Emerging trends in surface metrology

Recent advancements and some emerging trends in the methods and instruments used for surface and near surface characterisation are presented, considering the measurement of both topography and physical properties. In particular, surfaces that present difficulties in measurement or require new procedures are considered, with emphasis on measurements approaching the nanometre scale. Examples of new instruments and promising innovations for roughness measurement and surface integrity characterisation are presented. The new needs for tolerancing, traceability and calibration are also addressed.

General information
State: Published
Organisations: Department of Management Engineering, University of Genoa, Oklahoma State University
Contributors: Lonardo, P., Lucca, D., De Chiffre, L.
Pages: 701-723
Publication date: 2002
Peer-reviewed: Yes

Publication information
Journal: C I R P Annals
Volume: 51
Issue number: 2
ISSN (Print): 0007-8506
Ratings:
BFI (2018): BFI-level 2
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 4.09 SJR 2.034 SNIP 2.811
Web of Science (2017): Impact factor 3.333
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Scopus rating (2016): CiteScore 3.93 SJR 2.055 SNIP 3.158
Web of Science (2016): Impact factor 2.893
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Scopus rating (2015): CiteScore 3.83 SJR 2.088 SNIP 3.294
Web of Science (2015): Impact factor 2.492
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): CiteScore 4.39 SJR 3.123 SNIP 3.992
Web of Science (2014): Impact factor 2.542
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): CiteScore 3.87 SJR 2.598 SNIP 3.818
Web of Science (2013): Impact factor 2.541
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): CiteScore 3.04 SJR 2.088 SNIP 4.156
Web of Science (2012): Impact factor 2.251
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): CiteScore 2.81 SJR 2.117 SNIP 3.46
Web of Science (2011): Impact factor 1.708
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.12 SNIP 3.449
Web of Science (2010): Impact factor 1.684
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 1.652 SNIP 2.219
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 1.056 SNIP 1.645
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.119 SNIP 1.55
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 0.892 SNIP 1.96
Web of Science (2006): Indexed yes
Scopus rating (2005): SJR 0.988 SNIP 1.904
Web of Science (2005): Indexed yes
Scopus rating (2004): SJR 1.591 SNIP 2.376
Web of Science (2004): Indexed yes
Scopus rating (2003): SJR 1.142 SNIP 1.823
Web of Science (2003): Indexed yes
Scopus rating (2002): SJR 0.866 SNIP 2.26
Web of Science (2002): Indexed yes
Scopus rating (2001): SJR 0.575 SNIP 2.161
Web of Science (2001): Indexed yes
Scopus rating (2000): SJR 0.788 SNIP 2.182
Web of Science (2000): Indexed yes
Scopus rating (1999): SJR 0.779 SNIP 2.611
Original language: English
DOIs:
10.1016/S0007-8506(07)61708-9
Source: orbit
Source-ID: 62882
Research output: Research - peer-review : Journal article – Annual report year: 2002