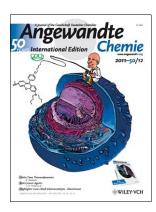


## **Cover Picture**

Yun Kyung Kim, Jun-Seok Lee, Xuezhi Bi, Hyung-Ho Ha, Shin Hui Ng, Young-hoon Ahn, Jae-Jung Lee, Bridget K. Wagner, Paul A. Clemons, and Young-Tae Chang\*

A living cell is composed of highly ordered structures in which small-molecule localization is controlled by chemical properties. Because of these intracellular barriers, binding proteins identified in in vitro experiments may not show the same effective binding in living cells. In their Communication on page 2761 ff., Y. T. Chang et al. describe a rosamine fluorophore that strongly binds to a cytosolic protein in vitro; however, when applied to living cells, it predominantly labels a mitochondrial protein.



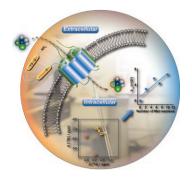


## Finite-Time Thermodynamics

In his Review on page 2690 ff., B. Andresen describes the concept of finite-time thermodynamics, which can be applied not only to optimize chemical and industrial processes but also, when appropriate variables are replaced, to solve economic and possibly even ecological problems.

## Drug-Protein Adducts

In their Communication on page 2706 ff., H. Sun et al. describe how the kinetics and activation of cisplatin are affected by the overexpressed extracellular domain of human copper transporter and its mutants.





## Carbon Nanotubes

In their Communication on page 2764 ff., S. Cambré and W. Wenseleers use density-gradient ultracentrifugation to separate empty (end-capped) and water-filled (open) carbon nanotubes. The separated tubes can be further sorted by diameter in one centrifugation run.