CLAIMS

1. A light detector, comprising:

a first light absorber configured to:

select first light from incident light, and

absorb the selected first light,

wherein the first light absorber includes one or more first features, the one or more first features including at least one of a plurality of first slits, a first mesh, and a first plate absorber, the one or more first features selective to the selected first light;

a first temperature sensor thermally coupled to the first light absorber; and

a second light absorber configured to:

select second light from the incident light, and

absorb the selected second light,

wherein the second light absorber includes one or more second features, the one or more second features including at least one of a plurality of second slits, a second mesh, and a second plate absorber, the one or more second features selective to the selected second light.

2. The light detector of claim 1, wherein the first light absorber includes the plurality of first slits oriented in a first polarizing direction, and the second light absorber includes the plurality of second slits oriented in a second polarizing direction, different from the first polarizing direction.

3. The light detector of claim 2, wherein the second polarizing direction is orthogonal to the first polarizing direction.

4. The light detector of claim 2, further comprising:

a third light absorber configured to:

select third light from the incident light, and

absorb the selected third light,

wherein the third light absorber includes a plurality of third slits oriented in a third polarizing direction orthogonal to the first polarizing direction;

a third temperature sensor thermally coupled to the third light absorber;

a fourth light absorber configured to:

select fourth light from the incident light, and

absorb the selected fourth light,

wherein the fourth light absorber includes a plurality of fourth slits oriented in a fourth polarizing direction orthogonal to the second polarizing direction; and

a fourth temperature sensor thermally coupled to the fourth light absorber.

5. The light detector of claim 2, further comprising:

a second temperature sensor thermally coupled to the second light absorber,

wherein the first and second temperature sensors are electrically coupled, and the light detector is configured to determine an angle of polarization of light absorbed by the first and second light absorbers based on a differential reading between the first and second temperature sensors.

6. The light detector of claim 1, wherein the first light absorber includes a plurality of embedded slits or polarizer lines.

7. The light detector of claim 1, wherein the plurality of first slits of the first light absorber are spaced a first distance apart, the first distance equal to a quarter of a wavelength of the selected first light.

8. The light detector of claim 1, wherein a length of an outer edge of the first light absorber is equal to a long-end wavelength of the selected first light.

9. The light detector of claim 1, wherein a distance between adjacent slits included in the plurality of first slits of the first light absorber is equal to a short-end wavelength of the selected first light.

10. The light detector of claim 1, the detector further comprising:

a third light absorber configured to:

select third light from the incident light, and

absorb the selected third light; and

a fourth light absorber configured to:

select fourth light from the incident light, and

absorb the selected fourth light,

wherein each light absorber includes a post configured to thermally couple to the first temperature sensor.

11. The light detector of claim 1, further comprising:

an encapsulation disposed on at least a portion of the first light absorber and including a transparent material.

12. The light detector of claim 1, further comprising:

an encapsulation supporting at least the first and second light absorbers.

13. The light detector of claim 1, further comprising:

a second temperature sensor thermally coupled to the second light absorber; and

a processor configured to calculate an angle of polarization of light absorbed by the first and second light absorbers based on at least information from the first and second temperature sensors.

14. The light detector of claim 1, further comprising:

a reflector having a surface facing at least one of the first and second light absorbers and spaced a distance equal to a quarter of a wavelength of the selected first light or a wavelength of the selected second light.

15. The light detector of claim 14, further comprising:

a second temperature sensor thermally coupled to the second light absorber,

wherein the reflector is thermally coupled to at least one of the first and second temperature sensors.

16. The light detector of claim 14, further comprising:

one or more structures configured to support the reflector; and

an encapsulation, the encapsulation comprising a same material as the one or more structures.

17. The light detector of claim 1, further comprising:

a first electrical insulator thermally coupled to the first light absorber and the first temperature sensor,

wherein the first electrical insulator electrically isolates the first light absorber from the second light absorber, and

further wherein the first temperature sensor thermally couples the first light absorber to the second light absorber.

18. The light detector of claim 1, wherein the first and second light absorbers are included in a plurality of light absorbers, each light absorber is a mesh, and the plurality of light absorbers form a capacitive resonant mesh.

19. A method of detecting incident light, the method comprising:

applying a first voltage to a first light absorber included in a detector;

applying a second voltage to a second light absorber included in the detector;

selectively absorbing first light from the incident light using the first light absorber, the selective absorption of the first light based on one or more first features of the first light absorber, the one or more first features including at least one of a plurality of first slits, a first mesh, and a first plate absorber;

selectively absorbing second light from the incident light using the second light absorber, the selective absorption of the first light based on one or more second features of the second light absorber, the one or more second features including at least one of a plurality of second slits, a second mesh, and a second plate absorber;

measuring a first photocurrent from the first light absorber, the first photocurrent indicative of the selectively absorbed first light;

measuring a second photocurrent from the second light absorber, the second photocurrent indicative of the selectively absorbed second light; and

determining a polarization of the incident light based on the measured first and second photocurrents.

20. The method of claim 19, wherein the second photocurrent is included in the first photocurrent, and further wherein the measurement of the first photocurrent and the measurement of the second photocurrent include determining a differential reading between the first and second photocurrents.