Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2017

Electronic Supplementary Information

for

Rieche formylation of carbon nanotubes – one-step and versatile functionalization route

by

Anna Kolanowska^a, Anna Kuziel^a, Yuliu Li^a, Sebastian Jurczyk^b, Sławomir Boncel^a*

Silesian University of Technology, Department of Organic Chemistry, Bioorganic Chemistry and Biotechnology, Krzywoustego 4, 44-100 Gliwice, Poland.

Institute for Engineering of Polymer Materials and Dyes, Skłodowskiej-Curie 55, 87-100 Toruń, Poland * corresponding author: tel.: +48 32 237 12 72, fax: +48 32 237 20 94, slawomir.boncel@polsl.pl (Slawomir Boncel).

Synthesis of in-house MWCNTs

In-house MWCNTs were synthesised via c-CVD at 760 °C with a feedstock continuously injected to a preheater at 250 °C. The main carbon source was toluene while catalyst precursor was FeCp₂ (5.5% wt.%). The carrier gas was Ar with the flow-rate of 1.8 L/min. The feedstock was dosed for 4 h at the rate 2.8 mL/h.

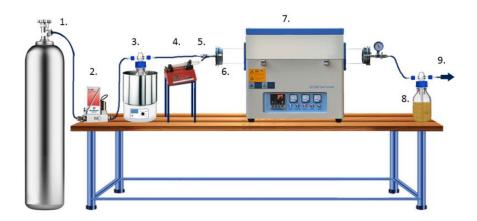


Fig. S1. Synthesis of in-house MWCNTs: 1) Ar cylinder, 2) flow-mass controller, 3) pre-heater, 4) syringe, 5) feedstock injection, 6) quartz tube, 7) furnace, 8) rinser, 9) exhausts to fume hood.