

## Regulated Optical Properties of Single-walled Carbon Nanotubes via Redox Reaction

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Carbon nanotubes (CNTs) have been in the forefront of nanoscience and nanotechnology because of their many unique properties. However, their insolubility in solvents has hindered chemical approaches using CNTs. We have reported the fundamental properties and applications of soluble carbon nanotubes in aqueous and organic systems<sup>1-3</sup>. Individually dissolved CNTs show the inherent properties of the CNTs that are not seen in bundled ones.

Single walled carbon nanotubes (SWNTs) exhibit interesting optical properties via redox reactions<sup>4-6</sup>. Here, we report the finding that near IR absorption and photoluminescence spectra of individually dissolved SWNTs in aqueous micellar solution are regulated by the addition of a chemical reducing agent. The details will be reported at the presentation.

### References

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