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(12) **ABSTRACT OF INVENTION**(21), (22) Application: **2005101495/28, 25.01.2005**(24) Effective date for property rights: **25.01.2005**(43) Application published: **10.07.2006**(45) Date of publication: **20.03.2007 Bull. 8**

Mail address:

**107023, Moskva, ul. B. Semenovskaja, 31,  
korp.2, kv.2, R.V. Lapshinu**

(72) Inventor(s):

**Lapshin Rostislav Vladimirovich (RU)**

(73) Proprietor(s):

**Lapshin Rostislav Vladimirovich (RU)**(54) **METHOD OF AUTOMATIC DISTRIBUTED CALIBRATION OF PROBE MICROSCOPE'S SCANNER**

(57) Abstract:

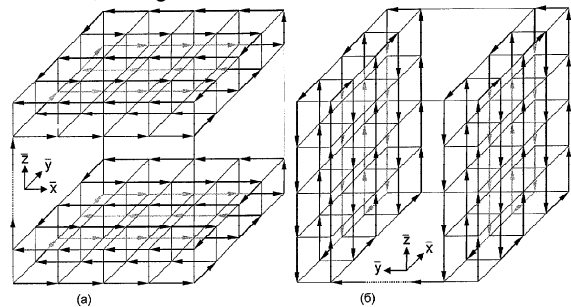
FIELD: scanning probing microscopy; calibration of probe microscope's scanner.

SUBSTANCE: in the beginning of distributed calibration the space of shifts of scanner is divided to areas by mesh which has units to correspond to absolute integral coordinates of scanner. Scanner of microscope moves from one unit of mesh to another adjacent one like along points of raster. Shifts in raster are built in such a way that movements in adjacent lines/columns, as well as in adjacent planes, should be made to meet each other. Position of fine Z manipulator of scanner at movements along units of mesh in vertical plane is preset by means of rough Z manipulator. Local scanning of aperture is made within neighborhood of any unit,

as well as search and catch of closest local calibration structure (LCS). After approximate relative coordinates of peculiarities of LCS are found, skipping operation is carried out.

EFFECT: improved precision of calibration of scanner of probe microscope.

12 cl, 3 dwg



Фиг. 1