

Development of New Materials for Unprecedented Technology

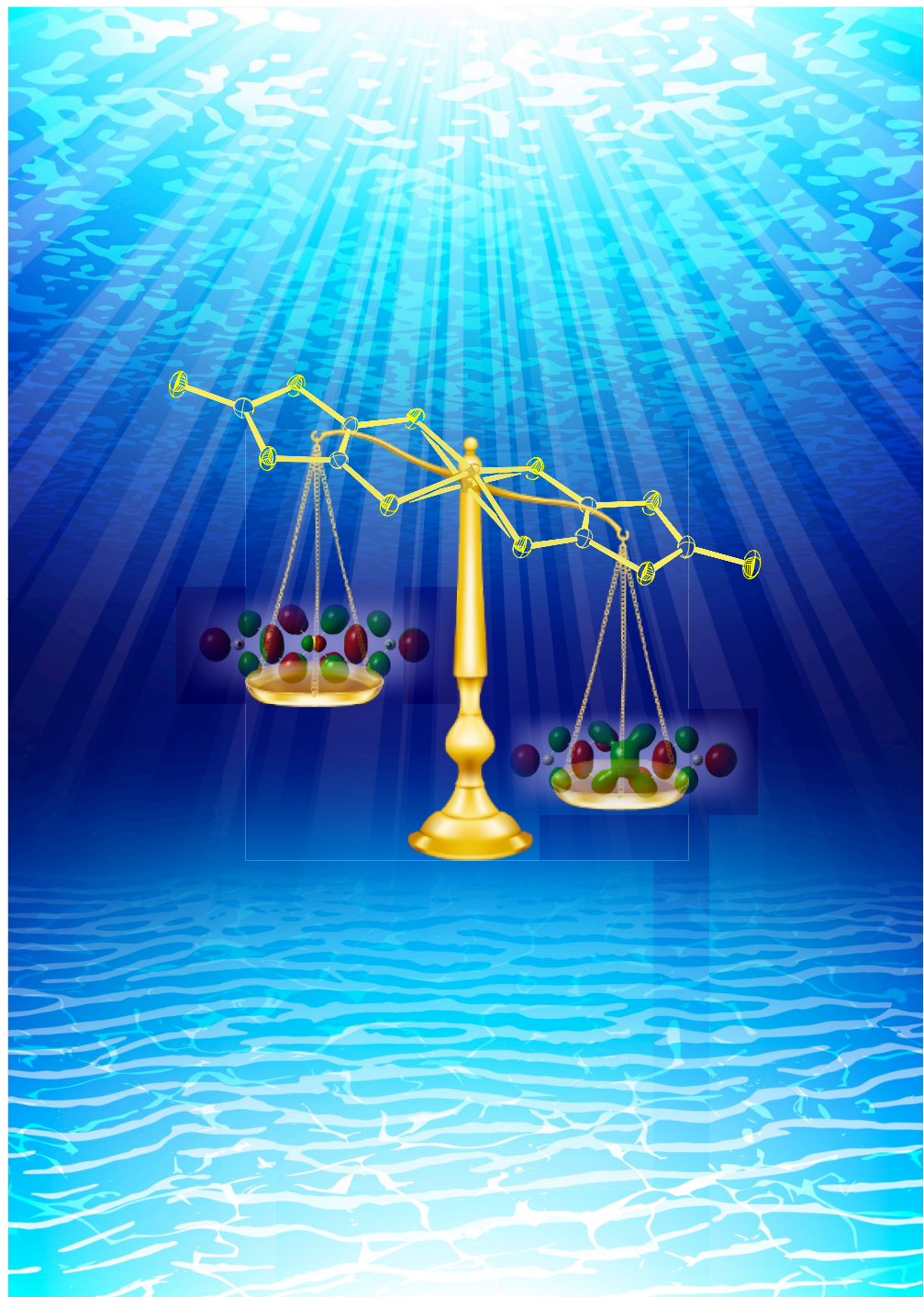
“Photon Storage”

—— the only-one technique
from Ehime University ——

Graduate School of Science &
Engineering

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【Figure】 Selected and Featured for Cover Art
(Dalton Transactions) (July 16, 2019)



What is Photon Storage*?

- Storing the light (photon itself or its energy) in a material
- From Radiation Shielding to Computing using photons instead of electrons; various ways of application expected

* Conceived and Named by Prof. Naito

【Papers】 T. Naito *et al.*, *Dalton Transactions*, 48, pp. 12858—12866 (2019), etc
【Japanese Patent】 2019-18868, 2021-202580

What is the **Point** of Photon Storage?*

- Low thermal energy loss & evolution of heat
- Portable “light and energy source” without electricity

Could it possible that electrons should be replaced by photons in ICT technology for higher performance, lower energy consumption, and smaller weight?

* Current status concerning photons: wireless communication, sensors, remote control, ...
However, there is no way/material/device to store the photons.