

## **Imaging Molecular Processes in Living Cells**

○Moritoshi Sato

(Dept. Chem., Univ. Tokyo)

Fluorescence imaging could be the most powerful technique available for observing spatial and temporal dynamics of biomolecules in living cells, if fluorescent indicators for the relevant biomolecules become available. We have recently developed fluorescent indicators for a variety of second messengers or protein phosphorylations. Using the indicators, we have visualizes spatial and temporal dynamics of these molecular events in single living cells. The present fluorescent indicators are becoming an indispensable tool for understanding the complex mechanism of the signal transduction in living cells. In this symposium, I present several examples of indicators to visualize the molecular processes in single living cells.