

Title (en)
UNIFORM ASPECT RATIO SILVER NANOWIRES PREPARATION METHOD

Title (de)
VERFAHREN ZUR HERSTELLUNG VON SILBER-NANODRÄHTEN MIT EINHEITLICHEM ASPEKTVERHÄLTNIS

Title (fr)
PROCÉDÉ DE PRÉPARATION DE NANOFILS D'ARGENT À RAPPORT D'ASPECT UNIFORME

Publication
EP 3360628 B1 20220209 (EN)

Application
EP 16852969 A 20160314

Priority
• CN 201510645800 A 20151009
• CN 2016076284 W 20160314

Abstract (en)
[origin: EP3360628A1] A preparation method for silver nanowires with a uniform aspect ratio, including: dissolving at a certain temperature silver nitrate in glycerol to get a solution A; dissolving at a certain temperature polyvinylpyrrolidone (PVP) in glycerol to get a solution B; mixing uniformly the solution A and the solution B to form a solution C; then, adding a certain amount of a medium into the solution C and mixing uniformly to form a solution D, finally, transferring the solution D into a reaction kettle, putting the reaction kettle into an oven with a set temperature, and ending the reaction after a certain time of reaction. The reactants are centrifuged twice to obtain precipitated silver nanowires. With the addition of the medium, the method can improve the moving speed of ions in a reaction solution, and obtain the silver nanowires with a uniform aspect ratio and nodes. The preparation method is simple and easy to operate, experimentally stable, and suitable for industrial production.

IPC 8 full level
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CPC (source: EP KR US)
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