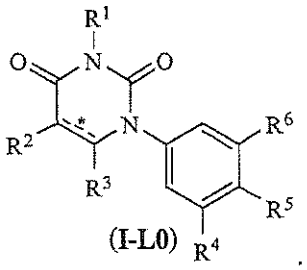
SUMMARY OF THE ~~INVENTION~~DISCLOSURE

[0009] This ~~invention~~disclosure is directed to compounds that correspond in structure to formula **I-L0:**



(I-L0)

[0010] In formula **I-L0**:

$\overset{*}{\cdots}$ is selected from the group consisting of single carbon-carbon bond and double carbon-carbon bond;

$\mathbf{R^1}$ is selected from the group consisting of hydrogen, methyl, and nitrogen-protecting group;

$\mathbf{R^2}$ is selected from the group consisting of hydrogen, halo, hydroxy, methyl, cyclopropyl, and cyclobutyl;

$\mathbf{R^3}$ is selected from the group consisting of hydrogen, halo, oxo, and methyl;

$\mathbf{R^4}$ is selected from the group consisting of halo, alkyl, alkenyl, alkynyl, nitro, cyano, azido, alkyloxy, alkenyloxy, alkynyloxy, amino, aminocarbonyl, aminosulfonyl, alkylsulfonyl, carbocyclyl, and heterocyclyl, wherein:

(**a**) the amino, aminocarbonyl, and aminosulfonyl optionally are substituted with:

(**1**) one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, and alkylsulfonyl, or

(**2**) two substituents that, together with the amino nitrogen, form a single-ring heterocyclyl, and

(**b**) the alkyl, alkenyl, alkynyl, alkyloxy, alkenyloxy, alkynyloxy, and alkylsulfonyl, optionally are substituted with one or more substituents independently selected from the group consisting of halo, oxo, nitro, cyano, azido, hydroxy, amino, alkyloxy, trimethylsilyl, carbocyclyl, and heterocyclyl, wherein:

the amino optionally is substituted with:

(**1**) one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylcarbonyl, alkylsulfonyl, alkyloxycarbonyl, carbocyclyl, heterocyclyl, carbocyclylalkyl, and heterocyclylalkyl, or

(**2**) two substituents that, together with the amino nitrogen, form a single-ring heterocyclyl, and

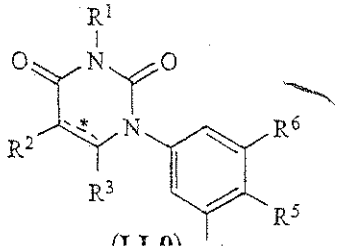
one or more substituents independently selected from the group consisting of carboxy, hydroxy, halo, amino, nitro, azido, oxo, aminosulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, wherein:

the amino, aminosulfonyl, and aminocarbonyl optionally are substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl; and

(**b**) the aminosulfonyl optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl.

[0010a] In a first aspect, there is provided a compound or salt thereof, wherein:

the compound corresponds in structure to formula **I-L0**:



(**I-L0**)

;

$-\overset{*}{-}-$ is selected from the group consisting of single carbon-carbon bond and double carbon-carbon bond;

R^1 is selected from the group consisting of hydrogen and methyl;

R^2 is selected from the group consisting of hydrogen, halo, hydroxy, methyl, cyclopropyl, and cyclobutyl;

R^3 is selected from the group consisting of hydrogen, halo, oxo, and methyl;

R^4 is selected from the group consisting of halo, alkyl, alkenyl, alkynyl, nitro, cyano, azido, alkyloxy, alkenyloxy, alkynyloxy, amino, aminocarbonyl, aminosulfonyl, alkylsulfonyl, carbocyclyl, and heterocyclyl, wherein:

(**a**) the amino, aminocarbonyl, and aminosulfonyl optionally are substituted with:

(1) one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, and alkylsulfonyl, or

(2) two substituents that, together with the amino nitrogen, form a single-ring heterocyclyl, and

