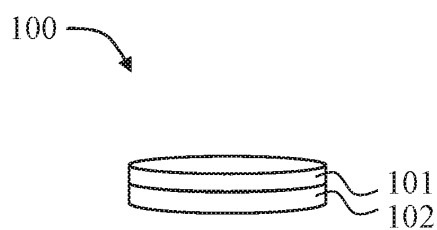
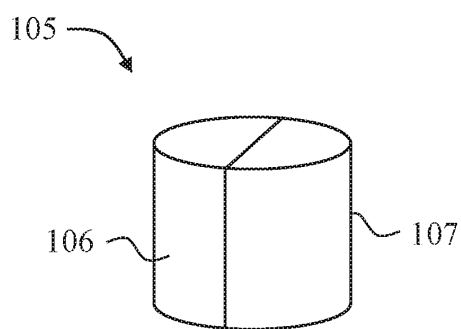
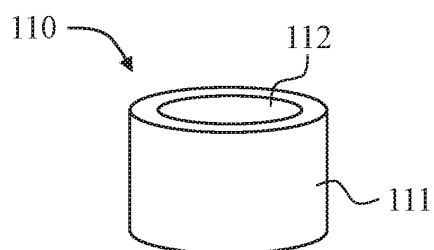
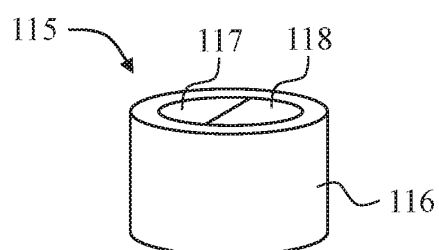
**FIG. 1A****FIG. 1B****FIG. 1C****FIG. 1D****FIG. 1E**

