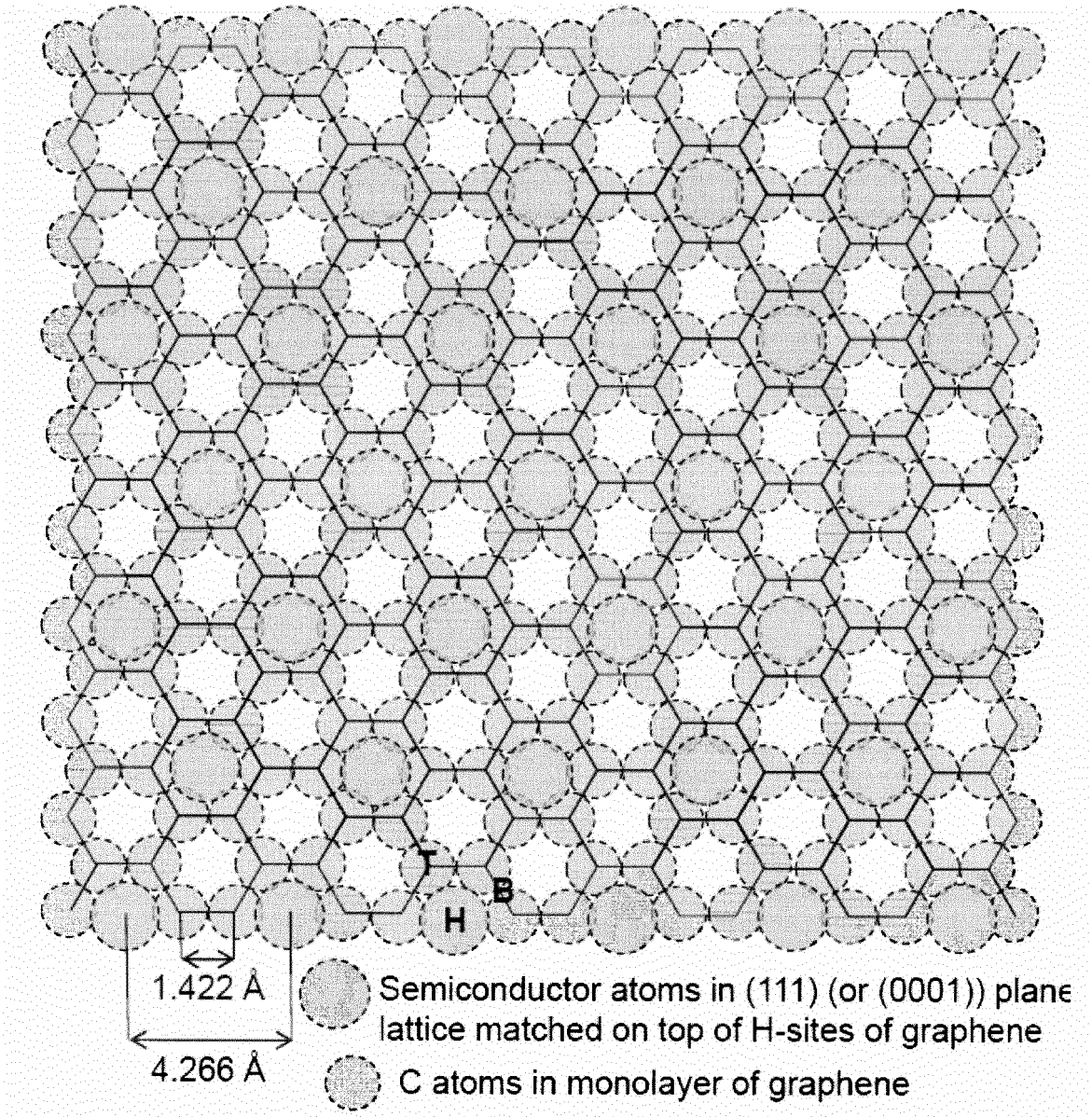

T
B
H
1.422 Å
4.266 Å
Semiconductor atoms in (111) (or (0001)) plane
lattice matched on top of H-sites of graphene
C atoms in monolayer of graphene

