

University of Groningen

Carbon nanotubes decorated with palladium nanoparticles

Karousis, Nikolaos; Tsotsou, Georgia-Eleni; Evangelista, Fabrizio; Rudolf, Petra; Ragoussis, Nikitas; Tagmatarchis, Nikos

Published in:
Journal of Physical Chemistry C

DOI:
[10.1021/jp802920k](https://doi.org/10.1021/jp802920k)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2008

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Karousis, N., Tsotsou, G-E., Evangelista, F., Rudolf, P., Ragoussis, N., & Tagmatarchis, N. (2008). Carbon nanotubes decorated with palladium nanoparticles: Synthesis, characterization, and catalytic activity. *Journal of Physical Chemistry C*, 112(35), 13463-13469. DOI: 10.1021/jp802920k

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Supporting Information

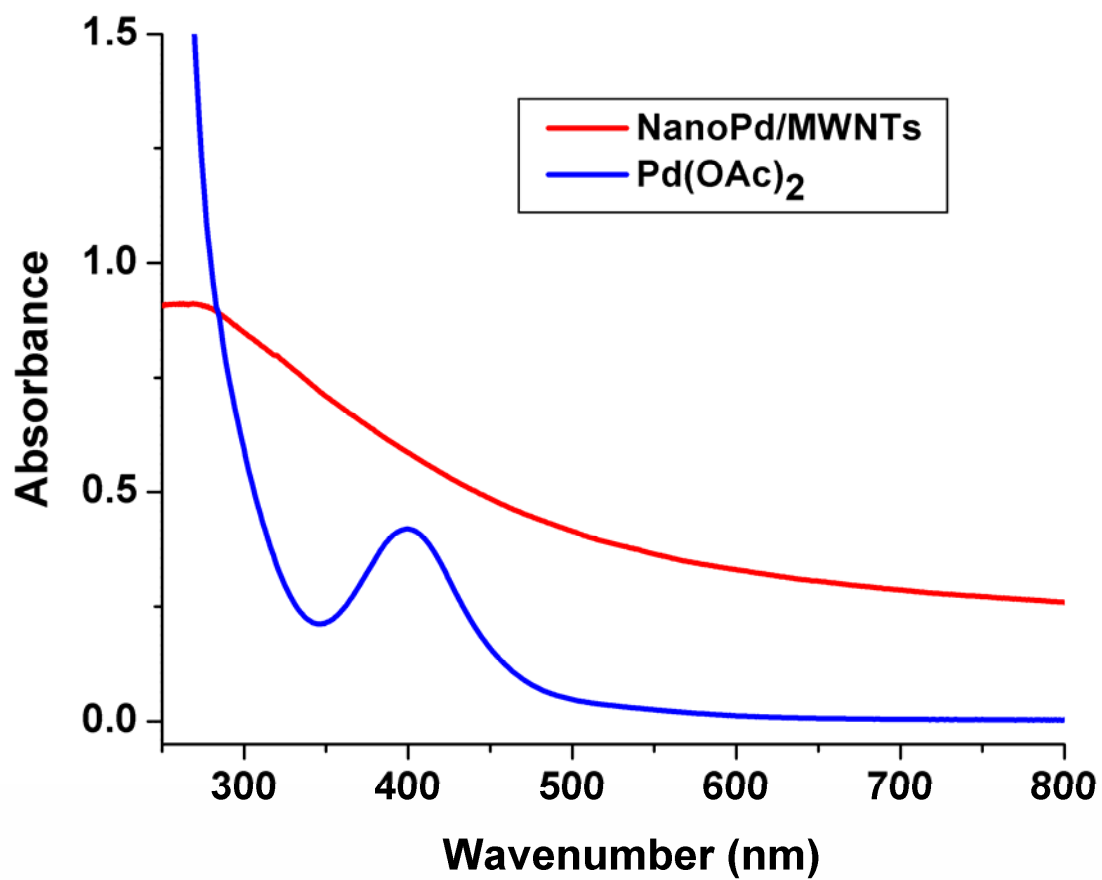


Figure S1. UV-VIS-NIR spectrum of Pd(OAc)₂ and nanoPd-MWNTs, obtained in THF.

