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Publications

PUBLICATIONS

- **Localized Thermomechanical Measurements of Polymers and Blends with AFM-IR.** *Small (Weinheim an der Bergstrasse, Germany)*
Lim, C. Y., Bao, Z., Michalek, L.
2026: e14518
- **A guide for nanomechanical characterization of soft matter via AFM: From mode selection to data reporting.** *STAR protocols*
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2025; 6 (2): 103809
- **Solution-state nanoconfined aggregation and microstructure evolution in blends of conjugated polymers and elastomers.** *Proceedings of the National Academy of Sciences of the United States of America*
Peña-Alcántara, A. E., Ghasemi, M., Cheng, C., Chaney, T. P., Coffey, A. H., Ponte, E., Ji, X., Michalek, L., Wu, Y., Schrock, M., Ngaruka, G., Gala, M. L., Zhu, et al
2026; 123 (18): e2516186123
- **Intrinsically stretchable complementary circuits based on direct photo-patternable polymer semiconductors** *NATURE ELECTRONICS*
Liu, Q., Zheng, Y., Wu, H., Michalek, L., Ronchini, M., Mow, R. K., Wang, W., Park, H., Ji, X., Yu, Z., Yao, Z., Nishio, Y., Zhao, et al
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- **Photolyzable Polymer Brushes: Subtractive 3D Structuring of Surfaces Using Water and Light.** *Angewandte Chemie (International ed. in English)*
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- **Ultrasensitive soft vibration sensors based on atomically thin metal dichalcogenide ribbon networks.** *Science advances*
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- **Field-Responsive Dynamic Monolayer Regulated Interphase for Enhanced Lithium Metal Batteries.** *Journal of the American Chemical Society*
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2026
- **Temperature-Controlled Phase Separation Behavior of Conjugated Polymer:Elastomer Blends of PffBT4T-2OD and SEBS** *ACS APPLIED ELECTRONIC MATERIALS*
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2026
- **Stabilizing All-Solid-State Li-S Batteries by a Polysulfide-Repelling and Anode-Protecting Self-Segregated Trilayer Polymer Electrolyte.** *Journal of the American Chemical Society*
Lyu, H., Gao, X., Michalek, L., Chen, T., Yu, W., Lim, C. Y., Florian, J., Mondonico, L., Zhang, W., Sarkar, S., Zhang, P., Shi, Y., Lin, et al
2026
- **Polydopamine-Mediated Grafting of Cationic Polymer Brushes for Adsorption of Fluorinated Compounds.** *Chemistry (Weinheim an der Bergstrasse, Germany)*
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2026: e03580

- **Skin-like drift-free biosensors with stretchable diode-connected organic field-effect transistors** *NATURE ELECTRONICS*
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- **A Transparent, Patternable, and Stretchable Conducting Polymer Solid Electrode for Dielectric Elastomer Actuators** *ADVANCED FUNCTIONAL MATERIALS*
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- **Tuning the Mobility of Indacenodithiophene-Based Conjugated Polymers via Coplanar Backbone Engineering** *CHEMISTRY OF MATERIALS*
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- **Degradable semiconducting polymers without long-range order for on-demand degradation of transient electronics** *JOURNAL OF MATERIALS CHEMISTRY C*
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- **Tunable 1D and 2D Polyacrylonitrile Nanosheet Superstructures.** *ACS nano*
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- **Autonomous alignment and healing in multilayer soft electronics using immiscible dynamic polymers.** *Science (New York, N.Y.)*
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- **Effect of Molecular Weight on the Morphology of a Polymer Semiconductor-Thermoplastic Elastomer Blend** *ADVANCED ELECTRONIC MATERIALS*
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- **A Versatile Light-Triggered Radical-Releasing Surface Coating Technology** *ADVANCED MATERIALS TECHNOLOGIES*
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- **Light-Gated Control of Conformational Changes in Polymer Brushes** *ADVANCED MATERIALS TECHNOLOGIES*
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