

CVD/ALD process monitoring system (2)
(The evaluation of a precursor using FT-IR spectroscopy, thermal analysis, and the deposition chamber)

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The evaluation of a precursor is the most important to researchers and engineers using or synthesizing the novel precursors. So, we may furnish the evaluated data made by so many tools such as Fourier transform infrared (FT-IR) spectroscopy, thermal analysis, and the deposition chamber. In-situ FT-IR spectroscopy was used to study the surface and gas phase reaction and mechanism of the system of atomic layer deposition and chemical vapor deposition. The thermal analysis such as thermogravimetric analysis (TGA) & differential scanning calorimetry (DSC) is used to be measuring the properties of decomposition and evaporation in the inert gas or reactive gas ambient. The data evaluated will be compared with the characteristics of deposition such as deposition rate, deposition window, the activation energy of mass transfer and surface reaction limited region, etc.