(**b**) the alkyl, alkenyl, alkynyl, alkyloxy, alkenyloxy, alkynyloxy, and alkylsulfonyl, optionally are substituted with one or more substituents independently selected from the group consisting

of halo, oxo, nitro, cyano, azido, hydroxy, amino, alkyloxy, trimethylsilyl, carbocyclyl, and heterocyclyl, wherein:

the amino optionally is substituted with:

(1) one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylcarbonyl, alkylsulfonyl, alkyloxycarbonyl, carbocyclyl, heterocyclyl, carbocyclylalkyl, and heterocyclylalkyl, or

(2) two substituents that, together with the amino nitrogen, form a single-ring heterocyclyl, and

(c) the carbocyclyl and heterocyclyl optionally are substituted with up to three substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, halo, oxo, nitro, cyano, azido, hydroxy, amino, alkyloxy, trimethylsilyl, carbocyclyl, and heterocyclyl, wherein:

the amino optionally is substituted with:

(1) one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylcarbonyl, alkylsulfonyl, alkyloxycarbonyl, carbocyclyl, heterocyclyl, carbocyclylalkyl, and heterocyclylalkyl, or

(2) two substituents that, together with the amino nitrogen, form a single-ring heterocyclyl;

R^5 is selected from the group consisting of hydrogen, hydroxy, alkyl, alkenyl, alkynyl, alkyloxy, alkenyloxy, alkynyloxy, alkylsulfonyloxy, carbocyclylsulfonyloxy, haloalkylsulfonyloxy, and halo;

R^6 is selected from the group consisting of fused 2-ring carbocyclyl and fused 2-ring heterocyclyl, wherein each such substituent optionally is substituted with one or more substituents independently selected from the group consisting of R^E, R^F, R^G, R^H, R^I, R^J, and R^K;

each R^E is independently selected from the group consisting of halo, nitro, hydroxy, oxo, carboxy, cyano, amino, imino, azido, and aldehydo, wherein:

the amino optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl;

each R^F is independently selected from the group consisting of alkyl, alkenyl, and alkynyl, wherein:

each such substituent optionally is substituted with one or more substituents independently selected from the group consisting of carboxy, hydroxy, halo, amino, imino, nitro, azido, oxo, aminosulfonyl, alkylsulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, wherein:

the amino, imino, aminosulfonyl, aminocarbonyl, carbocyclyl, and heterocyclyl optionally are substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylsulfonyl, alkenylsulfonyl, alkynylsulfonyl, alkylsulfonylamino, hydroxy, and alkyloxy,

wherein:

the amino portion of the alkylsulfonylamino optionally is substituted with a substituent selected from the group consisting of alkyl, alkenyl, and alkynyl;

each $\mathbf{R}^G$ is independently selected from the group consisting of carbocyclyl and heterocyclyl, wherein:

each such substituent optionally is substituted with one or more substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, carboxy, hydroxy, halo, amino, nitro, azido, oxo, aminosulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, wherein:

the amino, aminosulfonyl, and aminocarbonyl optionally are substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylsulfonyl, alkenylsulfonyl, and alkynylsulfonyl;

each $\mathbf{R}^H$ is independently selected from the group consisting of alkyloxy, alkenyloxy, alkynyloxy, alkylsulfonyloxy, alkenylsulfonyloxy, and alkynylsulfonyloxy, wherein:

each such substituent optionally is substituted with one or more substituents independently selected from the group consisting of carboxy, hydroxy, halo, amino, nitro, azido, oxo, aminosulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, wherein:

the amino, aminosulfonyl, and aminocarbonyl optionally are substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkylsulfonyl, alkenylsulfonyl, and alkynylsulfonyl;

each $\mathbf{R}^I$ is independently selected from the group consisting of alkylcarbonyl, alkenylcarbonyl, alkynylcarbonyl, aminocarbonyl, alkyloxycarbonyl, carbocyclylcarbonyl, and heterocyclylcarbonyl, wherein:

