



## Processing and Characterization of Advanced Composites for Resource-Efficient Applications and Technologies

*“CREATE-Network”*

### Report: Deliverable D1.1 - Production of Carbon hybrid materials

Deliverable No	Deliverable Name	WP No	Lead Participant Short Name	Nature	Dissemination Level	Delivery Month
D1.1	Production of Carbon hybrid materials	1	INM	Other	PU	From 5

- Carbon / metal oxide hybrid (CMOH) materials were generated by hydrothermal growth of birnessite (i.e., manganese oxide) around carbon onion particles.
- Carbon / metal nitride hybrid (CMNH) materials were synthesized via atomic layer deposition of titanium nitride.
- Carbon / quinone hybrid (CQH) materials were obtained by drop-casting quinone solution on carbon substrates. As a novel type of carbon substrate, we used nanodiamonds blended in-between polyacrylonitrile fibers (PAN) obtained by electrospinning.

Further details are presented in the Deliverable 6.3, Progress Technical report 1.