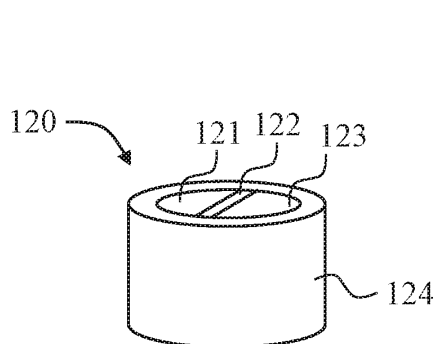


FIG. 1F

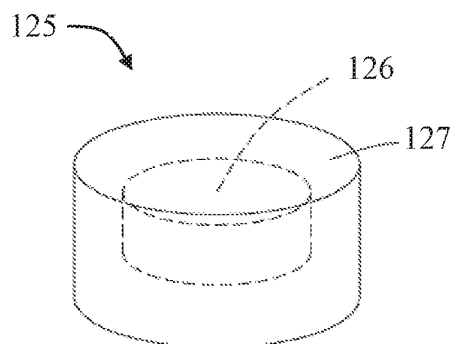


FIG. 1G

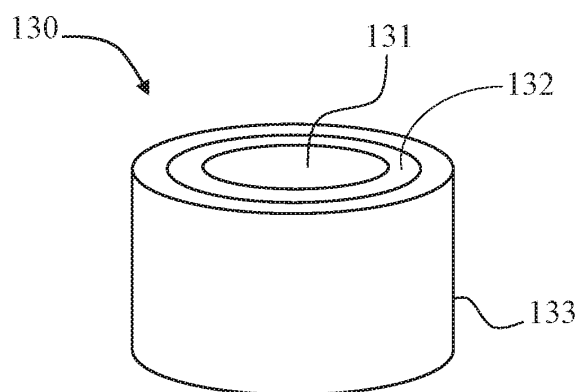


FIG. 1H

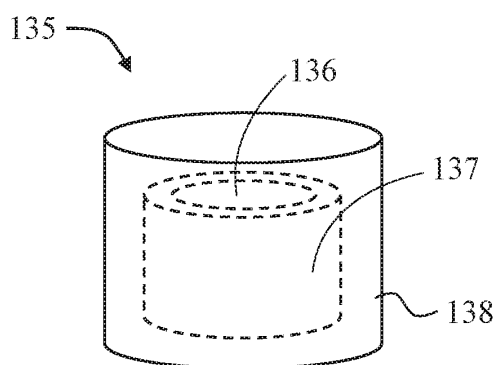


FIG. 1I

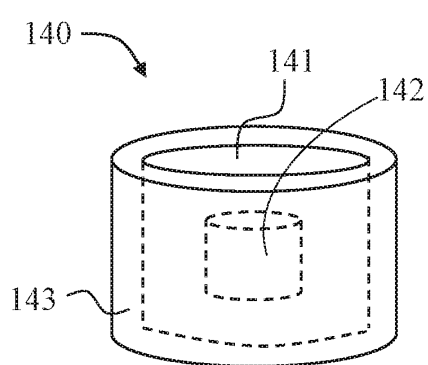


FIG. 1J

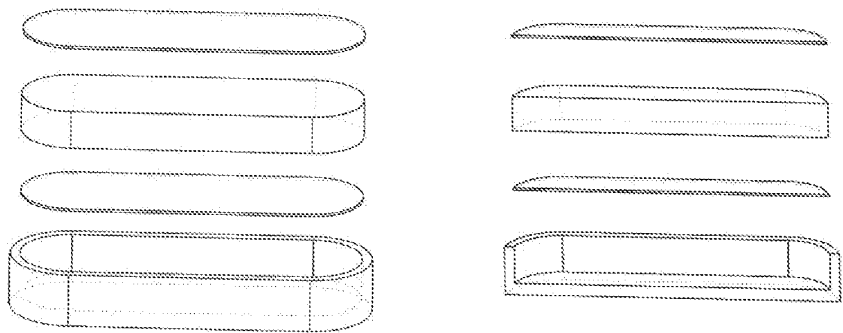


FIG. 2A

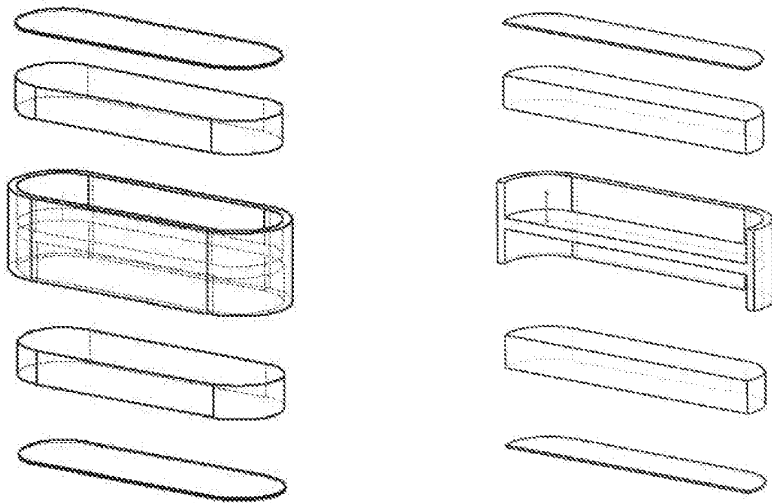


