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The elemental analysis and multi-nuclear NMR study of an alkali molten salt used to digest reference and commercial SWCNT powders

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Table S1. Mass fractions of selected elements obtained by INAA for SWCNT-5848V (test portion mass 30 mg, average and standard deviation for N = 5).

Element	avg ± std dev (mg kg^{-1})
Cr	604 ± 34
Fe	126700 ± 2400
Mn	43 ± 4
Ni	1110 ± 70

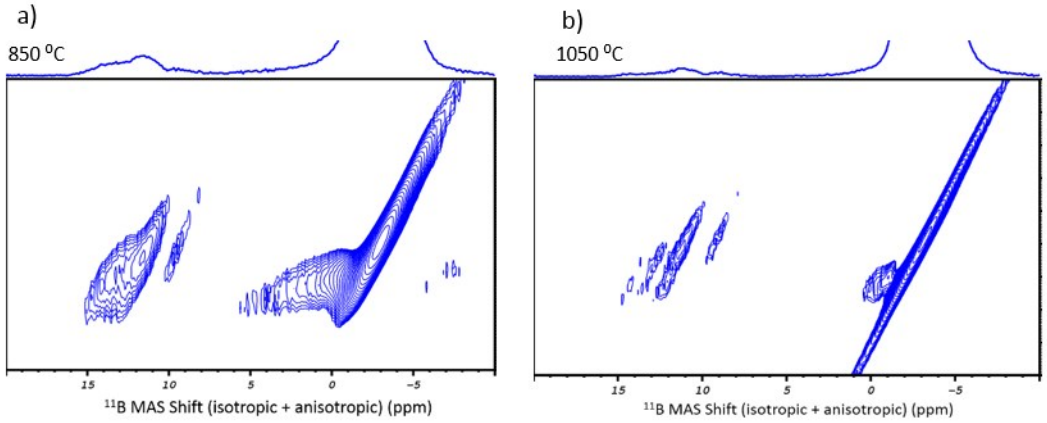

Figure S1. ^{11}B MAS NMR of SRM 2483 at **a)** 850°C and **b)** 1050 °C.

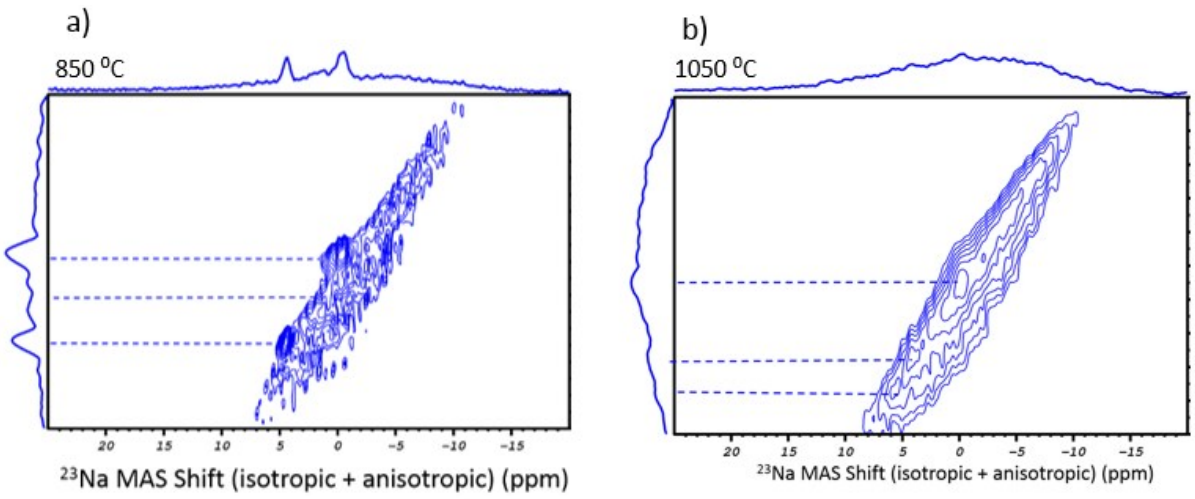

Figure S2. ^{23}Na MAS NMR of SRM 2483 at **a)** 850°C and **b)** 1050 °C.

