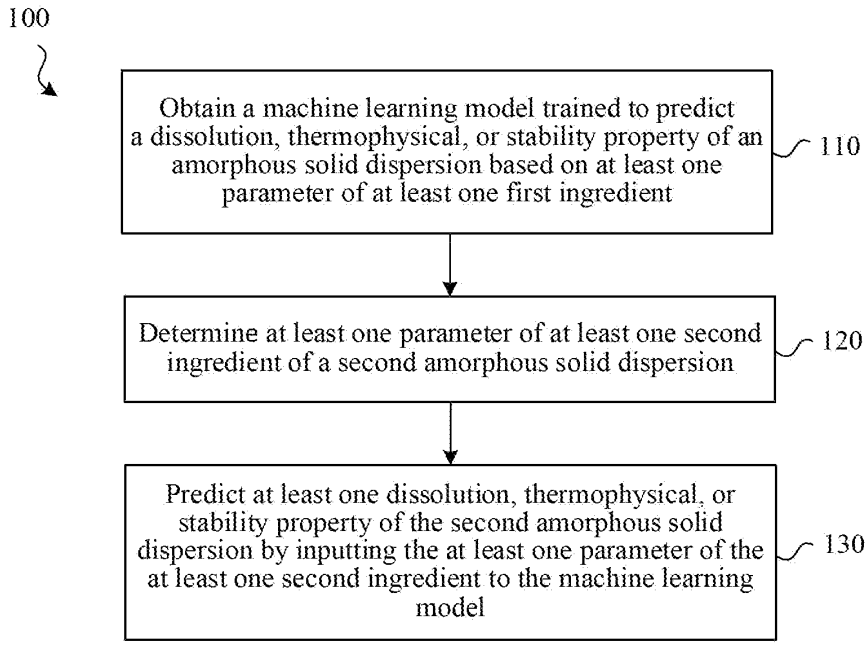

100
Obtain a machine learning model trained to predict a dissolution, thermophysical, or stability property of an amorphous solid dispersion based on at least one parameter of at least one first ingredient
110
Determine at least one parameter of at least one second ingredient of a second amorphous solid dispersion
120
Predict at least one dissolution, thermophysical, or stability property of the second amorphous solid dispersion by inputting the at least one parameter of the at least one second ingredient to the machine learning model
130

FIG. 1

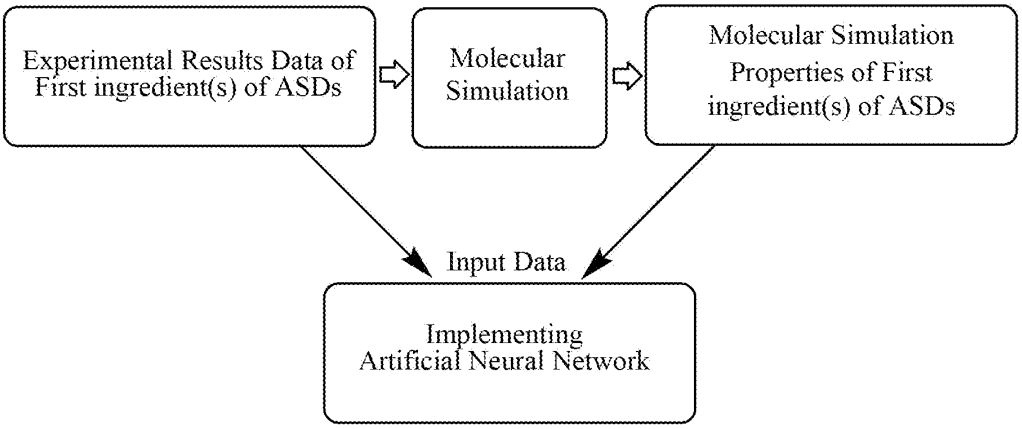

Experimental Results Data of First ingredient(s) of ASDs
Molecular Simulation
Molecular Simulation Properties of First ingredient(s) of ASDs
Input Data
Implementing Artificial Neural Network

FIG. 2A

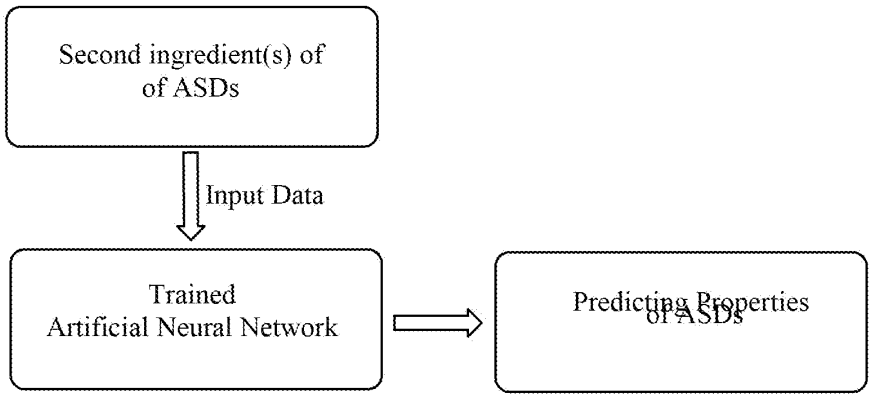

Second ingredient(s) of of ASDs
Input Data
Trained Artificial Neural Network
Predicting Properties of ASDs