FIG. 2B

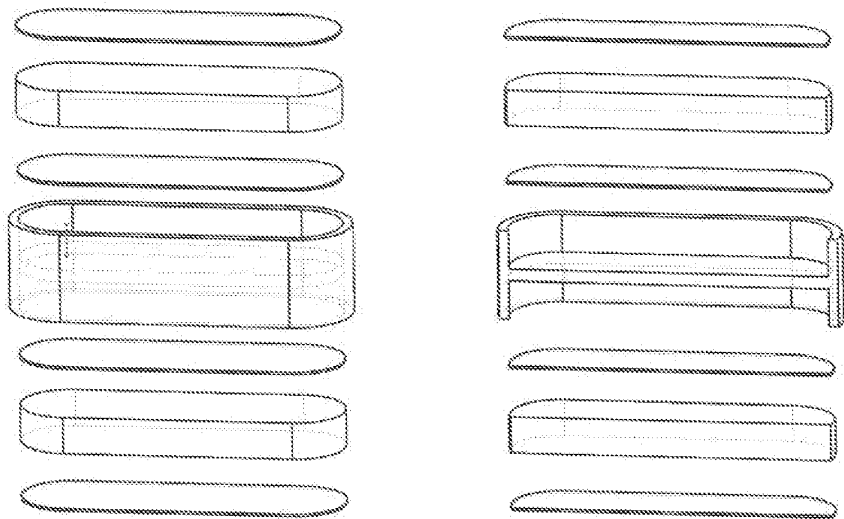


FIG. 2C

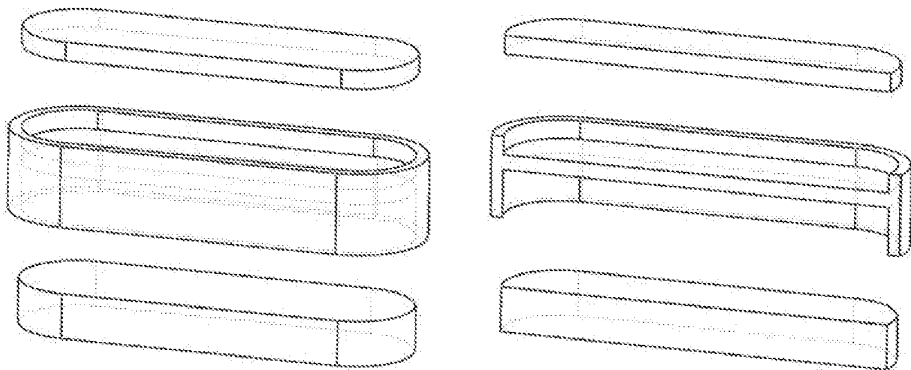


FIG. 2D

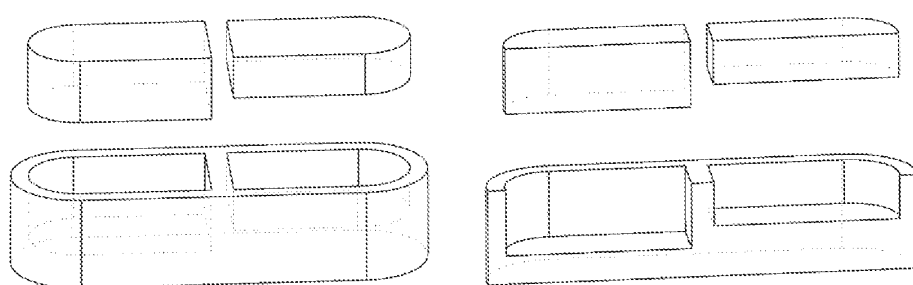
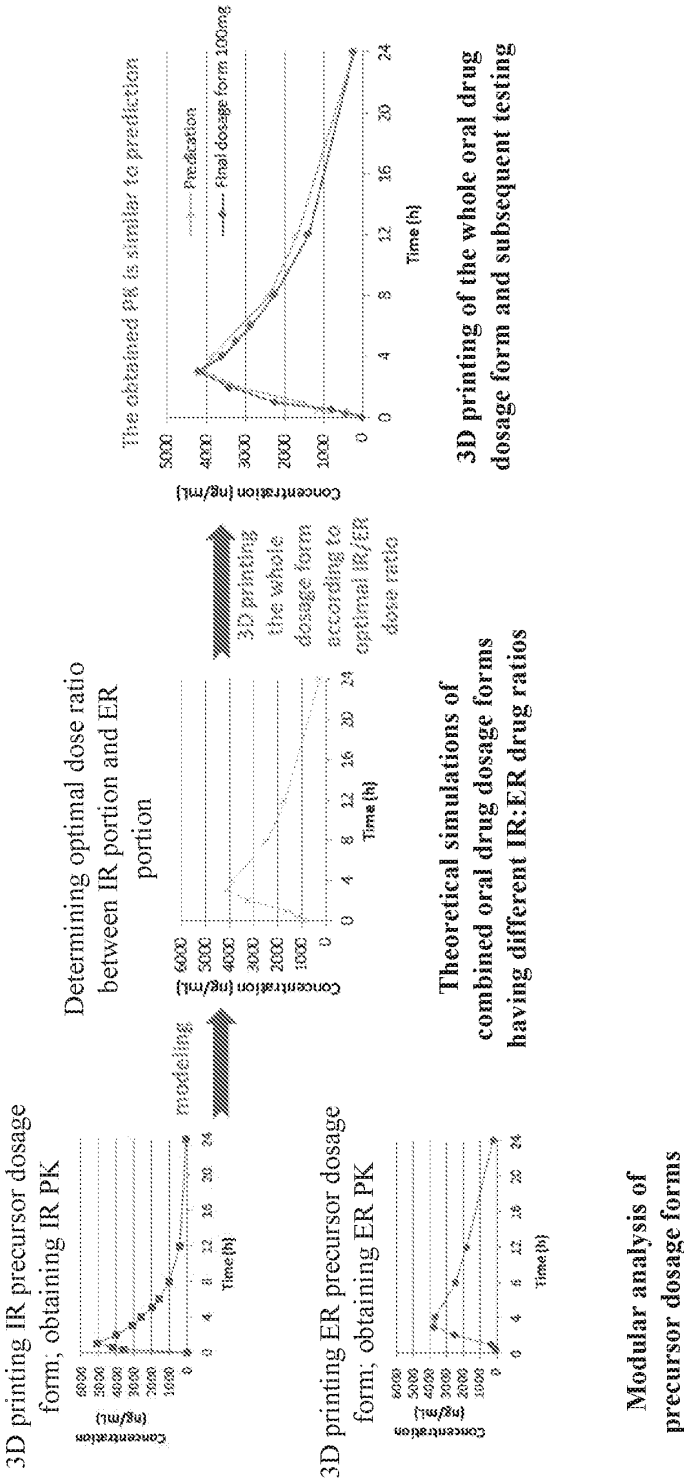
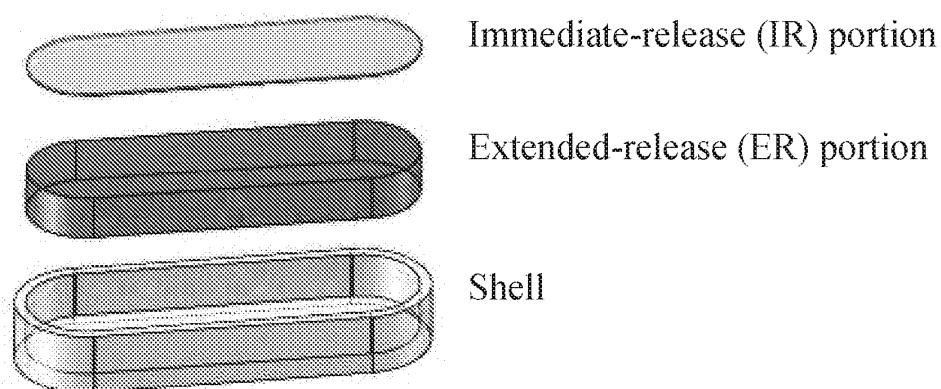
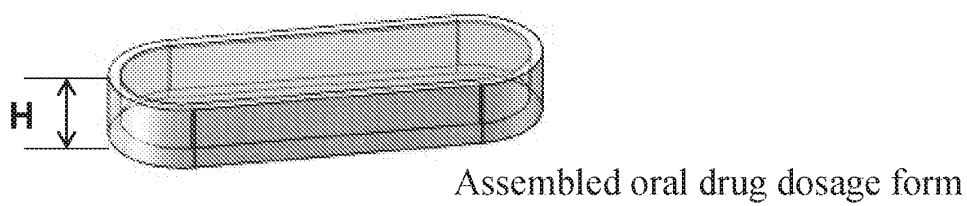
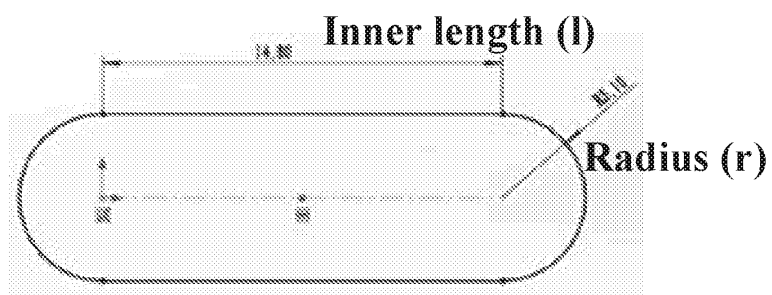


