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The invention relates to the field of technological physics, in particular to nanotechnology, and consists in developing a process for producing a new type of water spinner that rotates by impulses.
The process, according to the invention, consists in producing hydrophobic three-dimensional gallium nitride nanostructures by epitaxial growth on a ZnO sacrificial substrate at a temperature of 600…850°C of a GaN layer of a thickness of 15…20 nm, decomposing the sacrificial ZnO layer in hydrogen flow at a temperature of 600…850°C, placing the droplets of a 5% aqueous ethyl alcohol solution with a volume of 50…100 μL over the GaN nanostructures and rotating the system for 25…40 s to obtain spheres of a diameter of 3…8 mm, coated with GaN nanoparticles and filled with aqueous ethyl alcohol solution, and subsequently changing the density of nanostructures by thinning the layer of nanoparticles in two diametrically opposite places of the spheres with the sharp tip of a tweezers, obtaining conical holes with a tip diameter of 400…600 μm.

Claims: 1
Fig.: 3