FIG. 2B

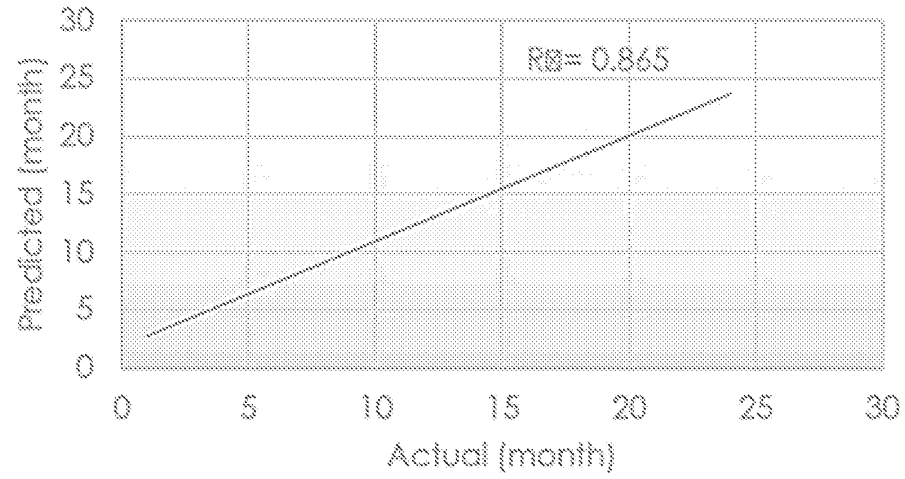

R2= 0.865
Predicted (month)
Actual (month)
0
5
10
15
20
25
30

FIG. 3

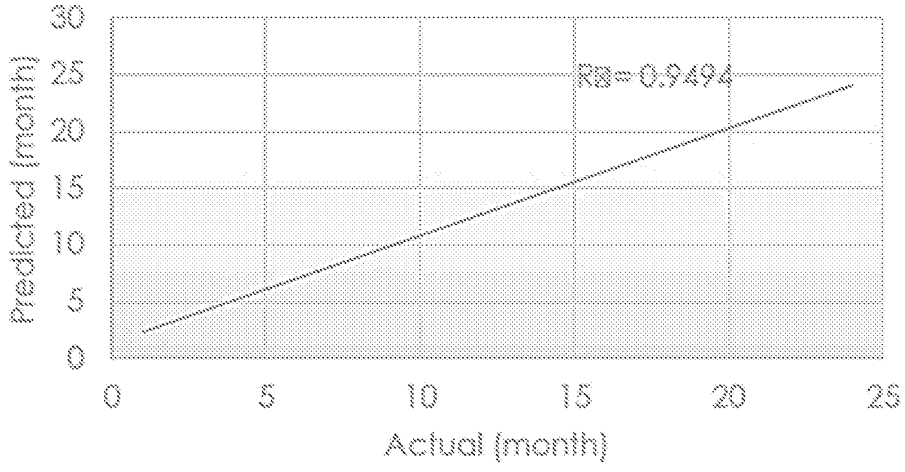

R2= 0.9494
Predicted (month)
Actual (month)
0
5
10
15
20
25
30

FIG. 4

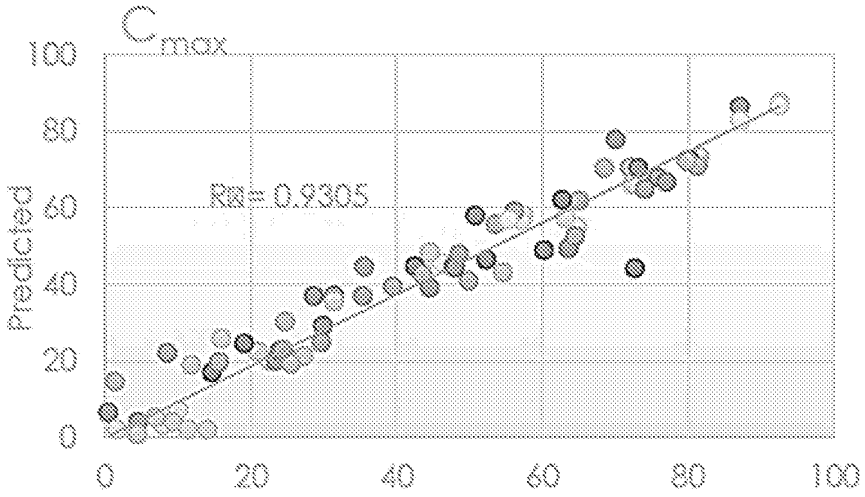

C_{max}
Predicted
Actual
R^2= 0.9305
0
20
40
60
80
100

FIG. 5

