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(12) **ABSTRACT OF INVENTION**

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(54) **METHOD OF CORRECTION OF SURFACE IMAGES OBTAINED USING SCANNING PROBE MICROSCOPE AND DISTORTED WITH DRIFT**

(57) Abstract:

FIELD: scanning probe microscopy.

SUBSTANCE: drift correction is performed in the automatic mode. Distortions caused by drift are described with linear transformations, which are true if the microscope drift rate changes sufficiently slowly. As the source data, one or two pairs of oppositely scanned images (OSI) of the surface relief are used. In opposite scanning, the displacement along the raster line and between lines in the same image is performed in the direction opposite to the other displacement direction. According to the proposed

method, the same surface feature shall be recognised in each OSI and its lateral coordinates shall be determined for the image correction. The OSI correction in the lateral and vertical planes is performed by determining the linear transformation ratios. After combining the corrected OSIs, the relief averaging is performed in their overlap area.

EFFECT: evaluation of drift correction error and obtaining corrected images with error not exceeding certain preset value.

22 cl, 23 dwg, 4 tbl

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