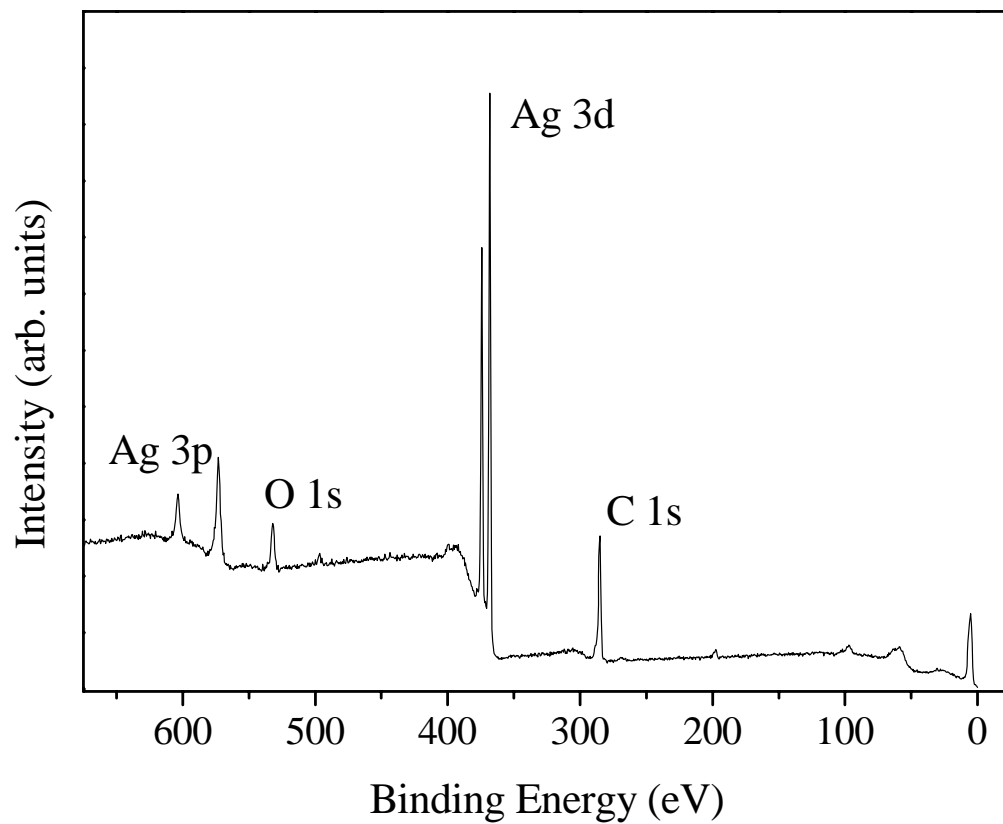


Figure S2. Wide XPS scan from pristine CNTs. In this case a polycrystalline silver foil was used as substrate. The oxygen signal is much smaller and is attributed exclusively to entrapped methanol.

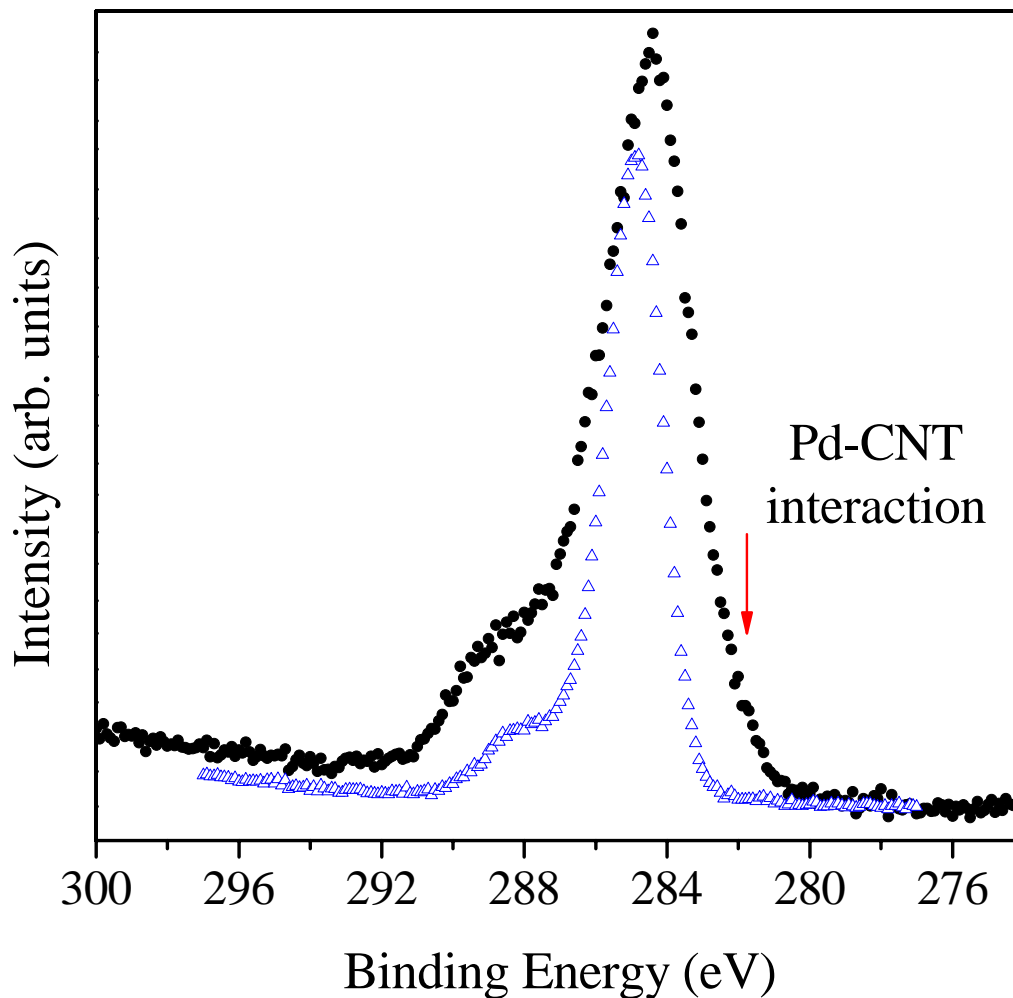


Figure S3. Comparison XPS C 1s : pristine vs Pd-decorated CNTs. The C 1s photoemission spectrum of Pd-decorated MWCNT (already shown in Figure 3) is superimposed with that of pristine CNT, displayed with blue empty triangles. In the pristine CNT spectrum the shoulder at high BE appears lower, both in binding energy and in intensity, because in the pristine CNT no SDS is used and, as a consequence, no dodecanoic acid is formed, so the contribution in this energy range will come mainly from entrapped methanol. The comparison of the main C 1s feature of the two samples clearly evidences the broadening induced by the Pd-decoration.