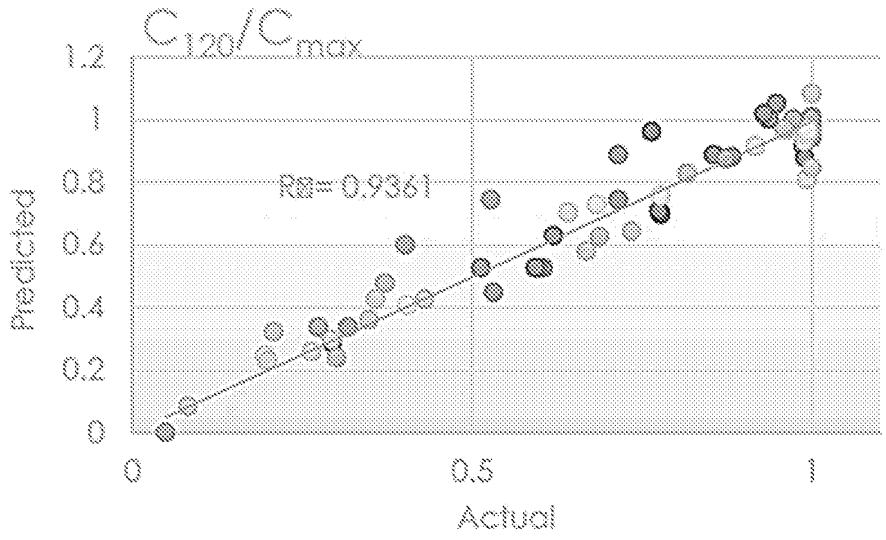

C_{120}/C_{max}
Predicted
Actual
R^2= 0.9361
0
0.2
0.4
0.6
0.8
1
1.2
0.5

FIG. 6

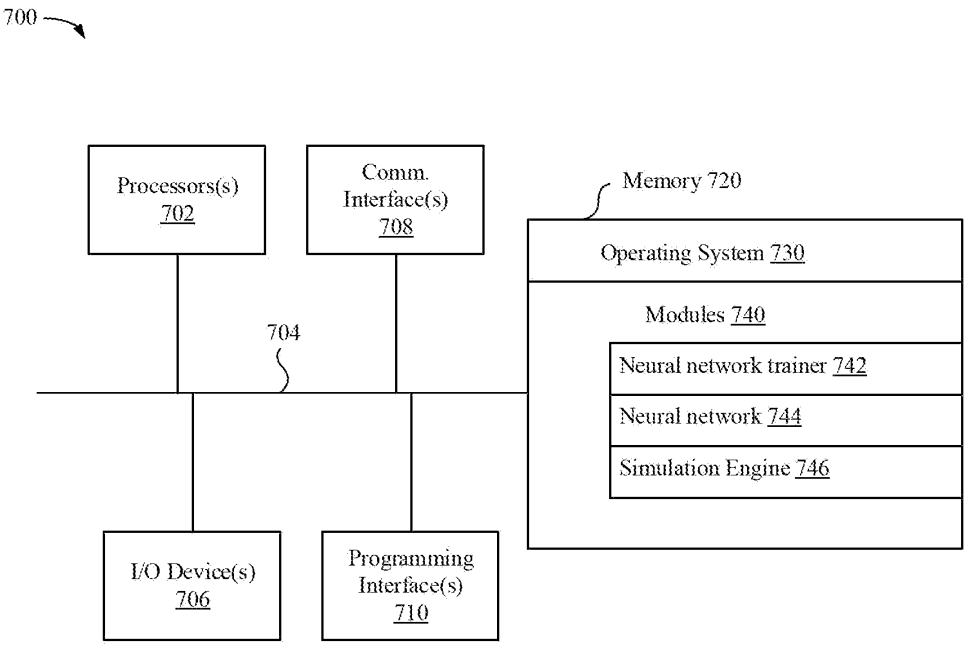

700
Processors(s)
702
Comm.
Interface(s)
708
Memory 720
Operating System 730
Modules 740
704
Neural network trainer 742
Neural network 744
Simulation Engine 746
I/O Device(s)
706
Programming
Interface(s)
710

FIG. 7