CLAIMS

1. A microreactor system comprising:

a microreactor that has two inflow ports into which fluids are introduced and a flow path configured to merge the fluids, and that is configured to mix a first fluid introduced from one of the inflow ports and a second fluid introduced from the other of the inflow ports in the flow path;

a first container in which the first fluid is prepared;

a second container in which the second fluid is prepared;

a first pump configured to feed the first fluid toward the inflow port;

a second pump configured to feed the second fluid toward the inflow port;

a first measurement unit configured to measure an amount of the first fluid in the first container;

a second measurement unit configured to measure an amount of the second fluid in the second container; and

a switching unit configured to switch, based on information measured by the first measurement unit and the second measurement unit, at least one of the first fluid and the second fluid to be fed to the microreactor to at least one and no more than two different fluid(s), wherein the at least one and no more than two different fluid(s) is or are

different from the first fluid and the second fluid.

2. The microreactor system according to claim 1, wherein, after feeding of the first fluid by the first pump is started and the second fluid by the second pump is started, the switching unit is configured to:

switch the first fluid to the at least one and no more than two different fluid(s) when the first measurement unit measures that the first fluid in the first container is exhausted; and

switch the second fluid to the at least one and no more than two different fluid(s) when the second measurement unit measures that the second fluid in the second container is exhausted.

3. The microreactor system according to claim 1, wherein, after feeding of the first fluid by the first pump is started and the second fluid by the second pump is started, the switching unit is configured to switch the first fluid and the second fluid to the at least one and no more than two different fluid(s) when either:

the first measurement unit measures that the first fluid in the first container is exhausted; or

the second measurement unit measures that the second fluid in the second container is exhausted.

4. The microreactor system according to claim 1, wherein,

after feeding of the first fluid by the first pump is started and the second fluid by the second pump is started, the switching unit is configured to:

when it is measured that the fluid in one of the first container and the second container is exhausted, switch the fluid to the at least one and no more than two different fluid(s); and

after the fluid that is first exhausted is switched, when it is measured that the fluid in the other of the containers is exhausted, switch the fluid to the at least one and no more than two different fluid(s).

5. The microreactor system according to claim 1,

(a) wherein the at least one and no more than two different fluid(s) includes a third fluid and a fourth fluid;

(b) wherein the system further comprises:

(i) a third container in which the third fluid is prepared; and

(ii) a fourth container in which the fourth fluid is prepared; and

(c) wherein the switching unit includes:

(i) a first switching unit configured to switch the first fluid to be fed to the microreactor to the third fluid; and

(ii) a second switching unit configured to switch the second fluid to be fed to the microreactor to the fourth fluid.

6. The microreactor system according to claim 1,

(a) wherein the at least one and no more than two different fluid(s) includes a third fluid;

(b) wherein the system further comprises a third container in which the third fluid is prepared; and

(c) wherein the switching unit includes:

(i) a first switching unit configured to switch the first fluid to be fed to the microreactor to the third fluid; and

(ii) a second switching unit configured to switch the second fluid to be fed to the microreactor to the third fluid.

7. The microreactor system according to any one of claims 1 to 6, further comprising, downstream of the microreactor, a component measurement unit configured to measure an amount of a component in a mixed fluid in the microreactor.

8. The microreactor system according to any one of claims 1 to 6, further comprising, connected downstream from the microreactor:

a collection container configured to collect a mixed

fluid; and

a disposal container in which a fluid is disposed.

9. The microreactor system according to any one of claims 1 to 6, further comprising one or more of the containers supported by a rack in which a lower side of the one or more containers is configured to open and discharge the fluid in a vertically downward direction.

10. The microreactor system according to claim 1, wherein the at least one and no more than two different fluid(s) does not react with components contained in the first fluid and the second fluid.

11. The microreactor system according to claim 1, wherein:

the at least one and no more than two different fluid(s) is not compatible with the first fluid and the second fluid; and

the at least one and no more than two different fluid(s) is separated from the first fluid and the second fluid in a two-phase state.

12. A microreactor system comprising:

(a) a first microreactor with a first outflow, a second microreactor with a second outflow, a third microreactor with a third outflow, and a fourth microreactor with a

fourth outflow,

(i) wherein the first microreactor is configured to create a first mixed fluid from: (1) either a first fluid from a first container or a different fluid from a different container; and (2) either a second fluid from a second container or the different fluid from the different container;

(ii) wherein the second microreactor is configured to create a second mixed fluid from: (1) the first outflow of the first microreactor; and (2) either a third fluid from a third container or the different fluid from the different container;

(iii) wherein the third microreactor is configured to create a third mixed fluid from: (1) the second outflow of the second microreactor; and (2) either a fourth fluid from a fourth container or the different fluid from the different container; and

(iv) wherein the fourth microreactor is configured to create a fourth mixed fluid from: (1) the third outflow of the third microreactor; and (2) either a fifth fluid from a fifth container or the different fluid from the different container;

(b) a first measurement unit configured to measure a first amount of the first fluid in the first container, a second measurement unit configured to measure a second amount of the second fluid in the second container, a third

measurement unit configured to measure a third amount of the third fluid in the third container, a fourth measurement unit configured to measure a fourth amount of the fourth fluid in the fourth container, and a fifth measurement unit configured to measure a fifth amount of the fifth fluid in the fifth container; and

(c) a first switching unit and a second switching unit for the first microreactor, a third switching unit for the second microreactor, a fourth switching unit for the third microreactor, and a fifth switching unit for the fourth microreactor,

(i) wherein the first switching unit is configured, based on information from the first measurement unit, to either delivery the first fluid from the first container or the different fluid from the different container to the first microreactor;

(ii) wherein the second switching unit is configured, based on information from the second measurement unit, to either delivery the second fluid from the second container or the different fluid from the different container to the first microreactor;

(iii) wherein the third switching unit is configured, based on information from the third measurement unit, to either delivery the third fluid from the third container or the different fluid from the different container to the second microreactor;

(iv) wherein the fourth switching unit is configured, based on information from the fourth measurement unit, to either delivery the fourth fluid from the fourth container or the different fluid from the different container to the third microreactor; and

(v) wherein the fifth switching unit is configured, based on information from the fifth measurement unit, to either delivery the fifth fluid from the fifth container or the different fluid from the different container to the fourth microreactor.

13. The microreactor system according to claim 12, wherein the different fluid does not react with components contained in the first fluid and the second fluid.

14. The microreactor system according to claim 12, wherein:

the different fluid is not compatible with the first fluid and the second fluid; and

the different fluid is separated from the first fluid and the second fluid in a two-phase state.