CLAIMS

1. A coating and developing apparatus that transfers substrates, which have been carried by a carrier into a carrier block, to a processing block, forms coating films containing a resist film on each substrate in the processing block, transports the substrates to the exposure apparatus via an interface block positioned on a side opposite to the carrier block, develops the substrates after exposure, which have returned via the interface block, in the processing block, and transfers the substrates to the carrier block, wherein:

(a) the processing block includes:

a coating treatment stack comprising a plurality of coating treatment unit blocks vertically stacked on top of each other, each of the coating treatment unit blocks including: a liquid treatment module that supplies a chemical liquid for forming the coating film onto each substrate; a heating module that heats each substrate having been coated with the chemical liquid; and a unit block transport mechanism that moves on a linear transport passage connecting the carrier block and the interface block to transfer the substrates between these modules; and

a developing treatment stack comprising a plurality of developing treatment unit locks vertically stacked on top of each other, the developing treatment stack being stacked on the coating treatment stack, each of the developing treatment unit blocks including: a liquid treatment module that supplies a developing liquid onto each substrate; a heating module that heats each substrate; and a unit block transport mechanism that moves on a linear transport passage connecting the carrier block and the interface block;

(b) the interface block is positioned on an exposure apparatus side of the processing block and includes:

a transfer unit stack comprising a plurality of transfer units arranged in a vertical direction in a multi-staged manner;

a first transfer mechanism that moves vertically to transfer the substrates among the transfer units;

a second transfer mechanism that moves vertically to transfer the substrates among the transfer units, the second transfer mechanism being positioned to laterally sandwich the transfer unit stack between the second transfer mechanism and the first transfer mechanism; and

a third transfer mechanism that transfers the substrates between the transfer unit stack and the exposure apparatus;

wherein the transfer unit stack contains transfer units for the exposure apparatus, to and from each of which the third transfer mechanism transfers the substrates, and also contains transfer units for the unit blocks, to and from each of which the substrates are transferred by the unit block transfer mechanism of the corresponding unit block; and

(c) said coating and developing system further includes a control unit for controlling transferring of the substrates in the respective blocks;

(d) the third transfer mechanism is configured to move on a movement passage for the third transfer mechanism, the movement passage including a vertical movement passage and a lateral movement passage, and formed below a first transfer mechanism elevation passage; and

(e) the transfer unit stack contains a transfer unit for transferring the substrates between the second transfer mechanism and the third transfer mechanism.

2. The coating and developing apparatus according to claim 1, wherein:

the transfer units for the exposure apparatus each includes a cooling stage that cools the substrates placed thereon; and

the substrates having been transferred from the unit block transfer mechanism of the coating treatment stack to the corresponding transfer unit is cooled by the corresponding cooling stage, and then transferred to the exposure apparatus.

3. The coating and developing apparatus according to claim 1 or 2,

wherein each of the coating treatment unit blocks constituting the coating treatment stack includes:

as the liquid treatment module, a resist film forming unit block having a resist coating module that applies a resist solution onto the substrate to form a resist film; and

as the liquid treatment module, an upper layer film forming unit block having an upper layer film coating module for forming an upper layer film on the resist film, the upper layer film forming unit block being stacked on the resist film forming unit block;

wherein the control unit is configured to control the respective transfer mechanisms such that:

each substrate having been treated by the resist coating module is transferred to the transfer unit for unit block corresponding to the resist coating unit block;

thereafter, the substrate is transferred by the first or second transfer mechanism to the transfer unit for unit block corresponding to the upper layer film forming unit block; and

thereafter, from the transfer unit for unit block, the substrate is transferred by the unit block transfer mechanism of the upper layer film forming unit block to the upper layer film forming unit block for formation of the upper layer film.

4. The coating and developing apparatus according to any one of claims 1 to 3, wherein:

the interface block includes cleaning modules for cleaning the substrate; and

as viewed from the transfer unit stack, the cleaning modules are positioned behind the first transfer mechanism to allow the substrates to be transferred to and from cleaning modules by the first transfer mechanism, and the cleaning modules are positioned behind the second transfer mechanism to allow the substrates to be transferred to and from the cleaning modules by the second transfer mechanisms, respectively.

5. The coating and developing apparatus according to claim 4, wherein:

the cleaning modules positioned behind the first transfer mechanism are cleaning modules that clean the substrate before exposure; and

the cleaning modules positioned behind the second transfer mechanism are cleaning modules that clean the substrate after exposure.