FIG. 2E

FIG. 3

3DPFbD® approach



**FIG. 4A****FIG. 4B****FIG. 4C**

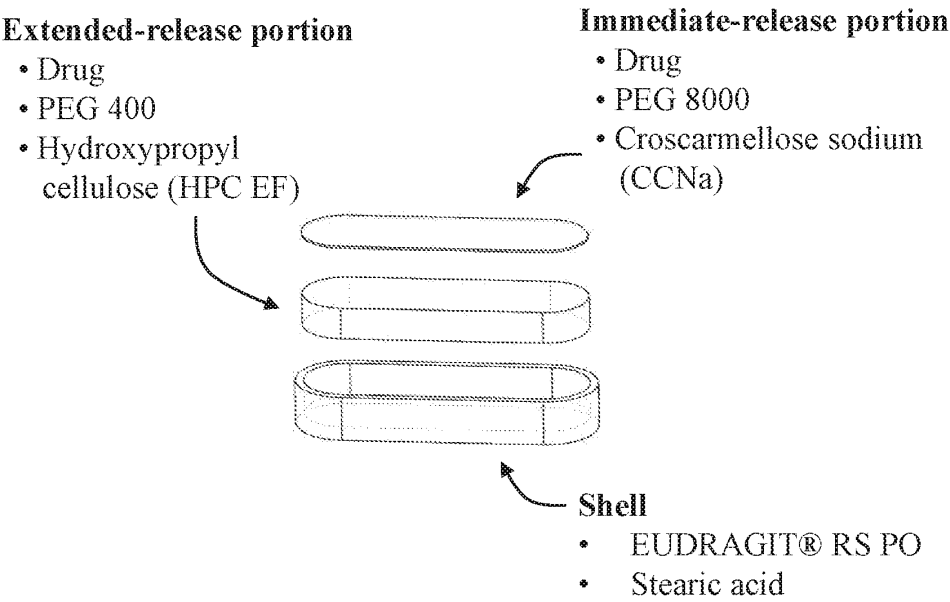


FIG. 4D

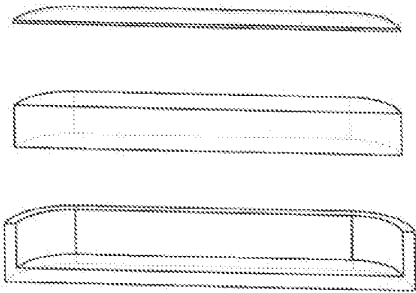
