

Supporting Information

A 3D MoO₃/carbon composite arrays as binder-free anode in lithium-ion batteries

Tim Herdt^a, Michael Bruns^b and Jörg J. Schneider^{*,a}

^aFachbereich Chemie, Eduard-Zintl-Institut für Anorganische und Physikalische Chemie, Technische Universität Darmstadt, Alarich-Weiss-Strasse 12, 64287 Darmstadt, Germany.

^bKarlsruhe Institute of Technology, Institute for Applied Materials (IAM-ESS), Hermann-von-Helmholtz-Platz 1, B 32, D-76344 Eggenstein-Leopoldshafen, Germany

E-mail: joerg.schneider@ac.chemie.tu-darmstadt.de

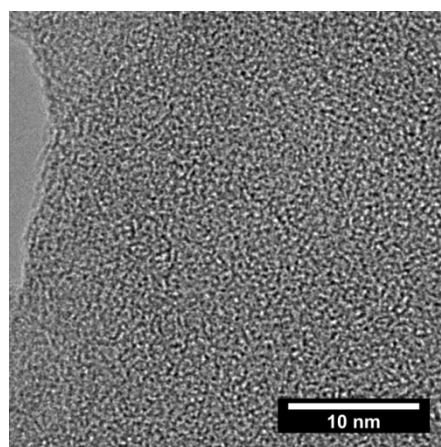


Figure S1. TEM image of the amorphous carbon material, obtained by carbonization of sucrose at 450 °C for 10 min.

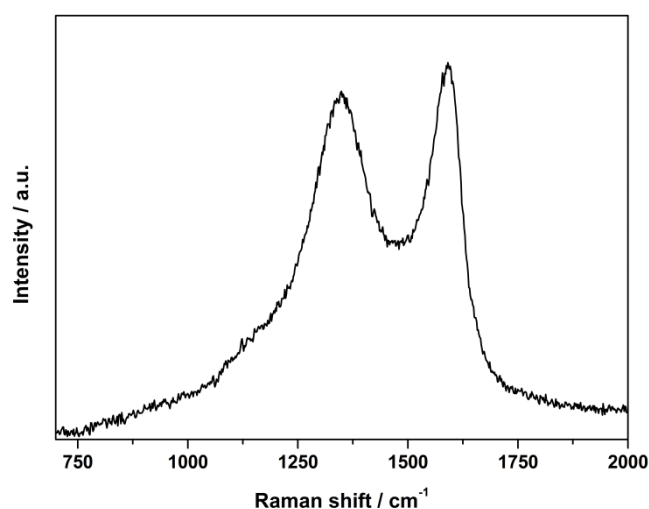


Figure S2. Raman spectrum of carbonized sucrose prepared at 450 °C for 10 min under Ar atmosphere.

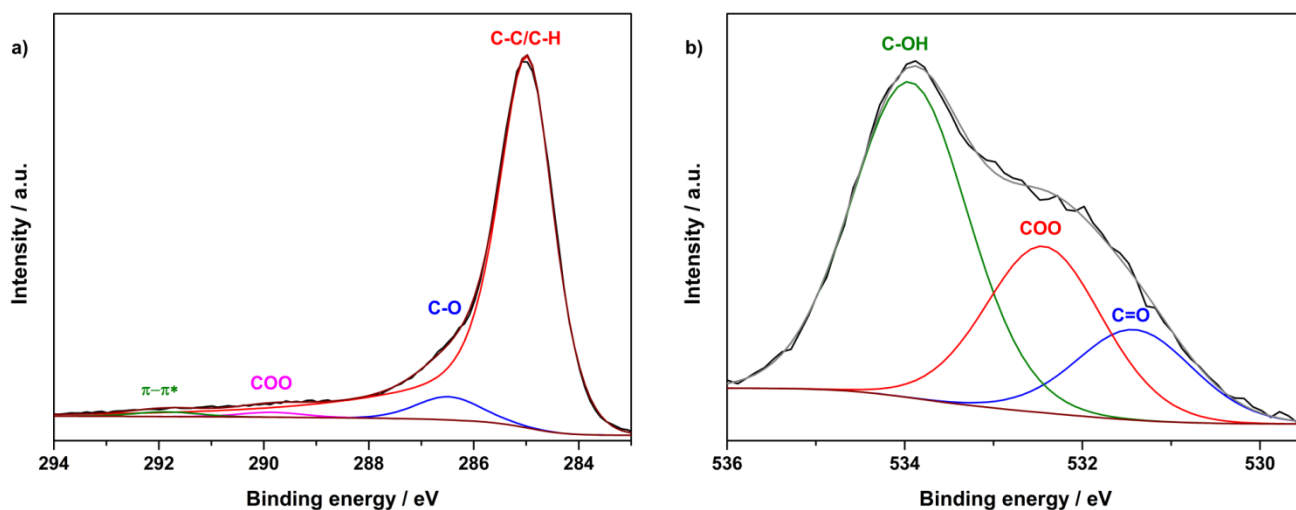


Figure S3. Deconvoluted C1s (a)) and O1s core level spectra (b)) of the carbonaceous material prepared by the carbonization of sucrose at 450 °C for 10 min.

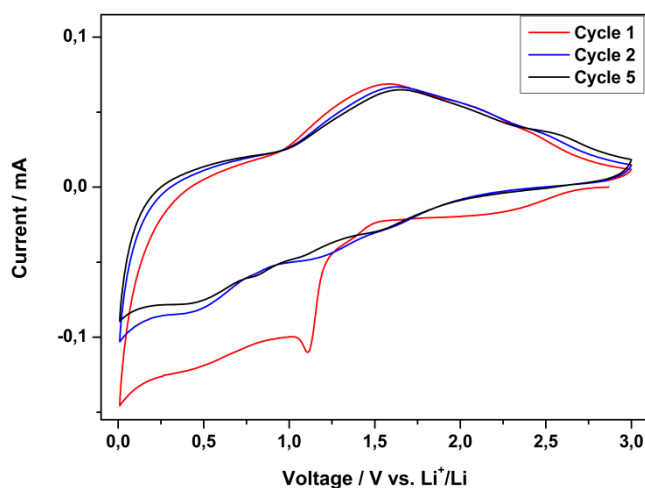


Figure S4. Cyclic voltammogram of carbonized sucrose, obtained at 450 °C for 10 min under Ar atmosphere.

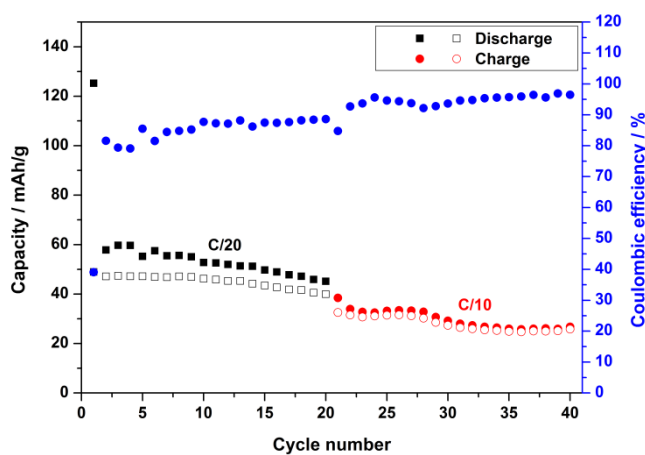


Figure S5. Rate performance of the carbonaceous material prepared by carbonization of sucrose (450 °C/ 10 min) at C rates of C/20 as well as C/10 in relation to the theoretical capacity of graphite (372 mAh/g).