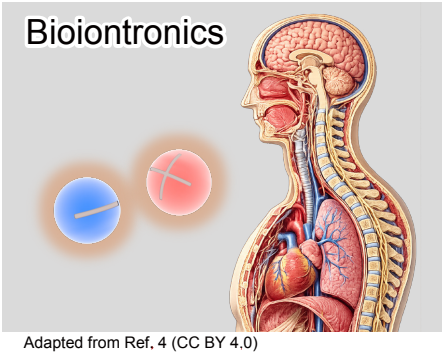
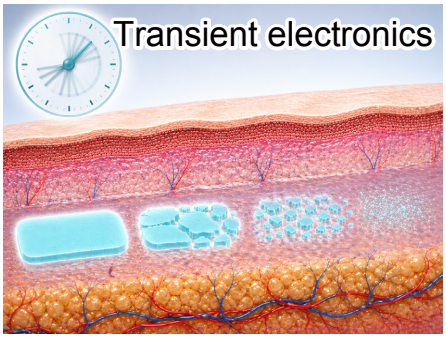
Bioiontronics

Translating ionic devices into healthcare, wearables, and transient electronics.

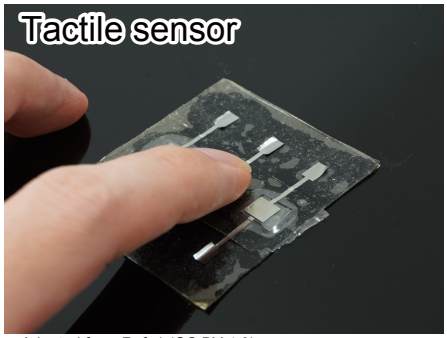




Adapted from Ref. 4 (CC BY 4.0)

Soft Ionic Devices

Creating bioelectronic devices enabled by functional ionic materials.



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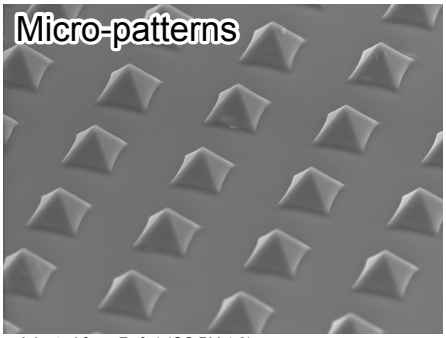

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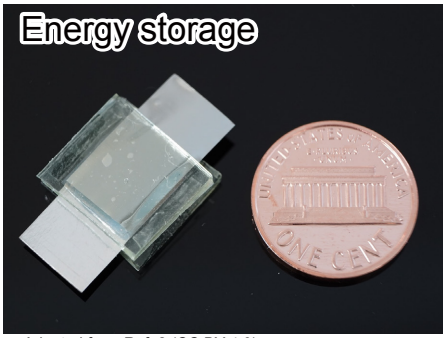
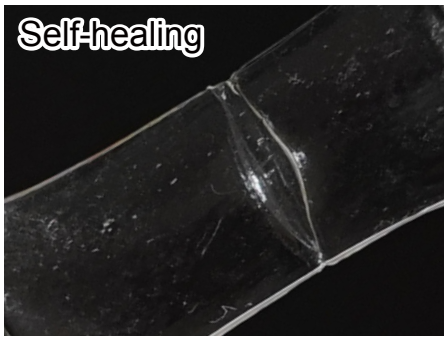
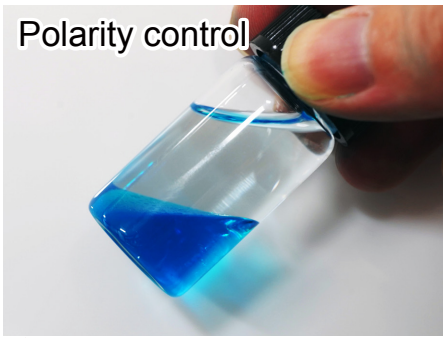


Adapted from Ref. 2 (CC BY 4.0)

Functional Ionic Materials

Engineering ionic materials through molecular design.

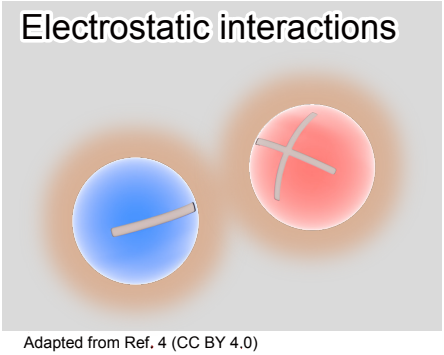




Adapted from Ref. 3 (CC BY 4.0)

Intermolecular Interaction Design

Programming material properties through molecular interactions.



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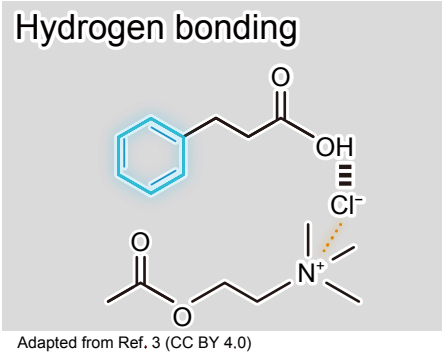

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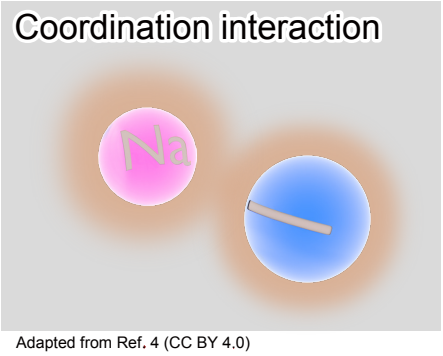

Adapted from Ref. 4 (CC BY 4.0)

[1] S. Yamada, M. S. Al Farisi, M. Kumemura, A. Hermawan, and T. Honda, ACS Materials Au, vol. 5, no. 6, pp. 1029–1036, 2025.
[2] S. Yamada, M. S. Al Farisi, M. Kumemura, A. Hermawan, and T. Honda,ACS Applied Materials & Interfaces, vol. 16, no. 12, pp. 14759–14769, 2024.
[3] S. Yamada and T. Honda, ACS Materials Au, 2026.
[4] S. Yamada and T. Honda, ACS Applied Materials & Interfaces, vol. 17, no. 35, pp. 40845–40854, 2025.