

Partnerships to produce yarn, textiles out of our unique organic polymer solution that creates the metallic conductivity in the backbone of any required materials without metal.

Summary

Profile type

Business request

Company's country

United Kingdom

POD reference

BRGB20241127003

Profile status

PUBLISHED

Type of partnership

**Commercial agreement
Investment agreement**

Targeted countries

• World

Contact Person

[Giovanni CHIACCHIO](#)

Term of validity

**6 Dec 2024
6 Dec 2025**

Last update

6 Dec 2024

General Information

Short summary

We have created a single organic polymer solution built within the polymer backbone and contains 'zwitter-ionic' charges that creates the metallic conductivity in the backbone of any required materials. The combination of flexibility, durability, and electrical conductivity in a polymer opens up vast possibilities for innovation. This single polymers solution for plastic and textiles industries means we can convert any polymer into a metallic conductive material

Full description

We have created a single organic polymer solution built within the polymer backbone and contains 'zwitter-ionic' charges that creates the metallic conductivity in the backbone of any required materials. The combination of flexibility, durability, and electrical conductivity in a polymer opens up vast possibilities for innovation. This single polymers solution for plastic and textiles industries means we can convert any polymer into a metallic conductive material. This solution is

1. Low cost: Electroactive polymers are 10x cheaper than current solutions. This makes them more accessible for widespread use, promoting their adoption in various applications and enabling cost-effective production of advanced electronic devices.
2. Recyclable: The recyclability of electroactive polymers enhances sustainability by allowing repeated use and reducing waste, while maintaining their functional properties for applications such as sensors, actuators, and energy

storage devices.

3. Anti-static: The anti-static properties of electroactive polymers improve their performance and durability by preventing charge build up, which reduces the risk of malfunction and enhances reliability in electronic applications.

4. Anti-bacterial: The anti-bacterial properties of electroactive polymers enhance their safety and longevity by preventing microbial growth, making them ideal for use in medical devices and environments where hygiene is critical.

Advantages and innovations

see full description

Technical specification or expertise sought

Partners to help us create a yarn and textile out of our solution; open to other applications!

Stage of development

Available for demonstration

IPR Status

IPR granted

IPR Notes

Sustainable Development goals

- **Goal 3: Good Health and Well-being**
- **Goal 17: Partnerships to achieve the Goal**
- **Goal 9: Industry, Innovation and Infrastructure**

Partner Sought

Expected role of the partner

willingness to experiment and produce with us

Type of partnership

Type and size of the partner

Commercial agreement

Investment agreement

- SME <=10
- SME 50 - 249
- R&D Institution
- SME 11-49
- Big company

Dissemination

Technology keywords

- **02007022 - Conductive materials**
- **02007018 - Advanced Textile Materials**
- **02007023 - Hybrid materials**

Targeted countries

- **World**

Market keywords

- **08001021 - Other speciality chemicals**
- **09004003 - Textiles (synthetic and natural)**
- **03001009 - Other electronics related (including keyboards)**
- **03004003 - Other electronics related equipment**

Sector groups involved