Alignment and Use of Self-Assembled Peptide Nanotubes as Dry-Etching Mask

Self-assembled diphenylalalanine peptide nanotubes provide a means of achieving nanostructured materials in a very simple and fast way. Recent discoveries have shown that this unique material, in addition to remaining stable under dry conditions, rapidly dissolves in water making it a promising candidate for controlled nanofabrication without organic solvents. The present work demonstrates how this unique structure can be aligned, manipulated and used as both an etching mask in a dry etching procedure and as a lift-off material. As a further demonstration of the potential of this technique, the peptide nanotubes were utilized to fabricate silicon nanowire devices and gold nanoslits in a rapid manner.

General information
State: Published
Organisations: Department of Micro- and Nanotechnology, Nano Bio Integrated Systems
Contributors: Andersen, K. B., Castillo, J., Bakmand, T., Svendsen, W. E.
Number of pages: 5
Publication date: 20 Jun 2012
Peer-reviewed: Yes

Publication information
Volume: 51
ISSN (Print): 0021-4922
Ratings:
Web of Science (2018): Indexed yes
Scopus rating (2017): CiteScore 1.13 SJR 0.497 SNIP 0.668
Web of Science (2017): Impact factor 1.452
Web of Science (2017): Indexed yes
Scopus rating (2016): CiteScore 0.67 SJR 0.497 SNIP 0.768
Web of Science (2016): Impact factor 1.384
Web of Science (2016): Indexed yes
Scopus rating (2015): CiteScore 0.58 SJR 0.426 SNIP 0.682
Web of Science (2015): Impact factor 1.122
Scopus rating (2014): CiteScore 0.73 SJR 0.209 SNIP 0.189
Web of Science (2014): Impact factor 1.127
Scopus rating (2013): CiteScore 0.65 SJR 0.111 SNIP 0
Web of Science (2013): Impact factor 1.057
ISI indexed (2013): ISI indexed no
Web of Science (2013): Indexed yes
Scopus rating (2012): CiteScore 0.7 SJR 0.151 SNIP 0.171
Web of Science (2012): Impact factor 1.067
ISI indexed (2012): ISI indexed no
Scopus rating (2011): CiteScore 0.94 SJR 0.61 SNIP 1.476
Web of Science (2011): Impact factor 1.058
ISI indexed (2011): ISI indexed no
Scopus rating (2010): SJR 0.574 SNIP 1.066
Web of Science (2010): Impact factor 1.024
Scopus rating (2009): SJR 0.585 SNIP 1.039
Scopus rating (2008): SJR 0.764 SNIP 0.689
Scopus rating (2007): SJR 0.858 SNIP 0.877
Scopus rating (2006): SJR 0.829 SNIP 0.969
Scopus rating (2005): SJR 0.764 SNIP 0.889
Scopus rating (2004): SJR 0.842 SNIP 0.998
Scopus rating (2003): SJR 0.92 SNIP 0.994
Scopus rating (2002): SJR 0.961 SNIP 1.134