

WHAT IS CLAIMED IS:

1. A method for producing a spheroidized powder from a silica source, the method comprising:

introducing silica source feed material into a microwave plasma torch; and

melting and spheroidizing the silica source feed material within a plasma generated by the microwave plasma torch to form a spheroidized powder.

2. The method of Claim 1, further comprising forming an anode from the spheroidized powder.

3. The method of Claim 2, further comprising forming a battery from the anode.

4. The method of Claim 1, wherein high energy milling is not used.

5. The method of Claim 1, wherein lithographic processing is not used.

6. The method of Claim 1, wherein the silicon spheroidized powder is Si or SiO_x.

7. The method of Claim 1, wherein the silica source feed material is a diatom.

8. The method of Claim 1, wherein the silica source feed material is a silica colloid.

9. The method of Claim 1, wherein the silica source feed material is fumed silica.

10. The method of Claim 1, wherein the microwave plasma torch uses a gas selected from the group consisting of hydrogen, oxygen, argon, carbon monoxide and methane.

11. The method of Claim 10, wherein the gas is under high pressure.

12. A spheroidized powder formed by a process comprising:

introducing silica source feed material into a microwave plasma torch; and

melting and spheroidizing the silica source feed material within a plasma generated by the microwave plasma torch to form a spheroidized powder.

13. A method for reducing silica materials using a plasma, the method comprising

introducing silica source feed material into a microwave plasma torch;

introducing a reducing gas into the microwave plasma torch; and

melting and spheroidizing the silica source feed material within a plasma generated by the microwave plasma torch to form a spheroidized powder.

14. A method for reducing silica materials using a plasma, the method comprising

introducing silica source feed material into a microwave plasma torch, the

silica source contacted with one or more solid reducing agents;

introducing a reducing gas into the microwave plasma torch; and

melting and spheroidizing the silica source feed material within a plasma generated by the microwave plasma torch to form a spheroidized powder.

15. The method of Claim 14, wherein the plasma is generated by a microwave source via a torch.

16. The method of Claim 14, wherein the silica materials compounded with the one or more solid reducing agents.

17. The method of Claim 16, wherein the one or more solid reducing agents comprise carbon.

18. The method of Claim 16, wherein the one or more solid reducing agents comprise metal.

19. The method of Claim 14, wherein a metal catalyst is added to silica source feed material prior to introducing the silica source feed material into the microwave plasma source.

20. The method of Claim 14, wherein a salt composition formulated to melt in the plasma is added to the microwave plasma torch.