(**a**) the alkylcarbonyl, alkenylcarbonyl, and alkynylcarbonyl optionally are substituted with one or more substituents independently selected from the group consisting of carboxy, hydroxy, halo, amino, nitro, azido, oxo, aminosulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, and

(**b**) the aminocarbonyl optionally is substituted with one or two substituents independently

selected from the group consisting of alkyl, alkenyl, alkynyl, alkyloxyalkyl, carbocyclyl, heterocyclyl, alkylsulfonyl, and alkylsulfonylamino, wherein:

the carbocyclyl and heterocyclyl optionally are substituted with one or two substituents independently selected from the group consisting of halo, alkyl, and oxo;

each R^J is independently selected from the group consisting of carbocyclylsulfonylamino, heterocyclylsulfonylamino, alkylcarbonylamino, alkenylcarbonylamino, alkynylcarbonylamino, alkyloxycarbonylamino, alkenyloxycarbonylamino, alkynyloxycarbonylamino, alkylsulfonylamino, alkenylsulfonylamino, alkynylsulfonylamino, aminocarbonylamino, alkyloxycarbonylaminoimino, alkylsulfonylaminoimino, alkenylsulfonylaminoimino, and alkynylsulfonylaminoimino, wherein:

(a) the amino portion of such substituents optionally is substituted with a substituent independently selected from the group consisting of carbocyclylalkyl, heterocyclylalkyl, alkylcarbonyloxy, aminocarbonylalkyl, alkyl, alkenyl, alkynyl, alkylcarbonyl, alkenylcarbonyl, alkynylcarbonyl, alkyloxycarbonyl, alkyloxyalkyloxycarbonyl, alkylcarbonyloxyalkyl, and alkylsulfonyl, wherein:

(1) the carbocyclyl portion of the carbocyclylalkyl and the heterocyclyl portion of the heterocyclylalkyl optionally are substituted with one or more substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, carboxy, hydroxy, alkyloxy, alkenyloxy, alkynyloxy, halo, nitro, cyano, azido, oxo, and amino, and

(2) the amino portion of the aminocarbonylalkyl optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl,

(b) the alkyl, alkenyl, and alkynyl portion of such substituents optionally is substituted with one or more substituents independently selected from the group consisting of carboxy, halo, oxo, amino, alkyloxycarbonyl, alkylcarbonyloxy, hydroxy, alkyloxy, carbocyclyl, heterocyclyl, and cyano, wherein:

the amino optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, alkyloxy, alkenyloxy, and alkynyloxy, wherein:

the alkyl optionally is substituted with one or more hydroxy;

(c) the carbocyclyl and heterocyclyl portions of such substituents optionally are substituted with one or more substituents independently selected from the group consisting of alkyl, alkenyl, alkynyl, carboxy, hydroxy, alkyloxy, alkenyloxy, alkynyloxy, halo, nitro, cyano, azido, and amino, wherein:

the amino optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl; and

each R^K is independently selected from the group consisting of aminosulfonyl, alkylsulfonyl, alkenylsulfonyl, and alkynylsulfonyl, wherein:

(a) the alkylsulfonyl, alkenylsulfonyl, and alkynylsulfonyl optionally are substituted with one or more substituents independently selected from the group consisting of carboxy, hydroxy, halo, amino, nitro, azido, oxo, aminosulfonyl, alkyloxycarbonyl, alkenyloxycarbonyl, alkynyloxycarbonyl, alkylcarbonyloxy, alkenylcarbonyloxy, alkynylcarbonyloxy, alkyloxy, alkenyloxy, alkynyloxy, carbocyclyl, heterocyclyl, cyano, and aminocarbonyl, wherein:

the amino, aminosulfonyl, and aminocarbonyl optionally are substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl; and

(b) the aminosulfonyl optionally is substituted with one or two substituents independently selected from the group consisting of alkyl, alkenyl, and alkynyl.

