## CLAIMS

1. A radiation source comprising:

a nozzle configured to direct a stream of fuel droplets along a trajectory towards a plasma formation location;

a laser configured to output laser radiation, the laser radiation directed at the fuel droplets at the plasma formation location to generate, in use, a radiation generating plasma; and

a catch arranged to catch fuel droplets that pass the plasma formation location, the catch comprising:

a container constructed to contain a fluid;

a driver constructed and arranged to drive the fluid, to cause the fluid to move;

the catch being configured such that, in use, the fuel droplets are incident on an inclined surface of that moving fluid.

2. The radiation source of claim 1, wherein the catch further comprises an inclined surface, the driver being arranged to drive fluid along, over or past the surface, the catch being arranged such that, in use, the fuel droplets are incident on fluid that is driven along, over or past that inclined surface.

3. The radiation source of claim 2, wherein fluid that is driven along, over or past the inclined surface is inclined with respect to a trajectory of the droplets.

4. The radiation source of claim 3, wherein the surface is inclined relative to the trajectory of the droplets, and the driver is configured to at least assist in driving fluid down and along the inclined surface to form a film of fluid on that surface, the catch being arranged such that, in use, the fuel droplets are incident on the film of fluid.

5. The radiation source of claim 3, wherein the driver is configured to drive fluid over the inclined surface to form a wave of fluid, the catch being arranged such that, in use, the fuel droplets are incident on the wave of fluid.

6. The radiation source of any preceding claim, wherein the driver comprises a pump.

7. The radiation source of claim 1, wherein the container is substantially tube-shaped with an opening arranged to receive the droplets.

8. The radiation source of claim 7, wherein the driver is a rotating mechanism constructed to rotate the tube-shaped container.

9. The radiation source of claim 8, wherein the rotating mechanism is constructed to rotate the tube fast enough to ensure that fluid resides on, and/or passes over, an internal inclined surface of the tube-shaped container, the catch being arranged such that, in use, the fuel droplets are incident on fluid that resides on and/or passes over the internal inclined surface of the tube-shaped container.

10. The radiation source of any preceding claim, wherein the nozzle is configured to direct the stream of fuel droplets along a trajectory that is substantially horizontal, or which is substantially vertical, or in a trajectory that has a horizontal component, or in a trajectory that has a vertical component.

11. The radiation source of any preceding claim, wherein the fluid is, or comprises, the same material as that which forms the fuel droplets, or wherein the fluid is a carrier for the fuel.

12. The radiation source of any preceding claim, wherein the catch comprises, or is thermally connectable to, a heater, the heater being configured to heat the fluid, and/or caught droplets, to maintain the fluid, and/or caught droplets, in a fluid form.

13. The radiation source of any preceding claim, wherein the catch is in fluid connection with the nozzle, such that caught droplets may be directed to and back through the nozzle.

14. A lithographic apparatus comprising:

an illumination system constructed to provide a radiation beam;

a patterning device constructed to impart the radiation beam with a pattern in its cross-section;

a substrate holder constructed and arranged to hold a substrate;

a projection system constructed and arranged to project the patterned radiation beam onto a target portion of the substrate, and

wherein the lithographic apparatus further comprises, or is in connection with, the radiation source of any preceding claim.

15. A method of catching fuel droplets used in a radiation source, the radiation source comprising:

a nozzle configured to direct a stream of fuel droplets along a trajectory towards a plasma formation location;

a laser configured to output laser radiation, the laser radiation directed at the fuel droplets at the plasma formation location to generate, in use, a radiation generating plasma; and

the method comprising:

driving a fluid to cause movement in that fluid; and

directing the fuel droplets toward an inclined surface of that moving fluid.

