

## **Materials Poster Abstract**

### **New route to higher energy Li-S batteries**

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The demand renewable energy systems put focus on the development of higher energy-storage systems. In this scenario, Li-ion batteries (LiBs) are the ideal candidate due to the high specific energy density, good cycle life and possibility to modulate the shape.<sup>1</sup> However, the today commercially available technology is adequate only for the consumer electronic market and still have limiting factors for applications in electric vehicles or in smart grid energy storage. The development of alternative chemistries materials with higher energy level is a mandatory step.<sup>2</sup> Li-sulfur batteries became of great interest due to the high theoretical energy density, i.e. 10 times higher than commercially available Li-ion batteries. However, the practical development of Li-S based batteries has still issues.<sup>3</sup> In this contribution, we present a new route to improve the practical energy density, safety and sustainability of Li-S batteries by using a new approach to synthesize Carbon Nanofibers/sulfur composite electrodes.

#### **References**

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