Fig. 1A

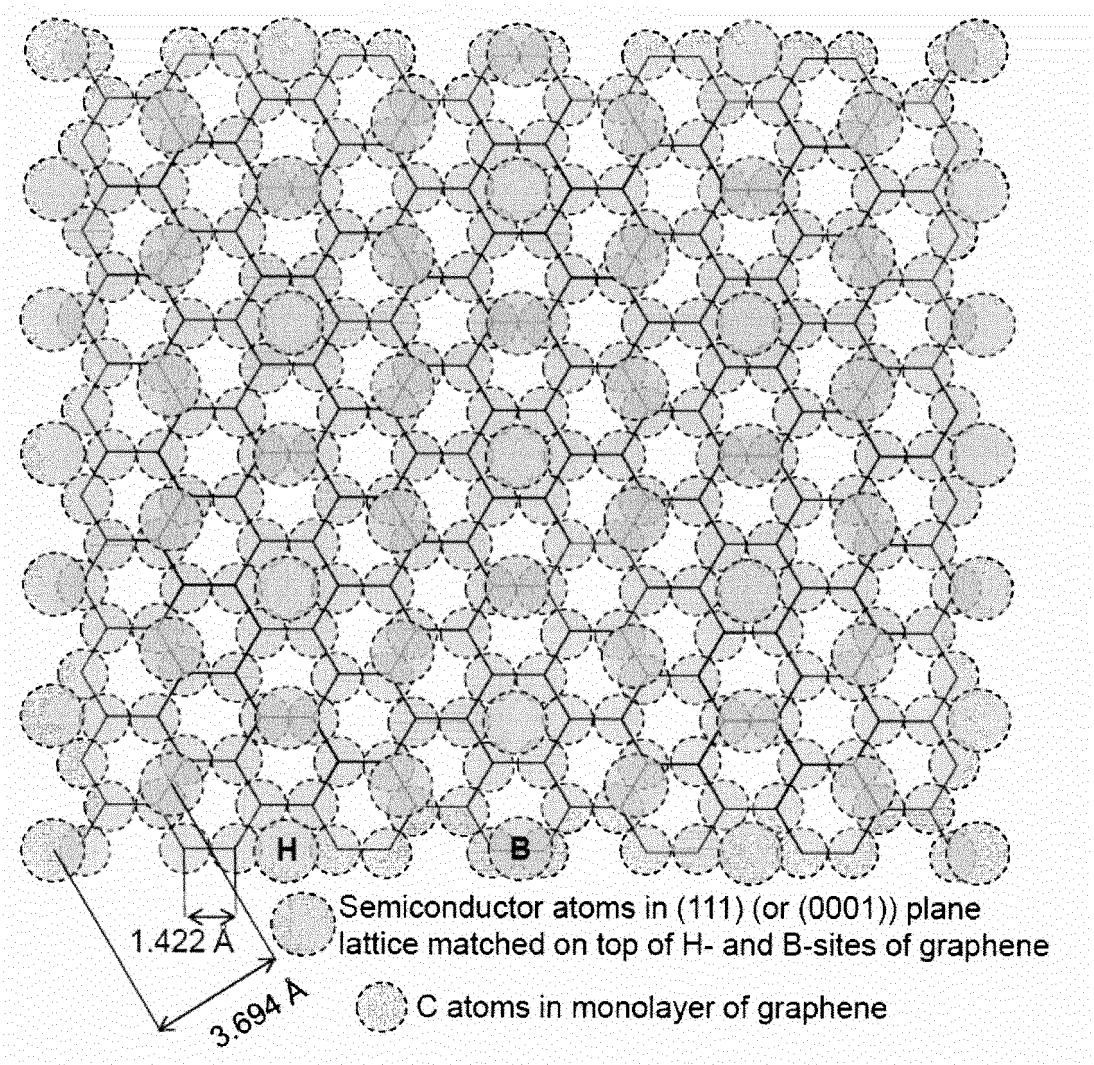

H
B
1.422 Å
3.694 Å
Semiconductor atoms in (111) (or (0001)) plane lattice matched on top of H- and B-sites of graphene
C atoms in monolayer of graphene

