CLAIMS

1. A transmission electron microscopy support for receiving a biological sample, the support comprising at least one support member, and comprising graphene attached to the at least one support member, characterised in that the graphene is partially hydrogenated graphene, and in which the graphene is 1 to 50% hydrogenated graphene.

2. A support according to Claim 1 in which the graphene is 1% to 10% hydrogenated graphene.

3. A support according to Claim 2 in which the graphene is 3% to 10% hydrogenated graphene, preferably 5% hydrogenated graphene.

4. A support according to Claim 1, 2 or 3 in which the at least one support member is attached to a support film, and the graphene is attached to the support film.

5. A support according to Claim 4 in which the support film comprises carbon.

6. A support according to any preceding claim in which the partially hydrogenated graphene comprises at least a first area of graphene and at least one further area of graphene, in which the first area is hydrogenated to a first hydrogenation value, and the at least one further area is hydrogenated to a different hydrogenation value.

7. A support according to any preceding claim further comprising a biological molecule adsorbed to the partially hydrogenated graphene.

8. Use of a partially hydrogenated graphene surface to support a biological molecule for electron microscopy.

9. A method for making a partially hydrogenated graphene, in which the graphene is 1% to 10% hydrogenated graphene, the method comprising applying a hydrogen ion or hydrogen atom to the surface of graphene, characterised in that the hydrogen ion or hydrogen atom is applied at an energy in the range 1 to 21 eV.

10. A method according to Claim 9, in which the energy is in the range 1 to 14 eV.

11. A method according to Claim 9 or 10, in which the hydrogen ion or hydrogen atom is applied in the form of hydrogen plasma.

12. A method according to Claim 11, in which the graphene is contacted with the hydrogen plasma for 11 to 80 seconds.

13. A method according to Claim 12, in which the graphene is contacted with the hydrogen plasma for 18 to 22 seconds.

14. A method according to any of Claims 9 to 13 in which the graphene is graphene mounted on an electron microscopy support.

15. Partially hydrogenated graphene obtained by a method according to any of Claims 9 to 14.

16. Use of a hydrogen plasma at an energy in the range 1 to 14 eV for preparation of graphene for use in electron microscopy.

17. Use according to Claim 16 in which the graphene is prepared by partial hydrogenation.

18. A method of imaging a biological sample, the method comprising:

configuring the biological sample on a support according to any one of Claims 1 to 7, arranging the support in an electron beam of an electron microscope, and collecting image data.

19. An imaging apparatus operable to provide an electron microscopy image of a biological sample, the apparatus comprising:

a biological sample mounted on a support according to any one of Claims 1 to 7, an electron beam of an electron microscope arranged to be incident on the support, and a collection device operable to collect image data.