

Self-Powering Smart Clothing

Challenge

Sensors used in smart clothing depend on external electrical energy and require an enclosed unit to house batteries and the communication circuit.

Solution

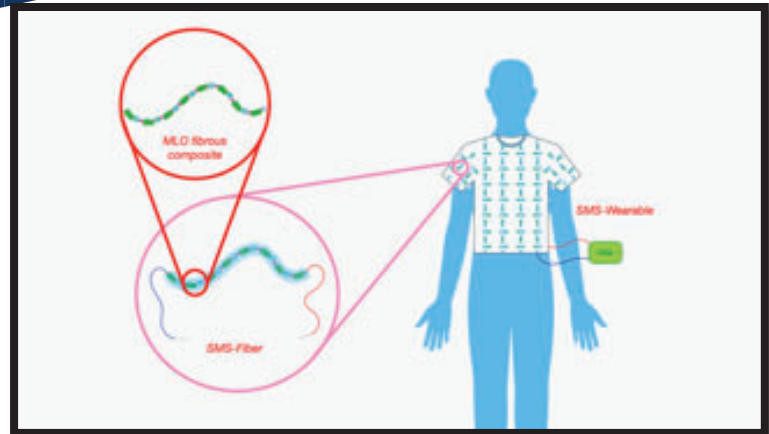
Mechano-luminescence-optoelectronic (MLO) smart clothing converts mechanical energy from body movement into electrical energy that can be applied to several functions such as sensing tensile strain and charging electrical bodies (battery, etc.). This invention employs MLO fibers that can self-power sensors and harvest energy from bodies.

Benefits and Features

- MLO self-powering sensor platform
- The ability to harvest energy
- Multimodal sensing wearables
- Lightweight, minimally intrusive, highly flexible and resilient

Market Potential / Applications

This invention has a variety of applications for use in multifunctional materials, self-powered sensors, health monitoring wearables and drone technology.



Developments and Licensing Status

Status: Available

Commercial sponsor sought? Yes

Patent Status

US and EP Patent Pending

US Patent Issued 11,047,750 B2 (MLO)

US Patent Issued 11,725,994 B2 (MLO aircraft)

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