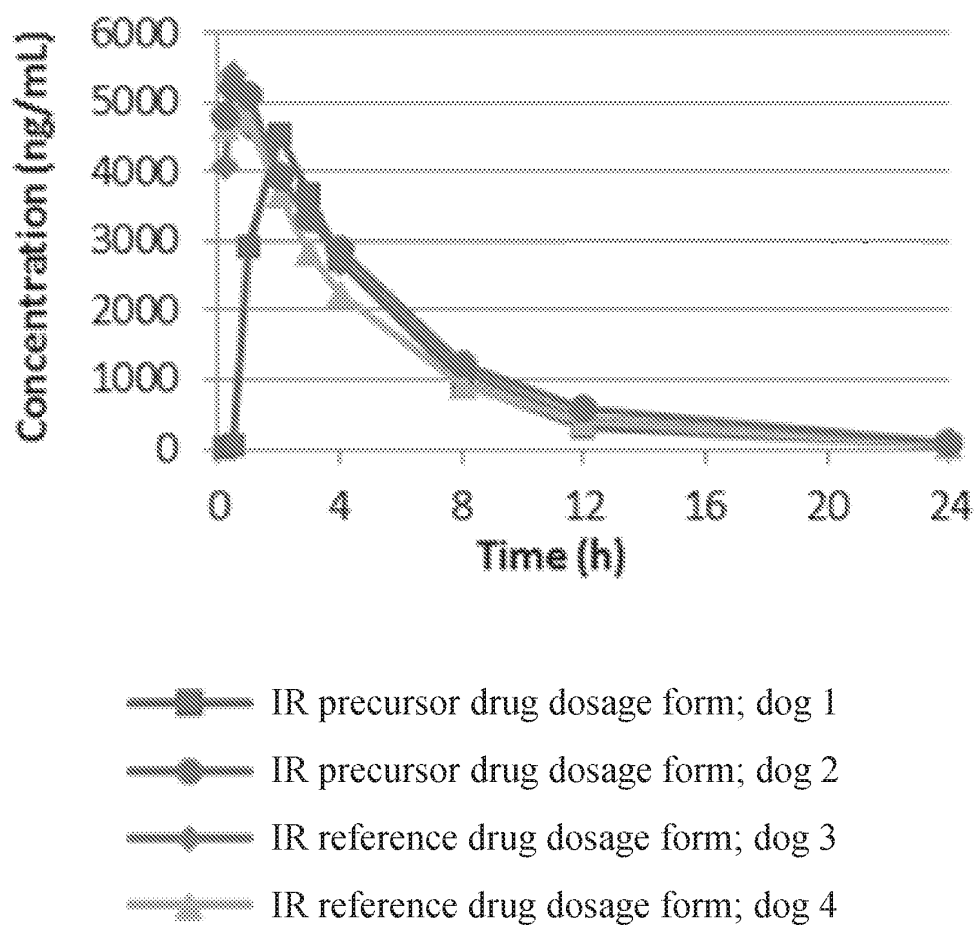
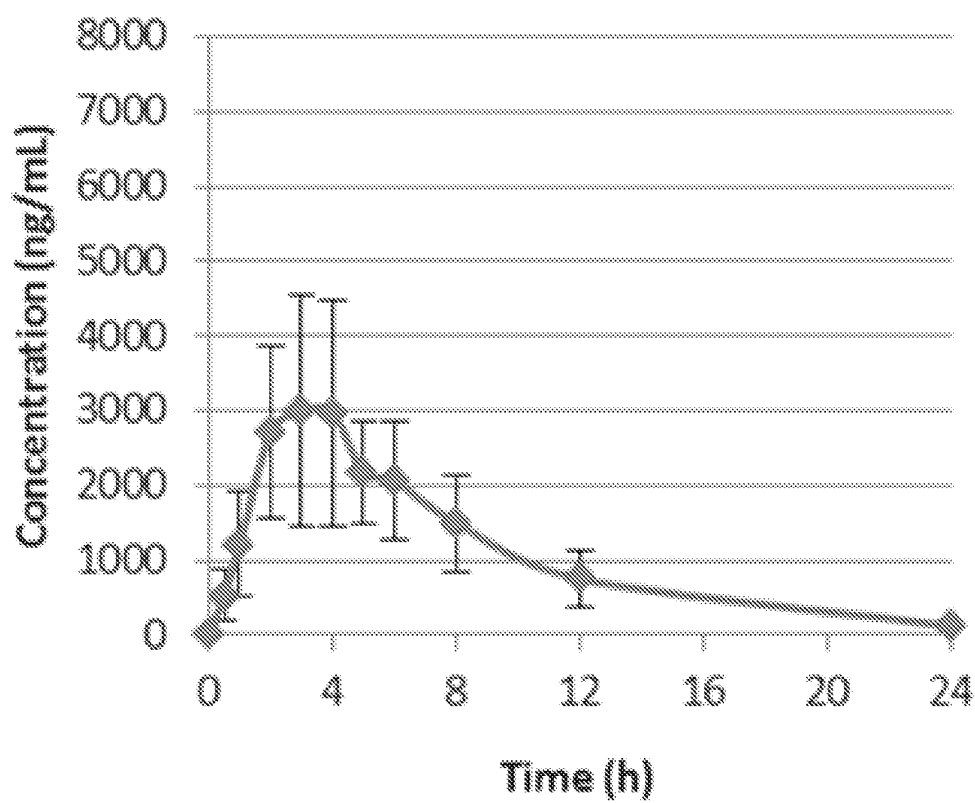
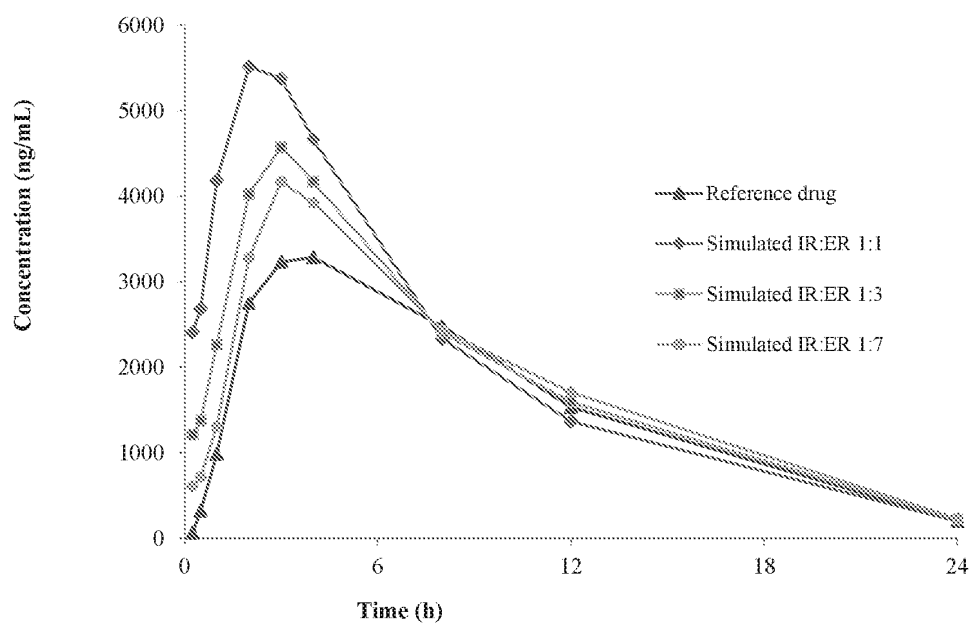
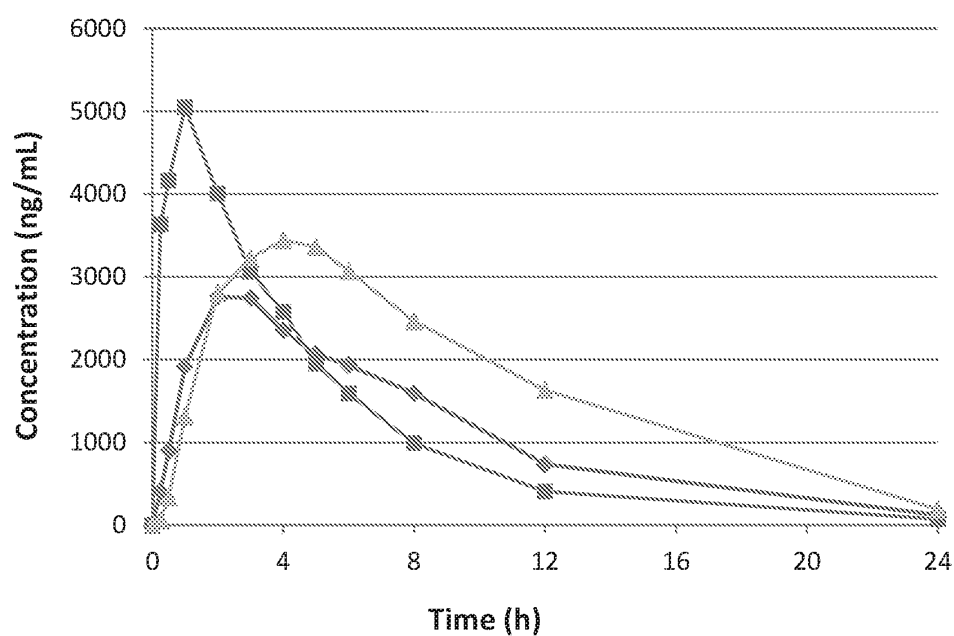