[0011] This ~~invention~~disclosure also is directed to the salts (including pharmaceutically acceptable salts) of the compounds of the ~~invention~~disclosure.

[0011a] In a second aspect, there is provided a pharmaceutical composition comprising one or more compounds and/or salts as defined above; and one or more excipients.

[0012] This ~~invention~~disclosure also is directed to compositons (including pharmaceutical compositions) that comprise one or more compounds and/or salts of the ~~invention~~disclosure, and, optionally, one or more additional therapeutic agents.

[0013] This ~~invention~~disclosure also is directed to kits that comprise one or more compounds and/or salts of the ~~invention~~disclosure, and, optionally, one or more additional therapeutic agents.

[0013a] In a third aspect, there is provided the use of one or more compounds and/or salts as defined above for the manufacture of a medicament for inhibiting replication of a ribonucleic acid (RNA) virus.

[0013b] In a fourth aspect, there is provided the use of one or more compounds and/or salts as defined above for the manufacture of a medicament for treating hepatitis C in a mammal.

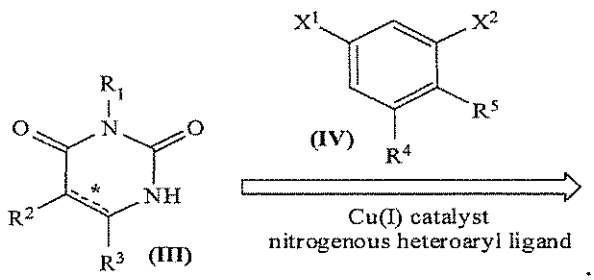
[0014] This ~~invention~~disclosure also is directed to methods of use of the compounds, salts, compositions, and/or kits of the ~~invention~~disclosure to, for example, inhibit replication of an RNA virus (including HCV), treat a disease treatable by inhibiting HCV ribonucleic acid (RNA) polymerase (including hepatitis C).

[0015] This ~~invention~~disclosure also is directed to a use of one or more compounds and/or salts of the ~~invention~~disclosure to prepare a medicament. The medicament optionally can comprise one or more additional therapeutic agents. In some embodiments, the medicament is useful for treating hepatitis C.

[0015a] In a ~~fifth aspect, there is provided one or more compounds and/or salts as defined~~ above for inhibiting replication of a ribonucleic acid (RNA) virus.

[0015b] In a sixth aspect, there is provided one or more compounds and/or salts as defined above for treating hepatitis C in a mammal.

[0015c] In a seventh aspect, there is provided a process for preparing the compound or salt as defined above, wherein the process comprises reacting a compound of formula **III** with a compound of formula **IV**, in the presence of (**i**) copper (I) salt catalyst and (**ii**) nitrogenous heteroaryl ligand, wherein $\mathbf{R^1}$, $\mathbf{R^2}$, $\mathbf{R^3}$, $\mathbf{R^4}$ and $\mathbf{R^5}$ are as defined above, and wherein $\mathbf{X^1}$ is halo, and $\mathbf{X^2}$ is selected from the group consisting of chloro, bromo, and iodo



[0015d] In an eighth aspect, there is provided crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 4.6±0.2, 10.4±0.2, 12.0±0.2, 15.6±0.2, 16.0±0.2, 18.6±0.2, 22.8±0.2, 23.3±0.2, 23.9±0.2, or 28.3±0.2 degrees 2θ.

[0015e] In a ninth aspect, there is provided crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy- phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 5.4±0.2, 10.8±0.2, 14.4±0.2, 16.3±0.2, 17.0±0.2, 18.8±0.2, 19.2±0.2, 19.6±0.2, 21.6±0.2, 22.1±0.2, 23.7±0.2, 28.8±0.2, 29.1±0.2, and 31.8±0.2 degrees 2θ.

[0015f] In a tenth aspect, there is provided crystalline pattern C N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy- phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 5.0±0.2, 12.0±0.2, 17.5±0.2, 17.8±0.2, 18.8±0.2, and 22.7±0.2 degrees 2θ.

