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(57) Abstract :

According to another aspect, an apparatus for synthesizing a spherical hybrid nanoparticle comprising, a first spool, second spool and a wire guide operative to supply a wire of first material through the wire guide, a workpiece of second material attached to a spindle; wherein the workpiece and the wire are positioned in a close proximity to cause a spark when an electric pulse of a first voltage is applied between the two, a resistor and a capacitor circuit receiving a direct current power supply is operative to generate a sequence of electric pulses of the first voltage, an electrolyte bath housing the wire guide and the spindle to collect the nanoparticle debris, wherein the apparatus synthesizes the nanoparticles of first and the second material when the sequence of electric pulses are applied between the wire and the workpiece while the spindle and spool are rotating to provide a fresh part of the workpiece and wire at the (106) point. <

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