FIG. 4E

**FIG. 5**

**FIG. 6**

**FIG. 7**



- ◆ 3D printed oral drug dosage form: 100 mg of drug
- IR reference drug dosage form: 50 mg of drug
- ▲ ER reference drug dosage form: 100 mg of drug

FIG. 8

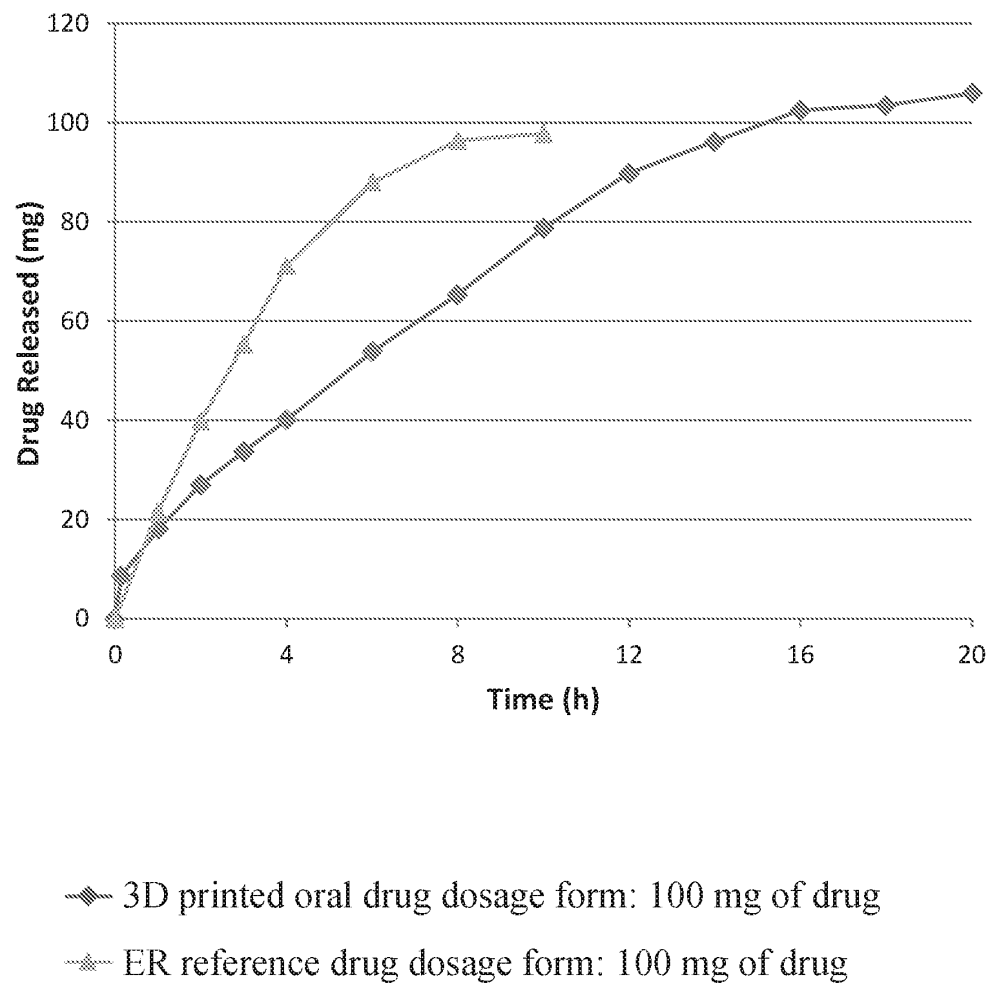


FIG. 9

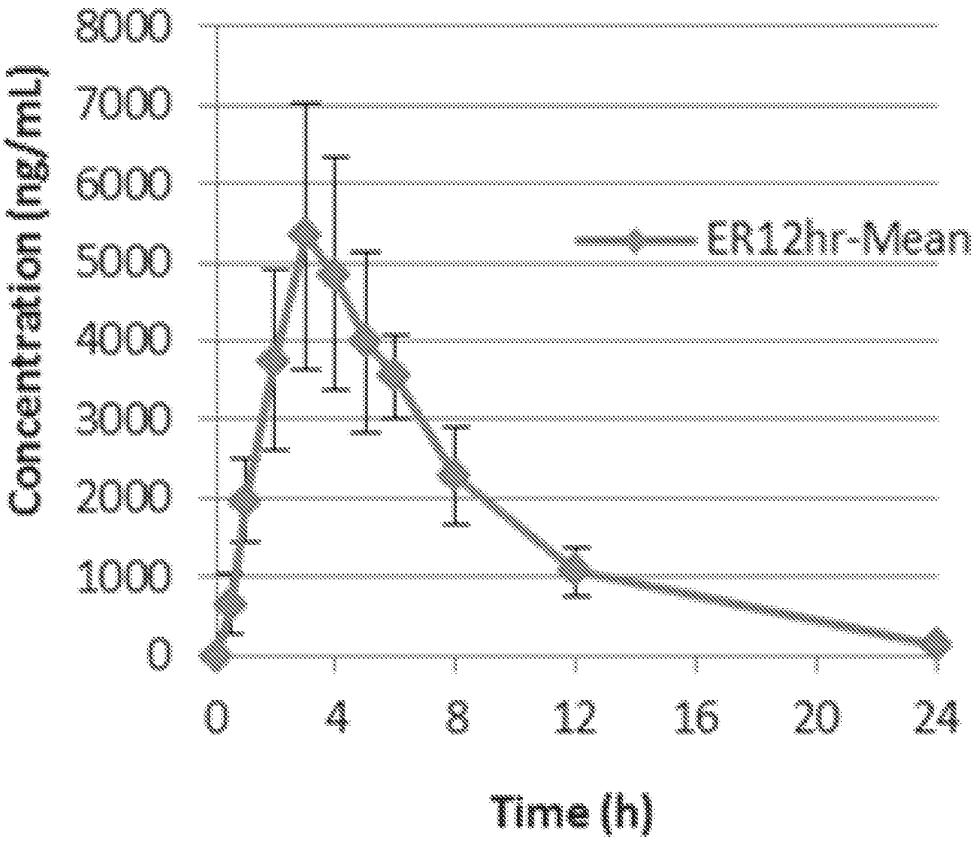
