Claims

1. A method of preventing settlement of a sessile organism on a structure in water, comprising irradiating light comprising the spectrum of 409 to 412 nm to the structure.

2. The method according to Claim 1, wherein the sessile organism comprises an alga, a mussel, a wing oyster, a moss animal, a feather duster worm, a gammaridean amphipod, a sponge, a sea squirt, and a hydroid.

3. The method according to Claim 1 or 2, wherein the light comprises the spectrum of a part of 400 to 440 nm.

4. The method according to any one of Claims 1 to 3, wherein the light has a peak wavelength in the range between 409 nm and 412 nm.

5. The method according to any one of Claims 1 to 4, wherein the light has a spectral irradiance of 1.4 $\mu Wcm^{-2}nm^{-1}$ or higher between 409 nm and 412 nm at the structure.

6. The method according to any one of Claims 1 to 5, wherein the light comprises the spectrum of 400 to 420 nm.

7. The method according to any one of Claims 1 to 6, wherein an irradiance of the light is 3 Wm^{-2} or higher.

8. The method according to any one of Claims 1 to 7, wherein the light is not a laser beam.

9. The method according to any one of Claims 1 to 8, wherein the light is LED light.

10. The method according to any one of Claims 1 to 9, wherein the water is seawater.

Claims

1. A method of preventing settlement of a sessile organism on a structure in water, comprising irradiating light comprising the spectrum of 409 to 412 nm to the structure, wherein the light has a peak wavelength in the range between 409 nm and 412 nm.

2. The method according to Claim 1, wherein the sessile organism comprises an alga, a mussel, a wing oyster, a moss animal, a feather duster worm, a gammaridean amphipod, a sponge, a sea squirt, and a hydroid.

3. The method according to Claim 1 or 2, wherein the light comprises the spectrum of a part of 400 to 440 nm.

4. The method according to any one of Claims 1 to 3, wherein the light has a spectral irradiance of 1.4 $\mu Wcm^{-2}nm^{-1}$ or higher between 409 nm and 412 nm at the structure.

5. The method according to any one of Claims 1 to 4, wherein the light comprises the spectrum of 400 to 420 nm.

6. The method according to any one of Claims 1 to 5, wherein an irradiance of the light is 3 Wm^{-2} or higher.

7. The method according to any one of Claims 1 to 6, wherein the light is not a laser beam.

8. The method according to any one of Claims 1 to 7, wherein the light is LED light.

9. The method according to any one of Claims 1 to 8, wherein the water is seawater.