Fig. 1B

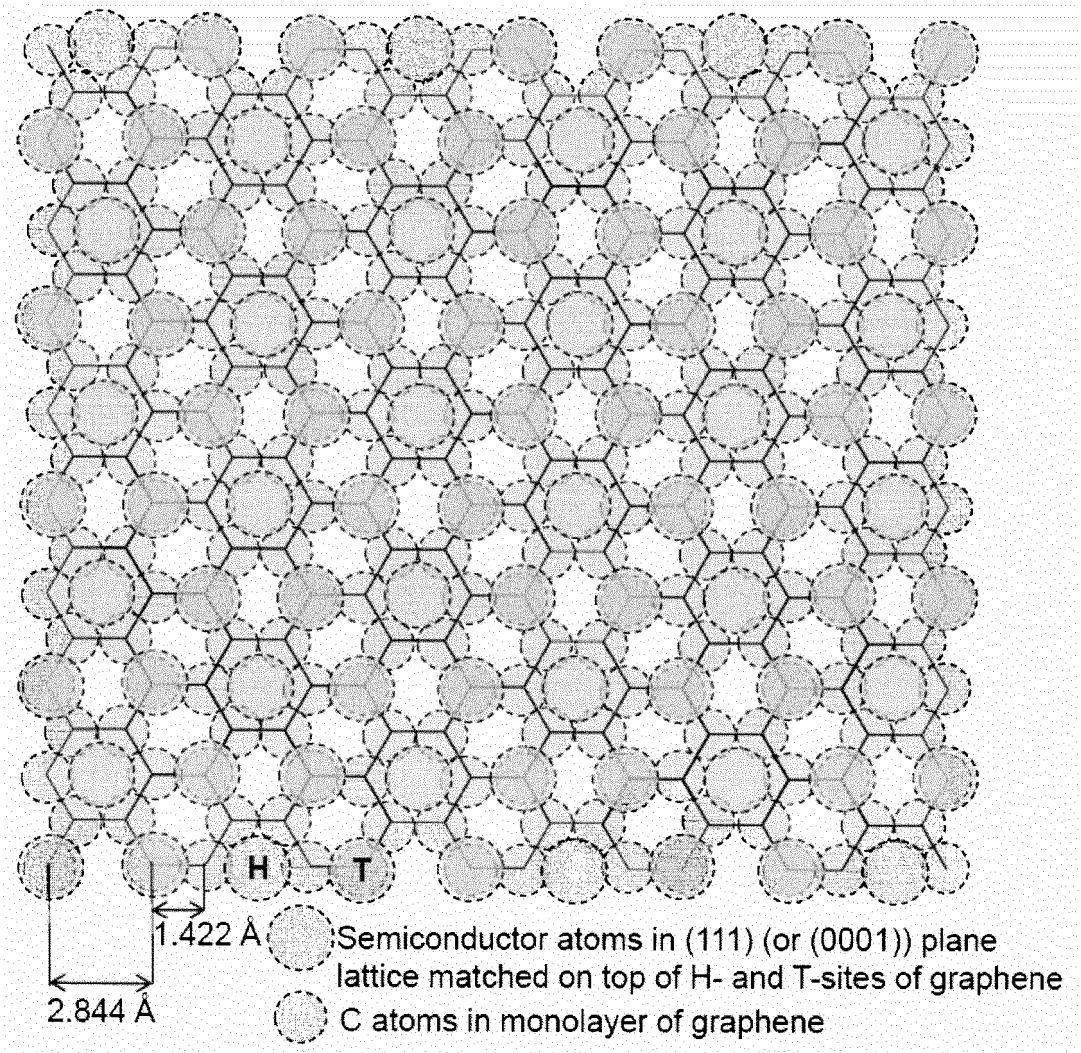

H
T
1.422 Å
2.844 Å
Semiconductor atoms in (111) (or (0001)) plane lattice matched on top of H- and T-sites of graphene
C atoms in monolayer of graphene