[0015g] In an eleventh aspect, there is provided a pharmaceutical composition comprising one or more crystalline forms recited above and one or more excipients.

[0015h] In a twelfth aspect, there is provided the use of one or more crystalline forms recited above for inhibiting replication of a ribonucleic acid (RNA) virus.

[0015i] In a thirteenth aspect, there is provided the use of one or more crystalline forms recited above for treating hepatitis C in a mammal in need of such treatment.

[0015j] In a fourteenth aspect, there is provided the use of one or more crystalline forms recited above, in combination with one or more additional therapeutic agents, for treating hepatitis C in a mammal in need of such treatment.

[0015k] In a fifteenth aspect, there is provided N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide crystalline form selected from the group consisting of:

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide ethanol solvate having an X-ray powder diffraction pattern comprising three or more peaks selected from the group consisting of 8.3±0.2, 9.7±0.2, 10.6±0.2, 13.6±0.2, 17.2±0.2, 19.2±0.2, 22.7±0.2, 26.9±0.2, and 29.4±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide ethanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.3±0.2, 9.7±0.2, 10.0±0.2, 10.6±0.2, 13.6±0.2, 17.2±0.2, 17.5±0.2, 19.2±0.2, 19.4±0.2, 22.7±0.2, 26.9±0.2, and 29.4±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide acetonitrile solvate having an X-ray powder diffraction pattern comprising three or more peaks selected from the group consisting of 5.3±0.2, 8.3±0.2, 9.7±0.2, 10.5±0.2, 13.8±0.2, 17.2±0.2, 19.1±0.2, and 19.5±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide acetonitrile solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.3±0.2, 8.3±0.2, 9.7±0.2, 10.5±0.2, 13.8±0.2, 17.2±0.2, 17.7±0.2, 19.1±0.2, 19.5±0.2, 22.0±0.2, 22.8±0.2, and 27.2±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide ethyl acetate solvate having an X-ray powder diffraction pattern comprising three or more peaks selected from the group consisting of 7.9±0.2, 9.3±0.2, 9.7±0.2, 10.6±0.2, 18.7±0.2, 38.5±0.2, and 44.7±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide ethyl acetate solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 7.9±0.2, 9.3±0.2, 9.7±0.2, 10.6±0.2, 13.7±0.2, 17.4±0.2, 18.7±0.2, 21.7±0.2, 22.0±0.2, 28.2±0.2, 38.5±0.2, and 44.7±0.2 degrees 2θ.

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide 2-propanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.2±0.2, 9.3±0.2, 10.1±0.2, 16.3±0.2, 18.1±0.2, 18.6±0.2, 19.4±0.2, 21.6±0.2, and 22.5±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide 2-propanol solvate having an X-ray powder diffraction pattern

comprising one or more peaks selected from the group consisting of 8.2±0.2, 9.3±0.2, 10.1±0.2, 16.3±0.2, 18.1±0.2, 18.6±0.2, 19.4±0.2, 21.6±0.2, 22.5±0.2, 23.8±0.2, 26.0±0.2, and 28.0±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide methanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.4±0.2, 9.7±0.2, 10.1±0.2, 13.8±0.2, 17.4±0.2, 19.3±0.2, and 19.6±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide methanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.4±0.2, 9.7±0.2, 10.1±0.2, 13.5±0.2, 13.8±0.2, 17.4±0.2, 19.3±0.2, 19.6±0.2, and 27.1±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide 1-propanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.2±0.2, 9.3±0.2, 10.1±0.2, 15.7±0.2, 16.2 ±0.2, 18.4±0.2, 19.3±0.2, 21.6±0.2, and 22.8±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide 1-propanol solvate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.2±0.2, 9.3±0.2, 10.1±0.2, 10.5±0.2, 15.7±0.2, 16.2 ±0.2, 18.4±0.2, 18.6±0.2, 19.3±0.2, 21.0±0.2, 21.6±0.2, and 22.8±0.2 degrees 2θ;