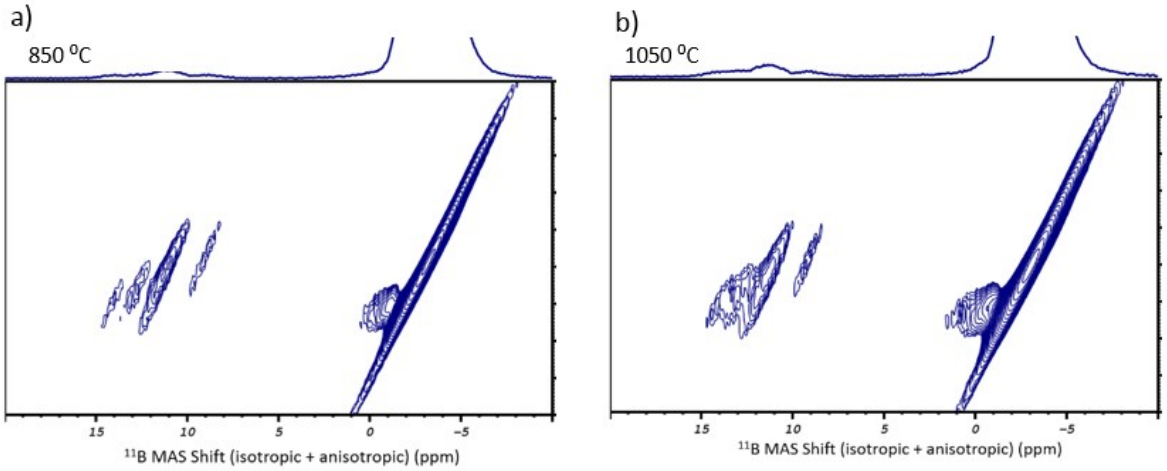

Figure S3. ^{11}B MAS NMR of SWCNT-7867V at **a)** 850°C and **b)** 1050 °C.

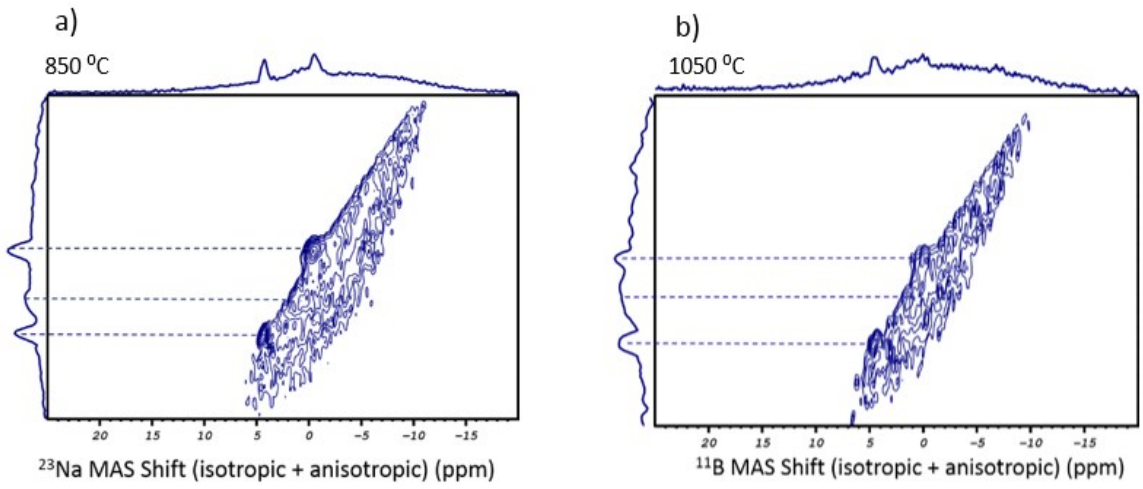

Figure S4. ^{23}Na MAS NMR of SWCNT-7867V at **a)** 850°C and **b)** 1050 °C.

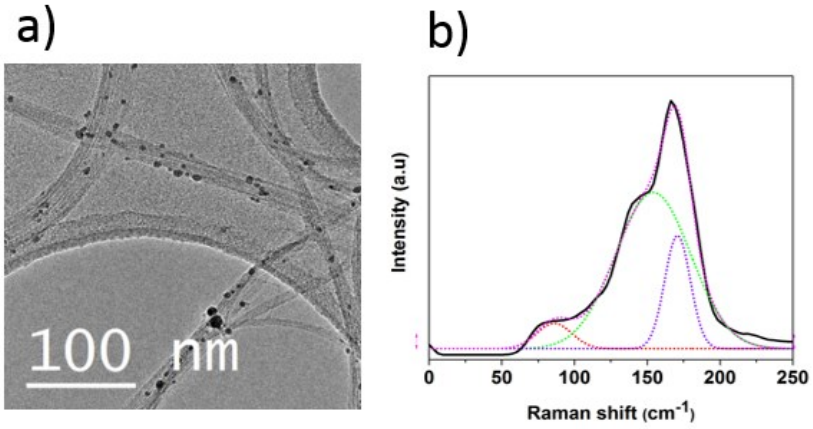

Figure S5. a) TEM micrograph (low mag) and **b)** Raman spectrum of the SWCNT-5848V with deconvolution of the RBM band, resulting on an average diameter of 1.7 ± 0.5 nm. The diameter was calculated according to the formula (where ω RBM is the RBM frequency, c1 and c2 are constants and d, the nanotube diameter) [1]:

$$\omega\,(RBM) = \frac{c1}{d} + c2$$

References

1. Decker, J. E.; Hight Walker, A. R.; Bosnick, K.; Clifford, C. A.; Dai, L.; Fagan, J.; Hooker, S.; Jakubek, Z. J.; Kingston, C.; Makar, J.; Mansfield, E.; Postek, M. T.; Simard, B.; Sturgeon, R.; Wise, S.; Vladar, A. E.; Yang,

L.; Zeisler, R., Sample preparation protocols for realization of reproducible characterization of single-wall carbon nanotubes. *Metrologia* **2009**, *46* (6), 682-692.