

CLAIMS

1. A medical device, comprising:
a body; and
a photosensitizer integrated with the body.
2. The medical device of claim 1, wherein the body is formed by a base resin, wherein the photosensitizer is compounded with the base resin.
3. The medical device of claim 2, wherein the base resin comprises polyphenylsulfone, polyurethane, or silicone.
4. The medical device of claim 2, wherein a concentration of the photosensitizer within the base resin is between 0.05% and 5%.
5. The medical device of claim 1, further comprising a coating disposed on a surface of the body, wherein the photosensitizer is disposed within the coating.
6. The medical device of claim 5, wherein a concentration of the photosensitizer within the coating is between 0.05% and 5%.
7. The medical device of claim 1, wherein the medical device comprises a catheter adapter and a catheter extending distally from the catheter adapter.
8. The medical device of claim 7, wherein the catheter is co-extruded with the photosensitizer and another material.

9. The medical device of claim 7, wherein the medical device comprises a needleless connector or a cap.
10. The medical device of claim 1, wherein the body is formed by a base resin, wherein the photosensitizer is imbibed into the base resin.
11. The vascular access device of claim 9, wherein the base resin comprises polyphenylsulfone, polyurethane, or silicone.
12. The medical device of claim 1, wherein the photosensitizer comprises methylene blue, new methylene blue, Nile blue, rose bengal, toluidine blue O, or crystal violet.
13. The medical device of claim 1, wherein the medical device comprises an ultrasound transducer.
14. The medical device of claim 1, wherein the medical device comprises a dressing.
15. A method of disinfection of a medical device, the method comprising:
providing a medical device, wherein the medical device comprises a body and a photosensitizer integrated with the body; and
administering to the photosensitizer integrated with the body of the medical device a light dose in a range of 0.5 J/cm^2 to 320 J/cm^2 , for a duration between 1 second and 1 hour.
16. The method of claim 15, further comprising integrating the photosensitizer with the body of the medical device.

17. The method of claim 16, wherein the body is formed by a base resin, wherein integrating the photosensitizer with the body of the medical device comprises compounding the photosensitizer with a base resin.
18. The method of claim 16, wherein integrating the photosensitizer with the body of the medical device comprises applying a coating on a surface of the body, wherein the photosensitizer is disposed within the coating.
19. The method of claim 16, wherein the medical device comprises a catheter adapter and a catheter extending distally from the catheter adapter, wherein integrating the photosensitizer with the body of the medical device comprises co-extruding the catheter with the photosensitizer and another material.
20. The method of claim 16, wherein the medical device comprises a base resin, wherein integrating the photosensitizer with the body of the medical device comprises imbibing the photosensitizer into the base resin.