35. The method of claim 1, wherein the graphene quantum dots constitute from about 1% to about 5% of the polymer composite by weight.

36. The method of claim 1, wherein the polymer composite is utilized in light emitting diodes.

37. The method of claim 36, wherein the graphene quantum dots in the polymer composite are utilized to generate ~~photosensitized~~ photogenerated white light from the light emitting diodes.

38. A polymer composite comprising:

(a) a polymer; and

(b) graphene quantum dots.

39. The polymer composite of claim 38, wherein the graphene quantum dots are associated with the polymer.

40. The polymer composite of claim 39, wherein the graphene quantum dots are associated with the polymer through at least one of covalent bonds, non-covalent bonds, ionic interactions, acid-base interactions, hydrogen bonding interactions, pi-stacking interactions, van der Waals interactions, adsorption, physisorption, self-assembly, stacking, packing, sequestration, and combinations thereof.

41. The polymer composite of claim 38, wherein the polymer comprises water soluble polymers.

42. The polymer composite of claim 38, wherein the polymer comprises water insoluble polymers.

43. The polymer composite of claim 38, wherein the polymer is selected from the group consisting of vinyl polymers, condensation polymers, chain-growth polymers, step-growth

61. The polymer composite of claim 60, wherein the graphene quantum dots in the polymer composite are utilized to generate ~~photosensitized~~ photogenerated white light from the light emitting diodes.