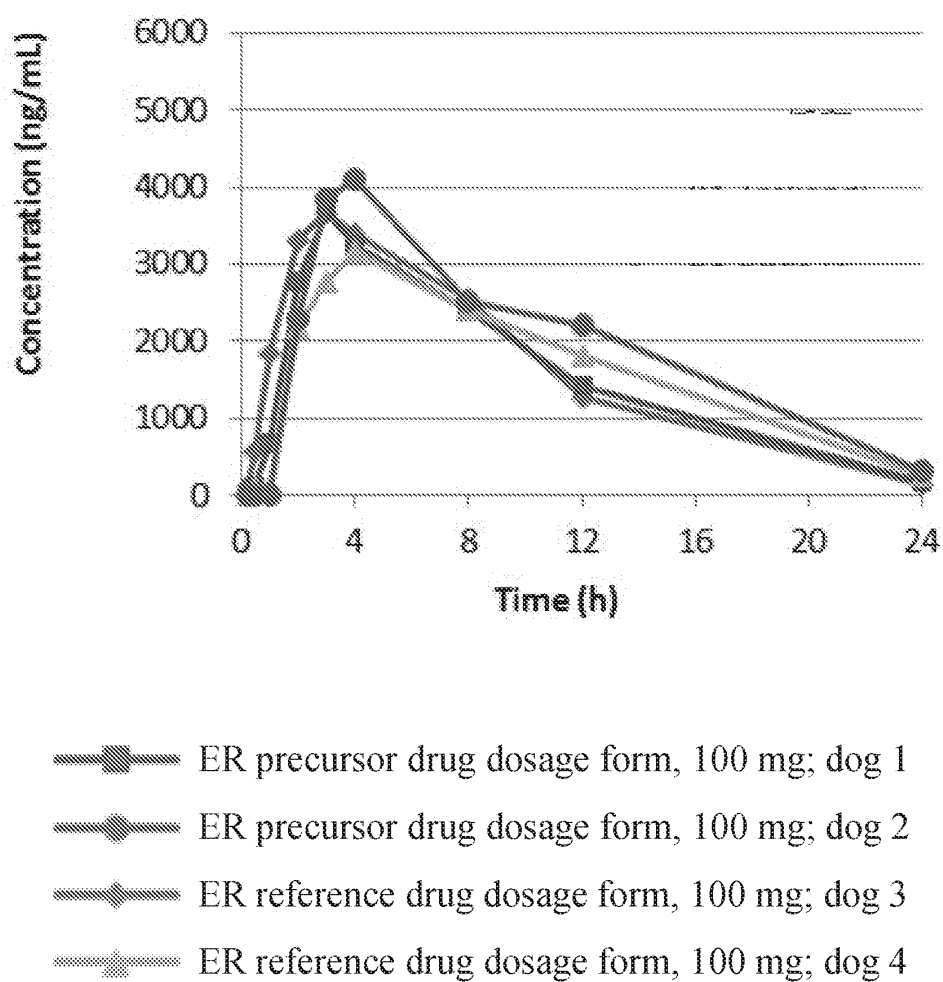
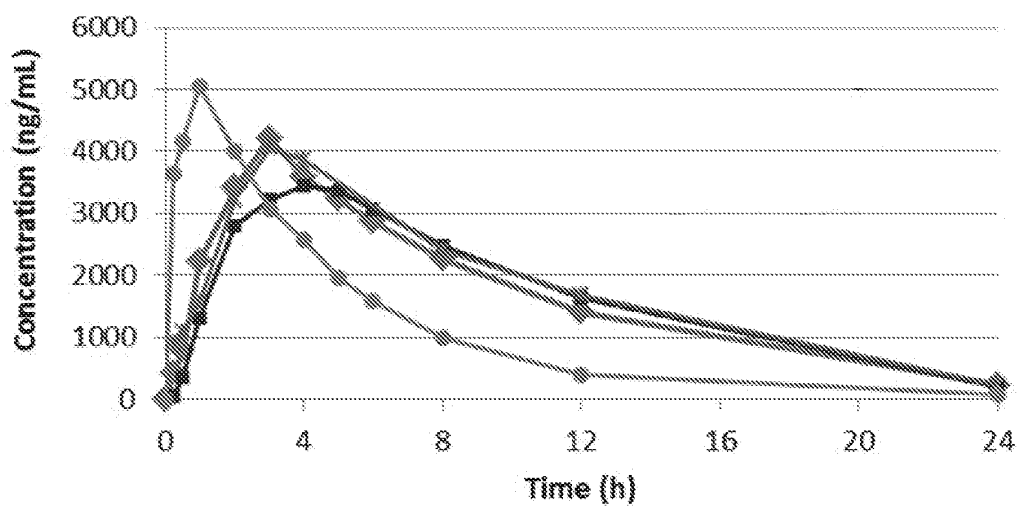


FIG. 10

**FIG. 11**



- ◆— Optimized 3D-printed oral drug dosage form, 100 mg
- *— Theoretical prediction of 3D-printed dosage form, 100 mg
- ER reference drug dosage form, 100 mg
- ◆— IR reference drug dosage form, 50 mg

