IN THE CLAIMS

1. A method of making a polyetherimide comprising:

combining a bisphenol A dianhydride, p-phenylene diamine and a halogenated aromatic solvent to form a reactant solution;

heating the reactant solution to a temperature of 205°C to 330 °C at a pressure sufficient to prevent boiling to afford a reaction solution;

removing water from the reaction solution;

maintaining the reaction solution at a temperature of 205°C to 330°C and a pressure sufficient to prevent boiling for 10 minutes to 5 hours to form a product mixture comprising the polyetherimide and solvent; and

isolating the polyetherimide.

2. A method of making a polyetherimide comprising:

combining bisphenol A dianhydride and a halogenated aromatic solvent to form a reactant solution;

heating the reactant solution to a temperature of 205 °C to 330 °C at a pressure sufficient to prevent boiling,

adding p-phenylene diamine to the heated pressurized reactant solution at a temperature of 205 °C to 330 °C and a pressure sufficient to prevent boiling to form a reaction solution;

maintaining the reaction solution at a temperature of 205 °C to 330 °C and a pressure sufficient to prevent boiling to afford a product mixture comprising the polyetherimide and solvent; and

isolating the polyetherimide.

3. The method of claim 1, wherein the reactant solution has a solids content of 10 to 60%.

4. The method of claim 2, wherein the p-phenylene diamine is added from below the surface of the reactant solution.

5. The method of claim 1, further comprising combining a chain stopper with the bisphenol A dianhydride, p-phenylene diamine and a halogenated aromatic solvent.

6. A method of making a polyetherimide comprising:

combining a bisphenol A dianhydride, p-phenylene diamine and a halogenated aromatic solvent to form a reactant solution;

heating the reactant solution to reflux and removing water to afford a reaction slurry;

heating the reactant slurry to a temperature of 205°C to 330 °C at a pressure to afford a reaction solution;

removing water from the reaction solution;

maintaining the reaction solution at a temperature of 205°C to 330°C and a pressure sufficient to prevent boiling for 10 minutes to 5 hours to form a product mixture comprising the polyetherimide and solvent; and

isolating the polyetherimide.

7. The method of claim 6, wherein the reactant solution has a solids content of 10 to 60%.

8. The method of claim 6, wherein the reactant slurry is heated to a temperature of 220 to 260°C and the reaction slurry is maintained at a temperature of 220 to 260 °C.

9. The method of claim 6, further comprising combining a chain stopper with the bisphenol A dianhydride, p-phenylene diamine and a halogenated aromatic solvent.

10. The method of claim1, wherein the product mixture is cooled to precipitate the polyetherimide, and the polyetherimide is isolated by filtration, centrifugation or a combination comprising at least one of the foregoing.

11. The method of claim 1, wherein the polyetherimide is isolated using a devolatizing extruder.

12. The method of claim 1, wherein the polyetherimide is isolated using an agitated thin film evaporator.

13. The method of claim 2, wherein the reactant solution has a solids content of 10 to 60%.

14. The method of claim 2, further comprising combining a chain stopper with the bisphenol A dianhydride, p-phenylene diamine and a halogenated aromatic solvent.

15. The method of claim 2, wherein the product mixture is cooled to precipitate the polyetherimide, and the polyetherimide is isolated by filtration, centrifugation or a combination comprising at least one of the foregoing.

16. The method of claim 2, wherein the polyetherimide is isolated using a devolatizing extruder.

17. The method of claim 2, wherein the polyetherimide is isolated using an agitated thin film evaporator.

18. The method of claim 6, wherein the product mixture is cooled to precipitate the polyetherimide, and the polyetherimide is isolated by filtration, centrifugation or a combination comprising at least one of the foregoing.

19. The method of claim 6, wherein the polyetherimide is isolated using a devolatizing extruder.

20. The method of claim 6, wherein the polyetherimide is isolated using an agitated thin film evaporator.