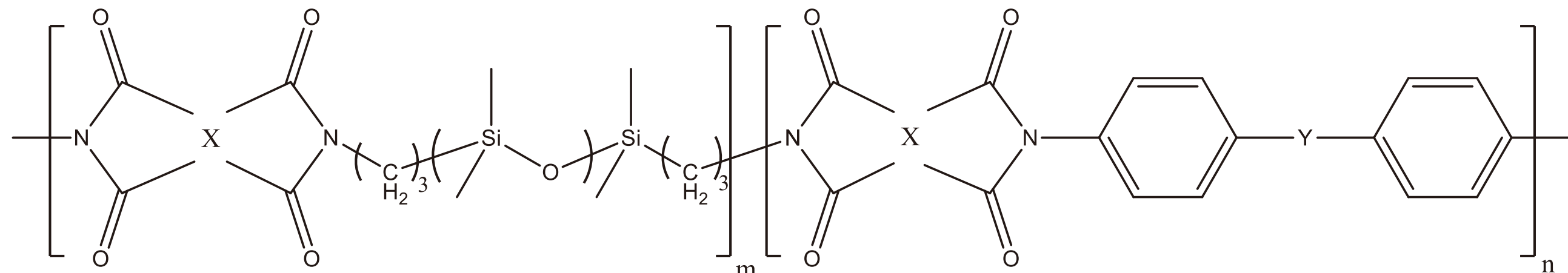


## Atomic-Oxygen Tolerant Film

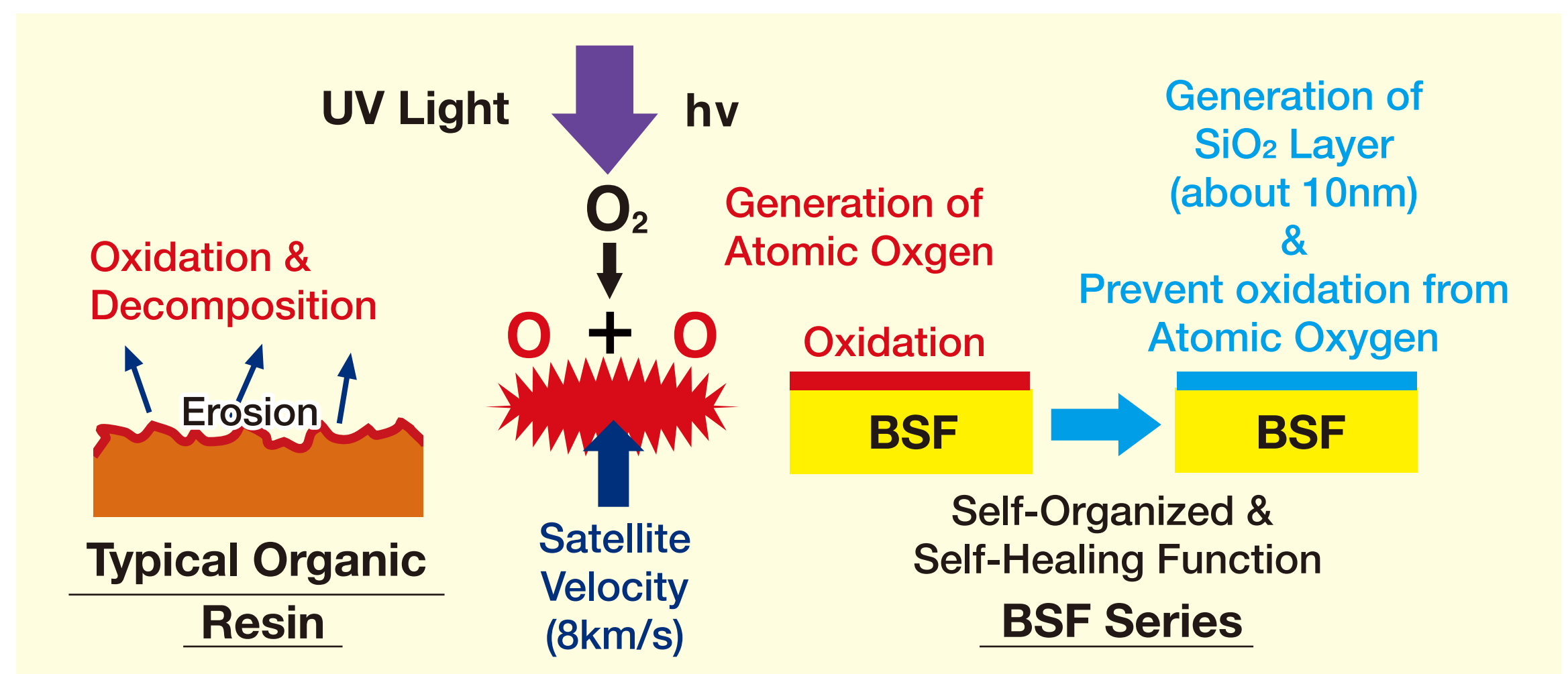
# Siloxane Block Polyimide BSF series

for LOW and Very LOW EARTH ORBIT SATELLITE

### Typical Molecular Structure



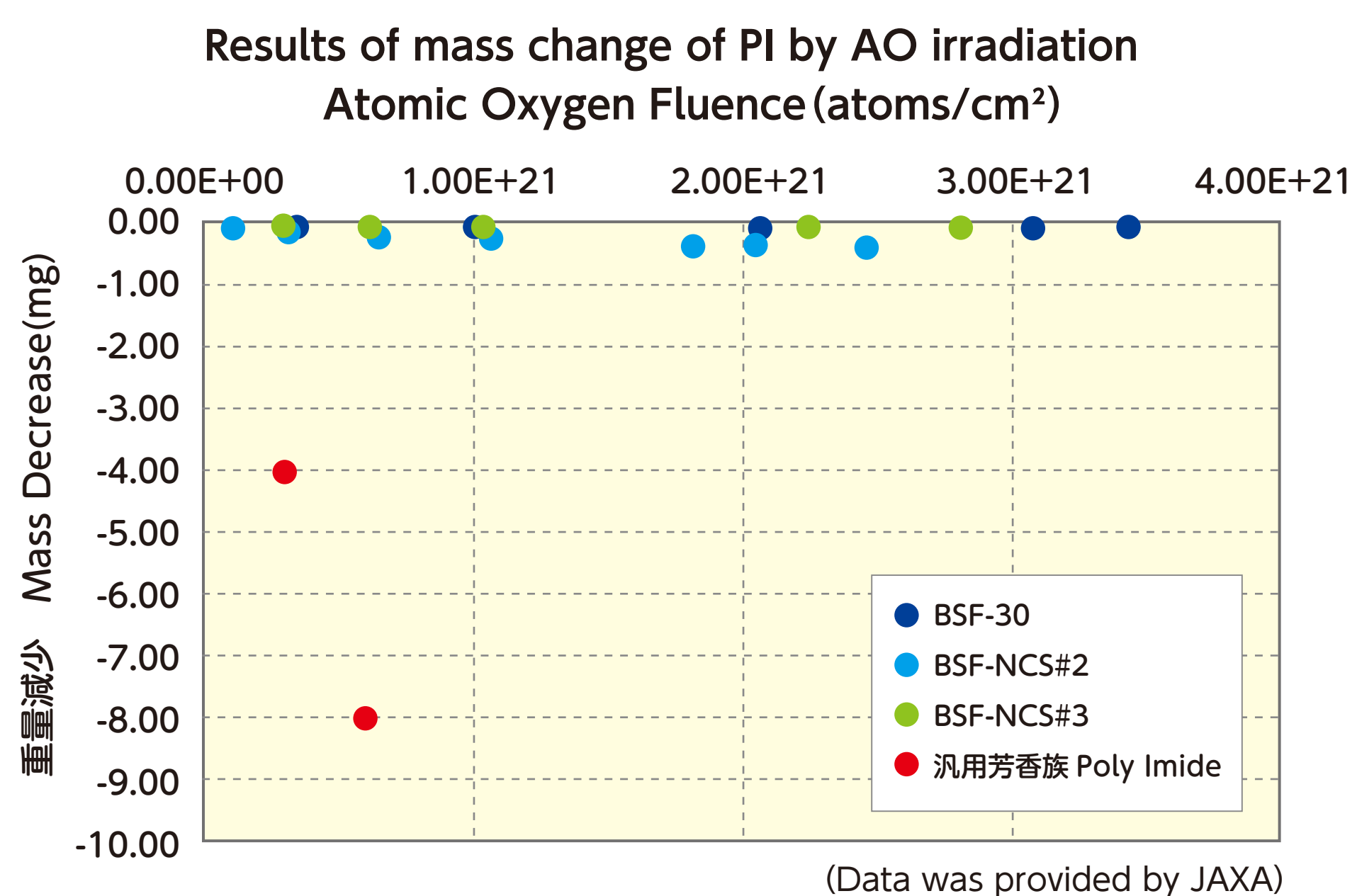
### Atomic-Oxygen Tolerant Mechanism



### Typical Properties

Item	unit	BSF-30	BSF-NCS#2	BSF-NCS#3
Glass transition temp (Tg)	℃	187	176	140
5% Thermal decomposition (Td5)	℃	456	462	456
coefficient of thermal expansion (CTE)	ppm/K	100	68	92
Young's Modulus	GPa	1.4	1.9	1.7
Elongation	%	15	11	45
Tensile Strength	MPa	53	87	59
Cyclic silicone Outgassing component	—	Contain	None	None

### Atomic-Oxygen Tolerant Test Results



### Exposure Tests



Exposure test of BSF-30 on the ISS “KIBO” for 8.5 months.

Before Flight



After Flight



The color change of BSF-30 was caused by UV light, but there was not the erosion by AO.

