

Title (en)

METHOD AND APPARATUS FOR WAFER METROLOGY

Title (de)

VERFAHREN UND VORRICHTUNG FÜR DIE MESSUNG AN WAFERN

Title (fr)

PROCEDE ET APPAREIL DE METROLOGIE DE PLAQUETTE

Publication

EP 1163488 A1 20011219 (EN)

Application

EP 00921435 A 20000322

Priority

- US 0007709 W 20000322
- US 12546299 P 19990322
- US 12891599 P 19990412
- US 14319999 P 19990709
- US 17285199 P 19991210
- US 49582100 A 20000201

Abstract (en)

[origin: WO0057127A1] This invention is an apparatus for imaging metrology, which in particular embodiments may be integrated with a processor station such that a metrology station is apart from but coupled to a process station. The metrology station is provided with a first imaging camera with a first field of view containing the measurement region. Alternate embodiments include a second imaging camera with a second field of view. Preferred embodiments comprise a broadband ultraviolet light source, although other embodiments may have a visible or near infrared light source of broad or narrow optical bandwidth. Embodiments including a broad bandwidth source typically include a spectrograph, or an imaging spectrograph. Particular embodiments may include curved, reflective optics or a measurement region wetted by a liquid. In a typical embodiment, the metrology station and the measurement region are configured to have 4 degrees of freedom of movement relative to each other.

IPC 1-7

G01B 11/06; H01L 21/66; G01N 21/88; H01L 21/304; C23C 16/52

IPC 8 full level

B24B 49/12 (2006.01); **G01B 11/06** (2006.01); **G01B 11/24** (2006.01); **G01B 11/30** (2006.01); **G01N 21/95** (2006.01); **H01L 21/66** (2006.01); **H01L 21/67** (2006.01); **H01L 21/683** (2006.01); **G01N 21/21** (2006.01)

CPC (source: EP)

B24B 49/12 (2013.01); **G01B 11/0625** (2013.01); **G01B 11/30** (2013.01); **G01N 21/9501** (2013.01); **H01L 21/67** (2013.01); **G01N 21/211** (2013.01); **H01L 22/12** (2013.01)

Citation (search report)

See references of WO 0057127A1

Citation (examination)

- US 4402613 A 19830906 - DALY JOHN K [US], et al
- US 4505585 A 19850319 - YOSHIKAWA SHOJI [JP], et al

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0057127 A1 20000928; WO 0057127 A9 20020328; AU 4175800 A 20001009; EP 1163488 A1 20011219; JP 2002540388 A 20021126; TW 493205 B 20020701

DOCDB simple family (application)

US 0007709 W 20000322; AU 4175800 A 20000322; EP 00921435 A 20000322; JP 2000606954 A 20000322; TW 89105382 A 20000322