## CLAIMS

1. A radiation source comprising:

a nozzle configured to direct a stream of fuel droplets along a trajectory towards a plasma formation location;

a laser configured to output laser radiation, the laser radiation directed at the fuel droplets at the plasma formation location to generate, in use, a radiation generating plasma; and

a catch arranged to catch fuel droplets that pass the plasma formation location, the catch comprising:

a container constructed to contain a fluid;

a driver constructed and arranged to drive the fluid, to cause the fluid to move;

the catch being configured such that, in use, the fuel droplets are incident on an inclined surface of the fluid moved by the driver.

2. The radiation source of claim 1, wherein the catch further comprises an inclined surface, the driver being arranged to drive fluid along, over or past the inclined surface, the catch being arranged such that, in use, the fuel droplets are incident on fluid that is driven along, over or past that inclined surface.

3. The radiation source of claim 2, wherein fluid that is driven along, over or past the inclined surface is inclined with respect to a trajectory of the droplets.

4. The radiation source of claim 3, wherein the surface is inclined relative to the trajectory of the droplets, and the driver is configured to at least assist in driving fluid down and along the inclined surface to form a film of fluid on that surface, the catch being arranged such that, in use, the fuel droplets are incident on the film of fluid.

5. The radiation source of claim 3, wherein the driver is configured to drive fluid over the inclined surface to form a wave of fluid, the catch being arranged such that, in use, the fuel droplets are incident on the wave of fluid.

6. The radiation source of claim 1, wherein the driver comprises a pump.

7. The radiation source of claim 1, wherein the container is substantially tube-shaped with an opening arranged to receive the droplets.

8. The radiation source of claim 7, wherein the driver is a rotating mechanism constructed to rotate the tube-shaped container.

9. The radiation source of claim 8, wherein the rotating mechanism is constructed to rotate the tube fast enough to ensure that fluid resides on, and/or passes over, an internal inclined surface of the tube-shaped container, the catch being arranged such that, in use, the fuel droplets are incident on fluid that resides on and/or passes over the internal inclined surface of the tube-shaped container.

10. The radiation source of claim 1, wherein the nozzle is configured to direct the stream of fuel droplets along a trajectory that is substantially horizontal, or which is substantially vertical, or in a trajectory that has a horizontal component, or in a trajectory that has a vertical component.

11. The radiation source of claim 1, wherein the fluid is, or comprises, the same material as that which forms the fuel droplets, or wherein the fluid is a carrier for the fuel.

12. The radiation source of claim 1, wherein the catch comprises, or is thermally connectable to, a heater, the heater being configured to heat the fluid, and/or caught droplets, to maintain the fluid, and/or caught droplets, in a fluid form.

13. The radiation source of claim 1, wherein the catch is in fluid connection with the nozzle, such that caught droplets may be directed to and back through the nozzle.

14. A lithographic apparatus comprising:

an illumination system constructed to provide a radiation beam;

a patterning device constructed to impart the radiation beam with a pattern in its cross-section;

a substrate holder constructed and arranged to hold a substrate;

a projection system constructed and arranged to project the patterned radiation beam onto a target portion of the substrate, and

wherein the lithographic apparatus further comprises, or is in connection with, a radiation source comprising

a nozzle configured to direct a stream of fuel droplets along a trajectory towards a plasma formation location;

a laser configured to output laser radiation, the laser radiation directed at the fuel droplets at the plasma formation location to generate, in use, a radiation generating plasma; and

a catch arranged to catch the fuel droplets that pass the plasma formation location, the catch comprising

a container constructed to contain a fluid; and

a driver constructed and arranged to drive the fluid, to cause the fluid to move;

the catch being configured such that, in use, the fuel droplets are incident on an inclined surface of the fluid moved by the driver.

15. A method of catching fuel droplets used in a radiation source, the radiation source comprising:

a nozzle configured to direct a stream of fuel droplets along a trajectory towards a plasma formation location;

a laser configured to output laser radiation, the laser radiation directed at the fuel droplets at the plasma formation location to generate, in use, a radiation generating plasma; and

the method comprising:

driving a fluid to cause movement in that fluid; and

directing the fuel droplets toward an inclined surface of the fluid moved by the driver.