	eV
C-H	413	4.28
C-C	348	3.61
C-N	293	3.04
C-O	358	3.71
C-F	485	5.03
C-Cl	328	3.40
C-Br	276	2.86
C-I	240	2.49
C-S	259	2.68
이중/삼중결합	kJ/mol	eV
C=C	614	6.36
C=-C	839	8.70
C=N	615	6.37
C=-N	891	9.23
C=O	799	8.28
C=-O	1072	11.11

Chemical bond	Energy/eV	Chemical bond	Energy/eV
H-CH <sub>3</sub>	4.5	H-OC <sub>6</sub> H <sub>5</sub>	3.8
H-C <sub>2</sub> H <sub>5</sub>	4.2	CH≡CH	10.0
H-CHCH <sub>2</sub>	4.7	CH <sub>2</sub> =CH <sub>2</sub>	7.5
H-CCH	5.0	CH <sub>3</sub> -C <sub>6</sub> H <sub>5</sub>	4.3
H-C <sub>6</sub> H <sub>5</sub>	4.8	CH <sub>3</sub> -CN	5.4
H-CH <sub>2</sub> C <sub>6</sub> H <sub>5</sub>	3.7	CH <sub>3</sub> -OH	3.9
H-CH <sub>2</sub> OH	4.1	CH <sub>3</sub> -Cl	3.6
H-CH <sub>2</sub> COCH <sub>3</sub>	4.3	CH <sub>3</sub> -I	2.4
H-OCH <sub>3</sub>	4.5	H-OC <sub>6</sub> H <sub>5</sub>	3.8
C <sub>6</sub> H <sub>5</sub> -Cl	4.1		