Fig. 1C

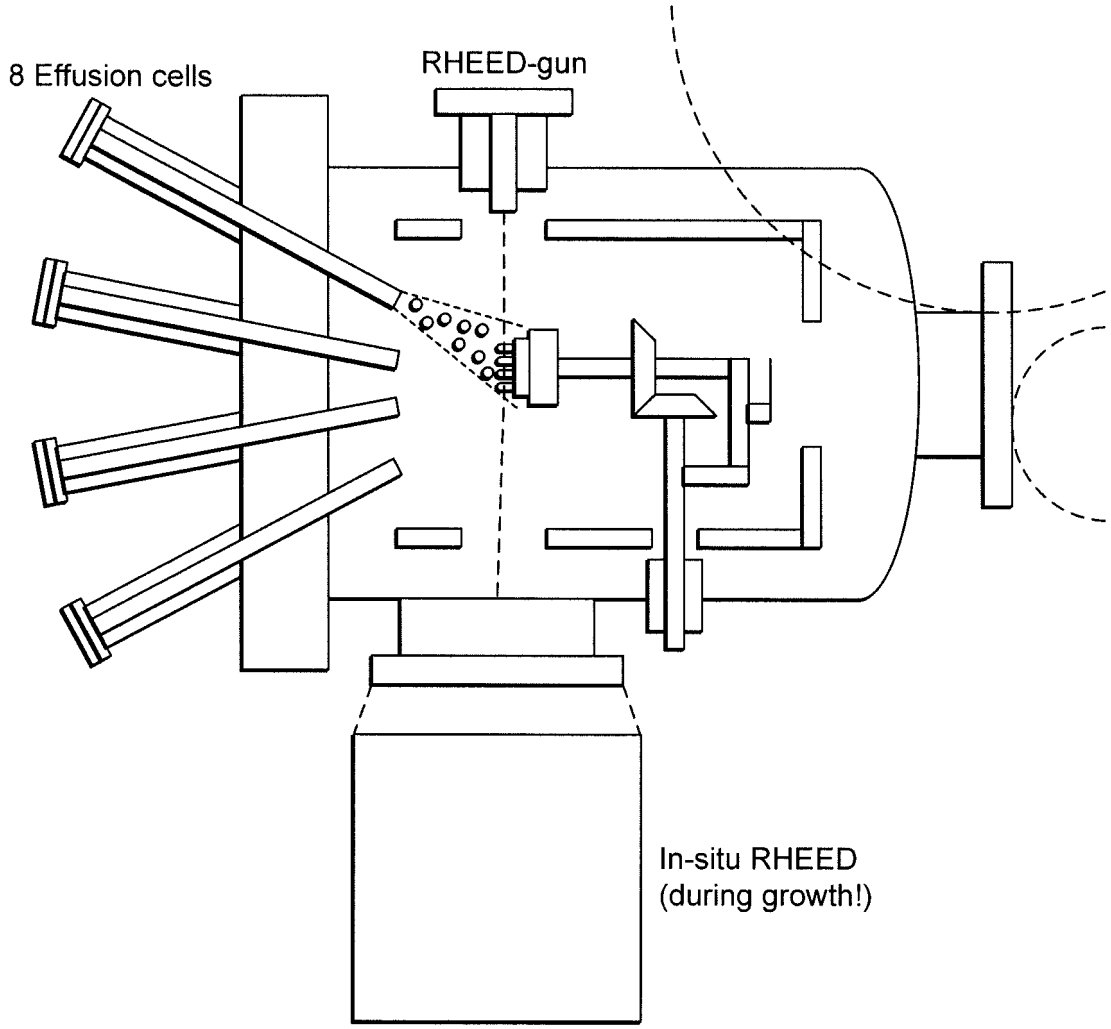


Fig. 2

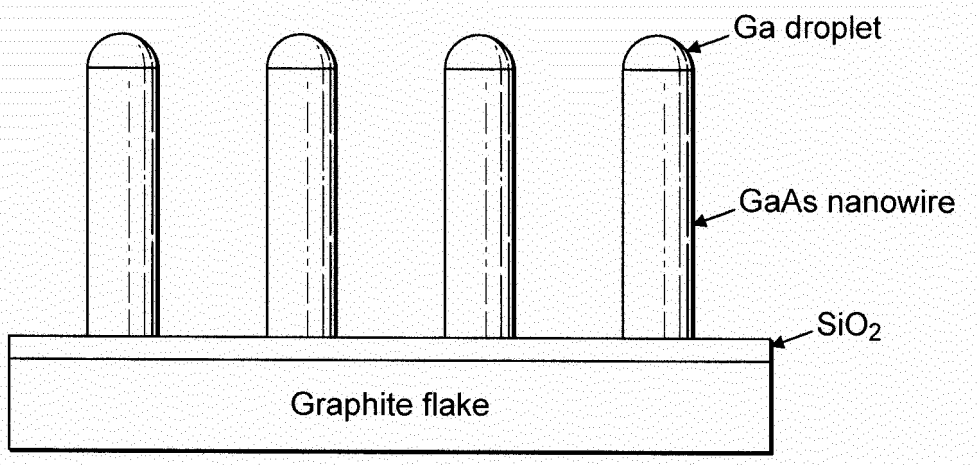


Fig. 3A

