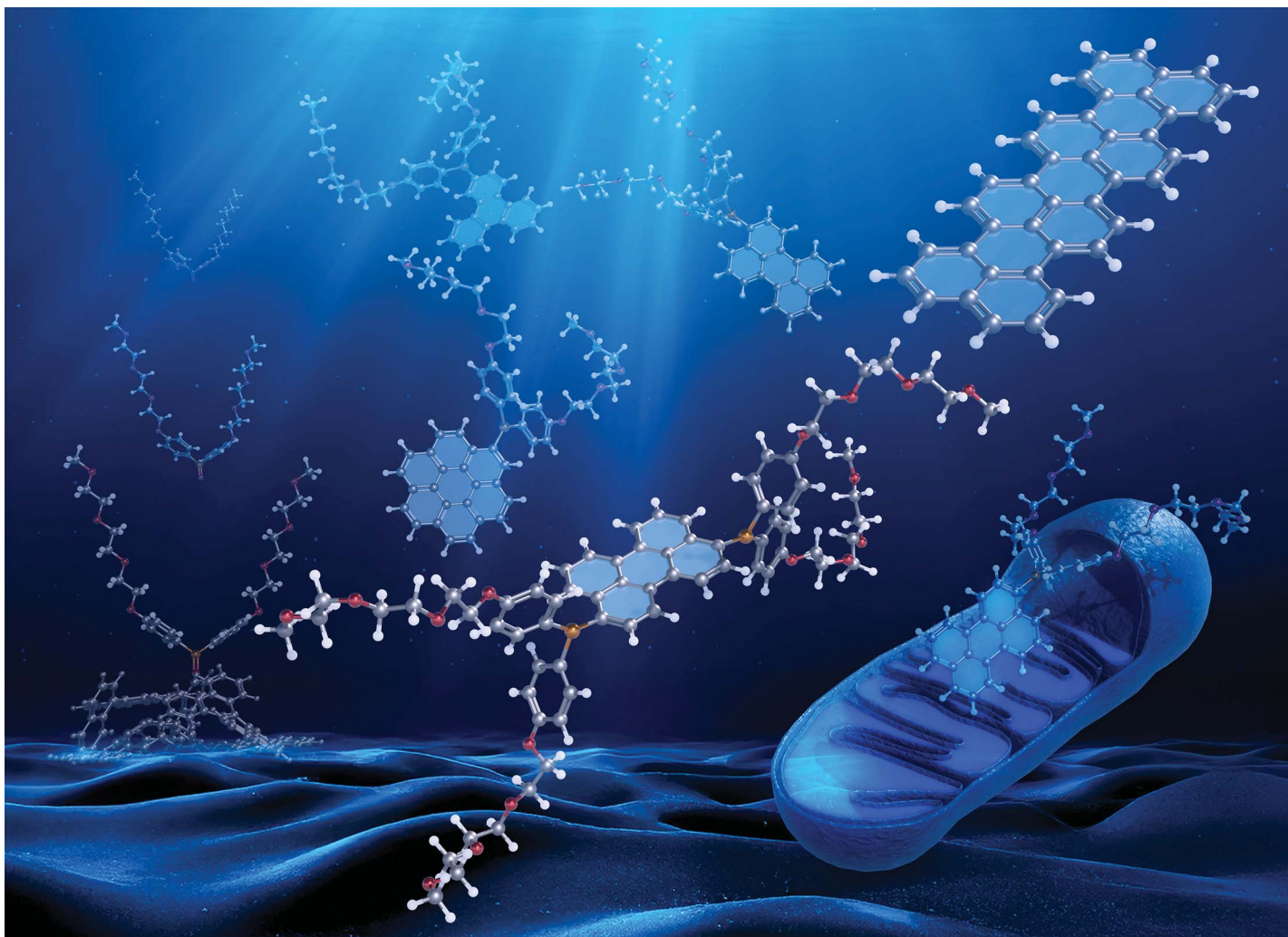


# EES Batteries

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Showcasing research from Dr. Amaike, Prof. Itami,  
Prof. Ito's group, Nagoya University and RIKEN, Japan.

Functionalization and solubilization of polycyclic aromatic  
compounds by sulfoniumization

The image shows the attachment of solubilizing diaryl sulfoxide to poorly soluble polycyclic aromatic hydrocarbons (PAHs) by C–H sulfoniumization. Thus-formed PAH-sulfonium salts show good solubility in organic solvents/water, are capable of further transformations such as cross-coupling and nanographene synthesis. Furthermore, a perylene-sulfonium salt shows mitochondria-selective fluorescence staining in HeLa cell.

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The artwork was created by Dr. Issey Takahashi in Nagoya University.

As featured in:



See Kazuma Amaike, Kenichiro Itami, Hideto Ito *et al.*, *Chem. Sci.*, 2025, **16**, 8262.