FIG. 12

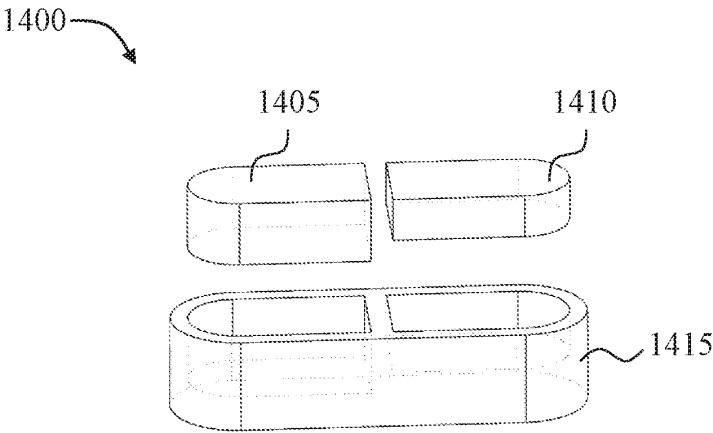


FIG. 13A

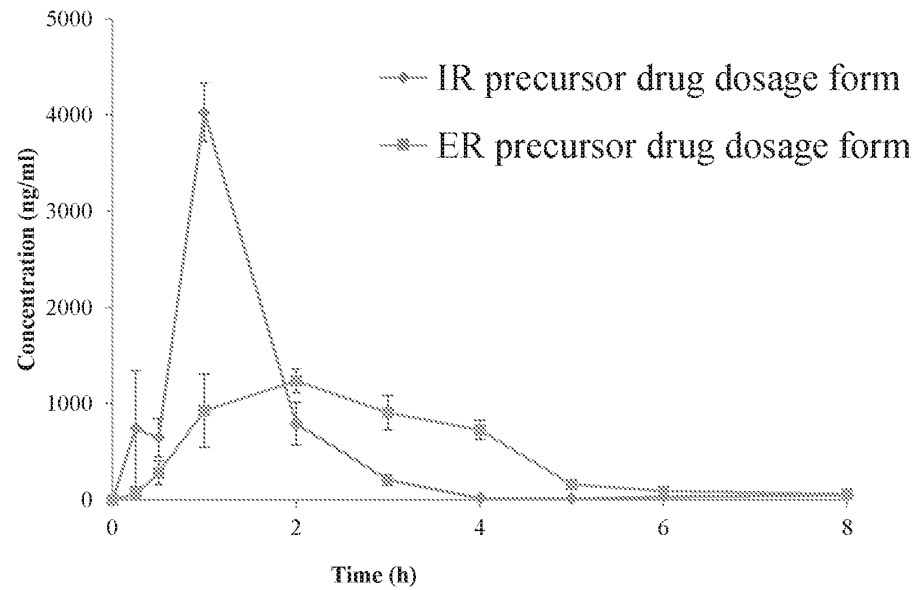
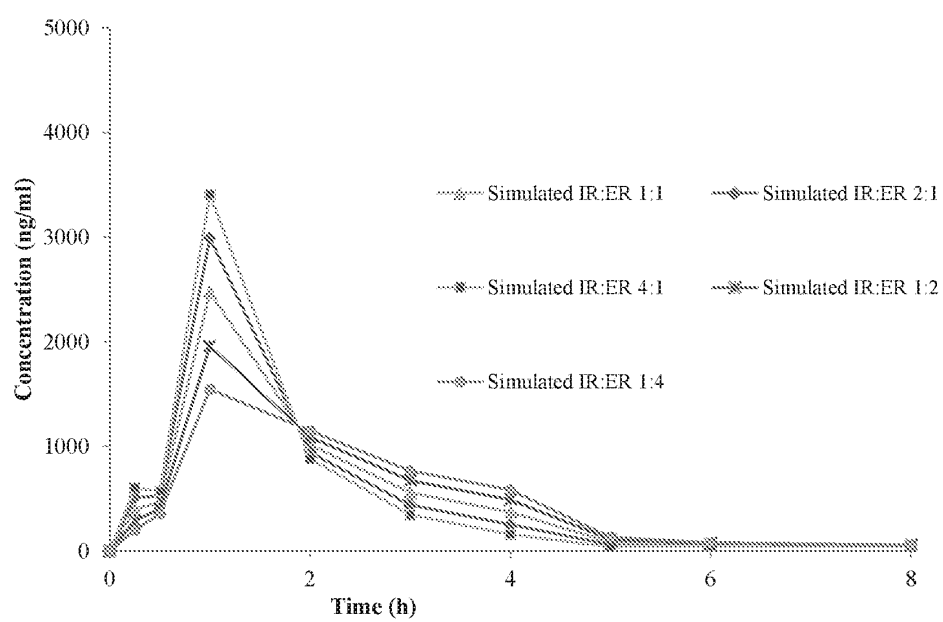
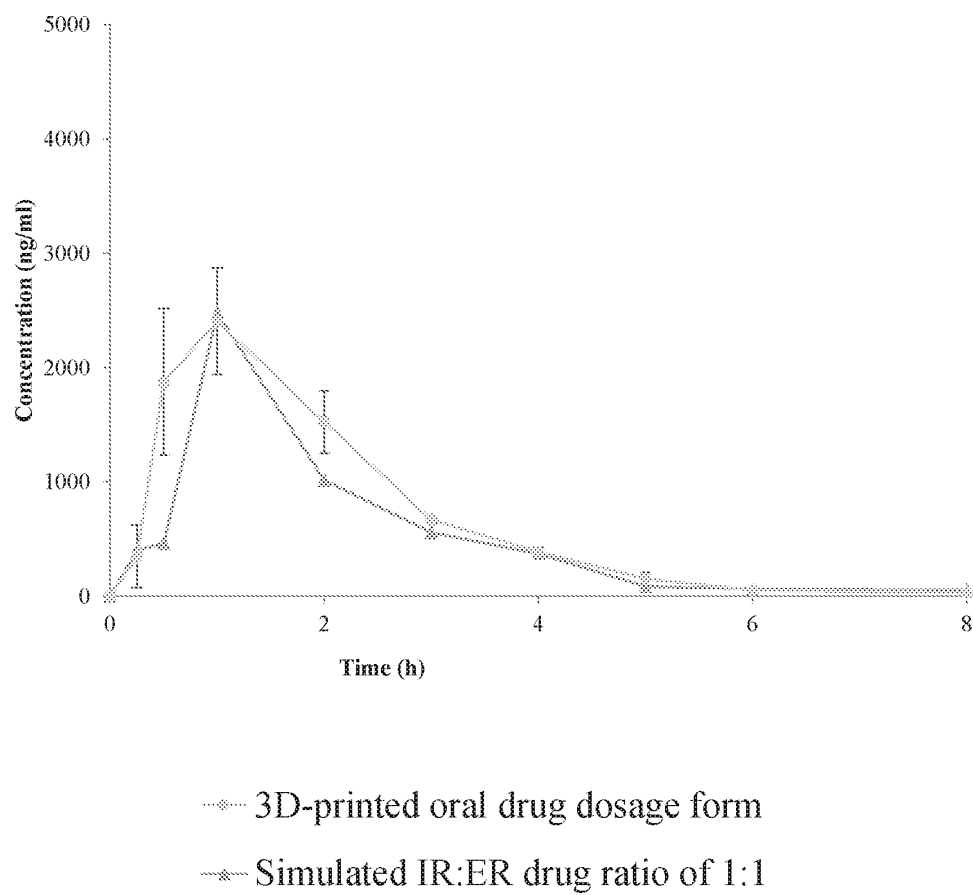


FIG. 13B

**FIG. 13C**

**FIG. 13D**