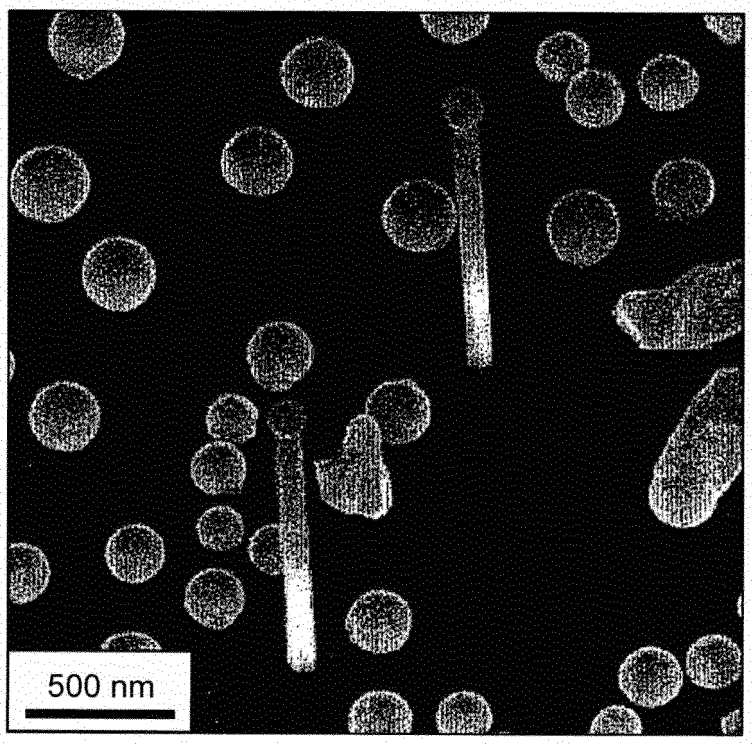


Fig. 3B

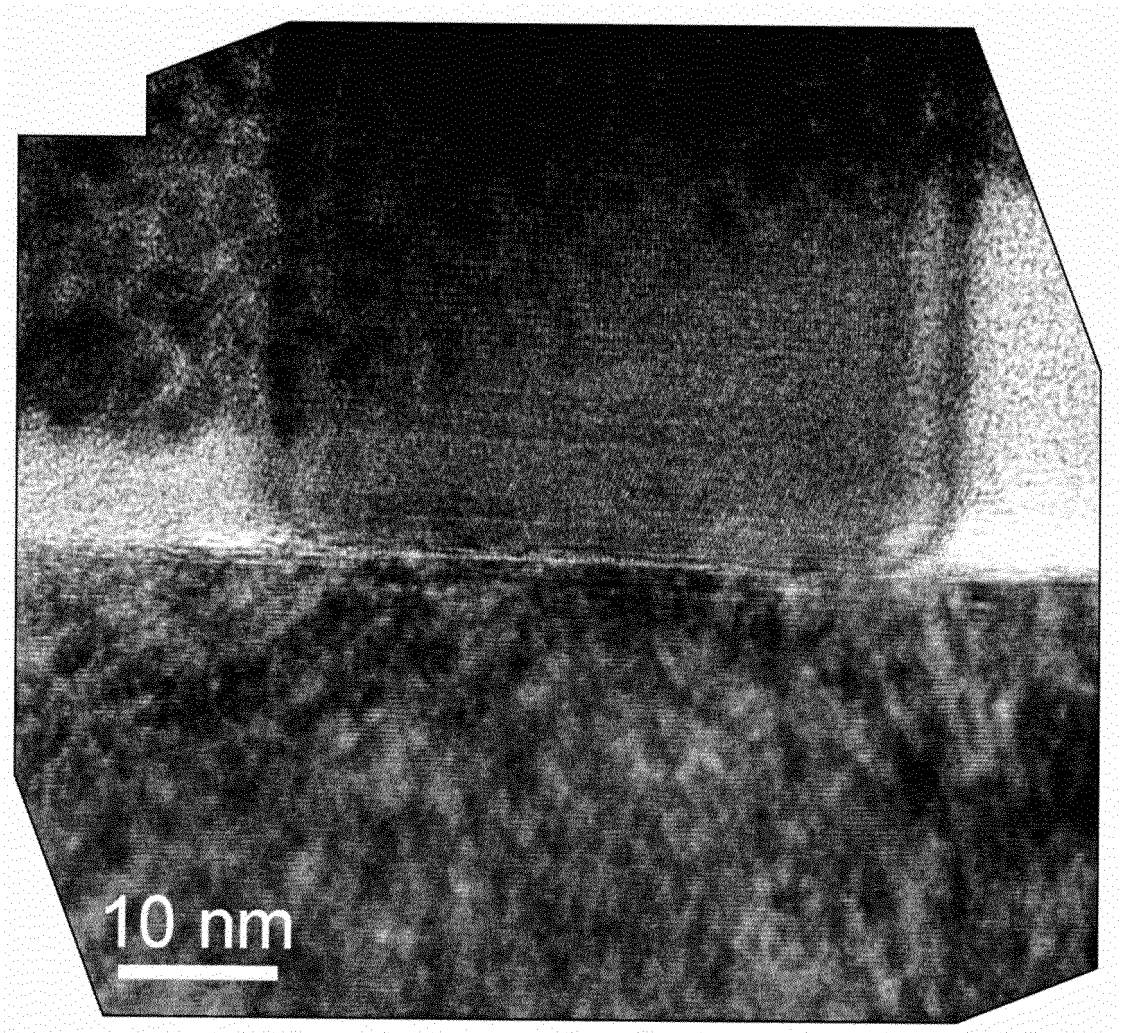


Fig. 3C

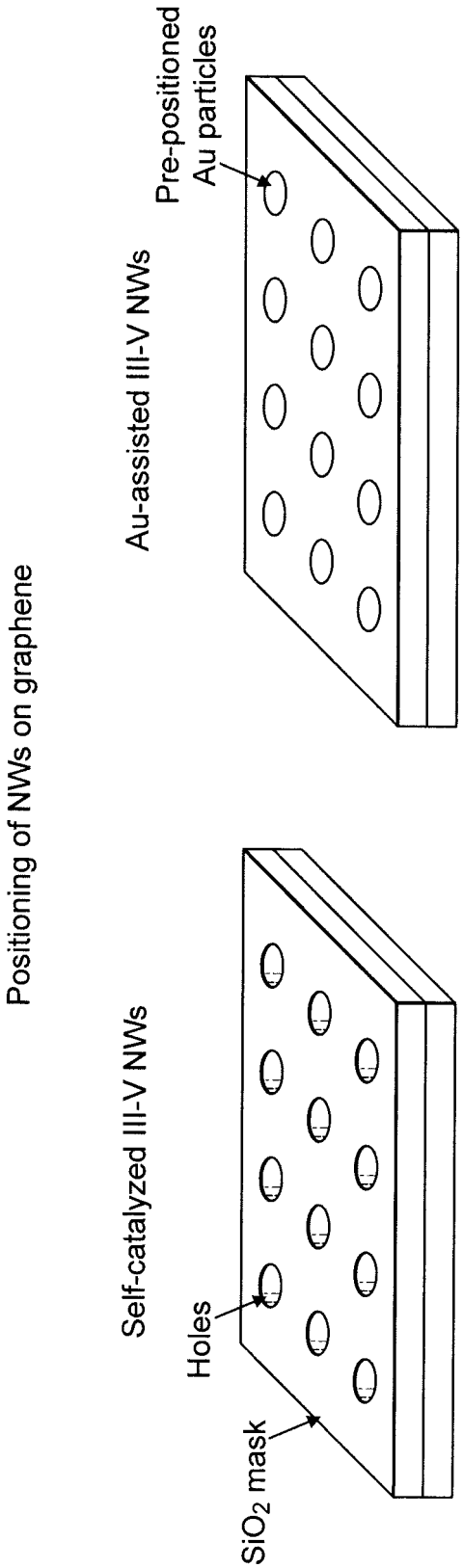

Positioning of NWs on graphene
Au-assisted III-V NWs
Pre-positioned Au particles
Self-catalyzed III-V NWs
Holes
SiO_2 mask

Fig. 4