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(71) Applicant: **WILLIAM MARSH RICE UNIVERSITY**
[US/US]; 6100 Main Street, Houston, Texas 77005 (US).

(72) Inventors: **TOUR, James M.**; 6100 Main Street, Houston, Texas 77005 (US). **LI, John Tianci**; 6100 Main Street, Houston, Texas 77005 (US). **WYSS, Kevin**; 6100 Main Street, Houston, Texas 77005 (US). **CHEN, Jinhang**; 6100 Main Street, Houston, Texas 77005 (US). **CHEN, Weiyin**; 6100 Main Street, Houston, Texas 77005 (US). **EDDY, Lucas**; 6100 Main Street, Houston, TX 77005 (US). **SCOT-**

LAND, Phelecia; 6100 Main Street, Houston, TX 77005 (US).

(74) Agent: **GARSSON, Ross Spencer**; DICKINSON WRIGHT PLLC, International Square, 1825 Eye St. N.W., Suite 900, Washington, District of Columbia 20006 (US).

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(54) Title: FLASH JOULE HEATING FOR PRODUCTION OF 1D CARBON AND/OR BORON NITRIDE NANOMATERIALS

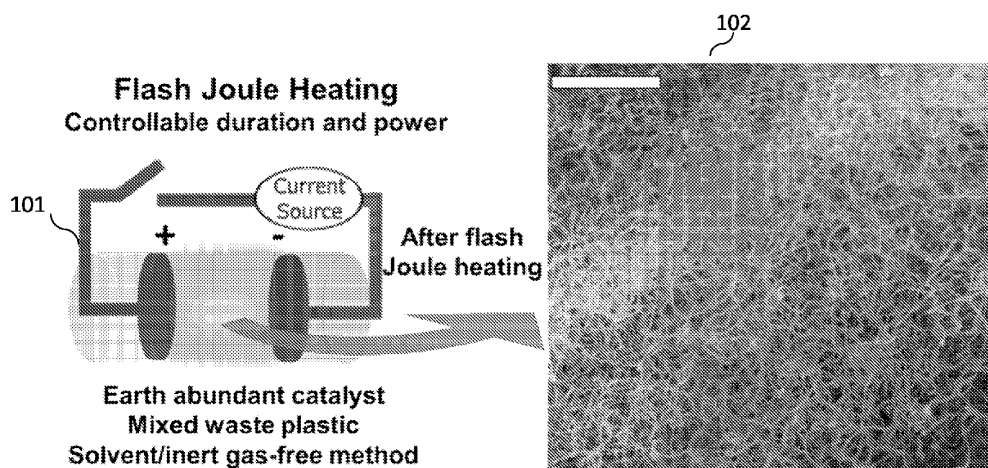


FIG. 1A

(57) Abstract: Flash Joule heating (FJH) for production of one-dimensional (1D) carbon and/or boron nitride nanomaterials, and 1D materials integrated with 0D, 1D, 2D, and 3D nanomaterials, composites, nanostructures, networks, and mixtures thereof. Such materials produced by FJH include 1D carbon and hybrid nanomaterials, boron nitride nanotubes (BNNTs), turbostratic boron-carbon-nitrogen (BCN), doped (substituted) graphene, and heteroatom doped (substituted) re-flashed graphene.

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