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## 2024

**Interfacial engineering of hybrid MXene-Ni-CF tri-coreshell composites for electromagnetic interference shielding and E-heating applications.**

Hu Y, Yang G, Chen J, Li Y, Dong M, Zhang H, Bilotti E, Jiang J and Papageorgiou DG. *Composites Part a Applied Science and Manufacturing* vol. 178,.Elsevier.

**Highly conductive and mechanically robust MXene@CF core-shell composites for in-situ damage sensing and electromagnetic interference shielding.**

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**Hybrid Ti3C2T x MXene and Carbon Nanotube Reinforced Epoxy Nanocomposites for Self-Sensing and Structural Health Monitoring.**

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**A Novel Electrical Depercolation Model for Stretchable Nanocomposite Strain Sensors.**

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**Kirigami-inspired organic and inorganic film-based flexible thermoelectric devices with built-in heat sink.**

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**In-Situ Hybridization of an Epoxy Resin Using Polyurethane and Mxene Nanoplatelets for Improved Strength and Toughness.**

Hu Y, Chen J, Yang G, Li Y, Dong M, Li Q, Yuan H, Zhang H, Bilotti E, Jiang J and Papageorgiou D.

**Tailored Out-of-Oven Energy Efficient Manufacturing of High-Performance Composites with Two-Stage Self-Regulating Heating via a Double Positive Temperature Coefficient Effect.**

Yao X, Wang Y, Thorn TDS, Huo S, Papageorgiou DG, Liu Y, Bilotti E and Zhang H. *Acs Applied Materials & Interfaces* vol. 15, (48) 56265-56274.American Chemical Society (Acs).

**Kirigami-Inspired Organic and Inorganic Film-Based Flexible Thermoelectric Devices with Built-In Heat Sink.**  
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**Interface-engineered Au@MoS<sub>2</sub> core-shell heterostructures with superior hot-carrier transfer dynamics for plasmonics and optoelectronics.**

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**Customized Electrolyte and Host Structures Enabling High-Energy-Density Anode-Free Potassium-Metal Batteries.**

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**Energy efficient out-of-oven manufacturing of natural fibre composites with integrated sensing capabilities and improved water barrier properties.**

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**In-situ damage self-monitoring of fiber-reinforced composite by integrating self-powered ZnO nanowires decorated carbon fabric.**

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**High-safety and high-voltage lithium metal batteries enabled by nonflammable diluted highly concentrated electrolyte.**

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**Light-Driven Actuation in Synthetic Polymers: A Review from Fundamental Concepts to Applications.**

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**Ultra-high energy density integrated polymer dielectric capacitors.**

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**2021****Highly stretchable and sensitive self-powered sensors based on the N-Type thermoelectric effect of polyurethane/Nax(Ni-ett)n/graphene oxide composites.**

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**Self-powered ultrasensitive and highly stretchable temperaturestrain sensing composite yarns.**

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