

Title (en)

LASER ASSISTED FIBER GROWTH

Publication

EP 0318506 A4 19920226 (EN)

Application

EP 87905528 A 19870812

Priority

US 89771086 A 19860818

Abstract (en)

[origin: WO8801204A1] Small diameter fibers formed from the use of laser energy and gaseous reactants. Also disclosed is an apparatus and method for the formation of continuous, substrate free, crystalline or amorphous fibers. Materials which can be formed into small diameter fibers include boron, silicon, germanium, zinc, tungsten, cadmium, gallium, rhenium, and compounds and mixtures thereof. The fibers have a diameter of about 10 micrometers to about 170 micrometers. The apparatus for producing the fibers includes a laser, a reaction chamber, and gas supply means. The laser beam has a focal point adjusted to coincide with the tip of the growing fiber, the focal point of the laser creating a region of elevated temperature at the fiber tip.

IPC 1-7

B05D 3/06; **D01D 5/00**; **C23C 16/00**

IPC 8 full level

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Citation (search report)

- [A] FR 2232613 A1 19750103 - POUDRES & EXPLOSIFS STE NALE [FR]
- [A] APPLIED PHYSICS LETTERS vol. 35, no. 6, 15 September 1979, NEW YORK US pages 449 - 451; W. TANTRAPORN: 'Flexible GaAs ribbons'
- See references of WO 8801204A1

Designated contracting state (EPC)

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