crystalline solvent free N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 6.2±0.2, 7.9±0.2, 9.9±0.2, 16.2±0.2, and 18.3±0.2 degrees 2θ;

crystalline solvent free N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 6.2±0.2, 7.9±0.2, 9.9±0.2, 10.1±0.2, 14.9±0.2, 16.2±0.2, 18.3±0.2, 19.8±0.2, and 26.5±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide hydrate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 6.4±0.2, 12.9±0.2, 17.9±0.2, and 18.9±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide hydrate having an X-ray powder diffraction pattern comprising one

or more peaks selected from the group consisting of 6.4±0.2, 12.9±0.2, 17.5±0.2, 17.9±0.2, 18.9±0.2, and 24.4±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide hydrate having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 6.4±0.2, 12.7±0.2, 12.9±0.2, 14.1±0.2, 15.7±0.2, 17.2±0.2, 17.5±0.2, 17.9±0.2, 18.9±0.2, 21.2±0.2, 24.4±0.2, and 25.0±0.2 degrees 2θ;

crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 4.6±0.2, 10.4±0.2, 12.0±0.2, 15.6±0.2, 18.6±0.2, 22.8±0.2, and 23.9±0.2 degrees 2θ;

crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 4.6±0.2, 10.4±0.2, 12.0±0.2, 15.6±0.2, 18.6±0.2, 22.8±0.2, 23.3±0.2, and 23.9±0.2 degrees 2θ;

crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 4.6±0.2, 10.4±0.2, 12.0±0.2, 15.6±0.2, 16.0±0.2, 18.6±0.2, 22.8±0.2, 23.3±0.2, 23.9±0.2, and 28.3±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.4±0.2, 10.8±0.2, 14.4±0.2, 16.3±0.2, 17.0±0.2, 21.6±0.2, 22.1±0.2, and 23.7±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.4±0.2, 10.8±0.2, 14.4±0.2, 16.3±0.2, 17.0±0.2, 18.8±0.2, 19.2±0.2, 19.6±0.2, 21.6±0.2, 22.1±0.2, 23.7±0.2, 28.8±0.2, 29.1±0.2, and 31.8±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising three or more peaks selected from the group consisting of 5.4±0.2, 10.8±0.2, 16.3±0.2, 22.1±0.2, and 23.7±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising peaks at 5.4±0.2, 10.8±0.2, 16.3±0.2, and 22.1±0.2 degrees 2θ;

crystalline pattern C N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.0±0.2, 12.0±0.2, 17.5±0.2, 18.8±0.2, and 22.7±0.2 degrees 2θ;

crystalline pattern C N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.0±0.2, 12.0±0.2, 17.5±0.2, 17.8±0.2, 18.8±0.2, and 22.7±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)-naphthalen-2-yl)methanesulfonamide disodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 4.8±0.2, 9.6±0.2, 10.5±0.2, 13.0±0.2, 14.6±0.2, 15.4±0.2, 16.8 ±0.2, and 23.0±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide disodium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 4.8±0.2, 9.6±0.2, 10.5±0.2, 13.0±0.2, 14.6±0.2, 15.4±0.2, 16.8 ±0.2, 22.7±0.2, 23.0±0.2, and 23.3±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide monopotassium salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.0±0.2, 9.9±0.2, 11.3±0.2, 13.3±0.2, 16.9±0.2, 18.1±0.2, 19.1±0.2, 20.0±0.2, 21.1±0.2, 23.5±0.2, 24.8±0.2, and 25.7±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide monopotassium salt having monopotassium salt has an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 5.0±0.2, 9.9±0.2, 11.3±0.2, 13.3±0.2, 16.9±0.2, 18.1±0.2, 19.1±0.2, 20.0±0.2, 21.1±0.2, 21.5±0.2, 23.5±0.2, 24.8±0.2, and 25.7±0.2 degrees 2θ;

crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monocholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 10.9±0.2, 12.1±0.2, 13.4±0.2, 15.5±0.2, 17.0±0.2, 17.8±0.2, 18.3±0.2, 19.5±0.2, and 21.9±0.2 degrees 2θ;

crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy phenyl)naphthalen-2-yl)methanesulfonamide monocholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 10.9±0.2, 12.1±0.2, 13.0±0.2, 13.4±0.2, 13.6±0.2, 15.5±0.2, 17.0±0.2, 17.8±0.2, 18.3±0.2, 19.5±0.2, 19.7±0.2, and 21.9±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monocholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.0±0.2, 9.4±0.2, 11.0±0.2, 13.0±0.2, 13.7±0.2, 15.9±0.2, 17.0±0.2, 18.3±0.2, 18.9±0.2, 19.8±0.2, and 22.1±0.2 degrees 2θ;

crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monocholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.0±0.2, 9.4±0.2, 11.0±0.2, 13.0±0.2, 13.3±0.2, 13.7±0.2, 15.9±0.2, 17.0±0.2, 17.4±0.2, 18.3±0.2, 18.9±0.2, 19.8±0.2, 21.8±0.2, and 22.1±0.2 degrees 2θ;

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide dicholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.6±0.2, 11.0±0.2, 12.9±0.2, 17.0±0.2, 17.5±0.2, 18.9±0.2, 19.8±0.2, and 21.9±0.2 degrees 2θ; and

crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl) naphthalen-2-yl)methanesulfonamide dicholine salt having an X-ray powder diffraction pattern comprising one or more peaks selected from the group consisting of 8.6±0.2, 11.0±0.2, 12.9±0.2, 17.0±0.2, 17.5±0.2, 18.9±0.2, 19.8±0.2, 21.9±0.2, and 22.1±0.2 degrees 2θ.

[0015l] In a sixteenth aspect, there is provided a pharmaceutical composition comprising one or more crystalline forms recited above and one or more excipients.

[0015m] In a seventeenth aspect, there is provided the use of one or more crystalline forms recited above for inhibiting replication of a ribonucleic acid (RNA) virus.

[0015n] In an eighteenth aspect, there is provided the use of one or more crystalline forms recited above, in combination with one or more additional therapeutic agents, for treating hepatitis C in a mammal in need of such treatment.

[0015o] In a nineteenth aspect, there is provided a process for preparing crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt comprising:

adding 1M aqueous NaOH to N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide;

seeding the resulting suspension with crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide, disodium salt; and

equilibrating the resulting suspension at ambient conditions.

[0015p] In a twentieth aspect, there is provided a process for preparing crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt comprising:

suspending crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt in an organic solvent selected from the group consisting of acetonitrile, ethanol, 1-propanol, and 2-propanol at room temperature to form crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt.

[0015q] In a twenty-first aspect, there is provided a process for preparing crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt comprising;

seeding a solution of N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide with crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt.

[0016] Further benefits of Applicants' ~~invention~~disclosure will be apparent to one skilled in the art from reading this patent application.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] Figure 1 shows an illustrative PXRD pattern for the ethanol solvate of compound **IB-L0-2.3**.

[0018] Figure 2 shows an illustrative TGA profile of the ethanol solvate of compound **IB-L0-2.3**.

[0019] Figure 3 shows an illustrative PXRD pattern for the acetonitrile solvate of compound **IB-L0-2.3**.

[0020] Figure 4 shows an illustrative PXRD pattern for the ethyl acetate solvate of compound **IB-L0-2.3**.

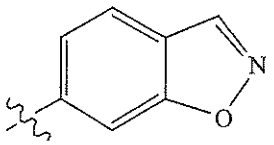
[0021] Figure 5 shows an illustrative PXRD pattern for the 2-propanol solvate of compound **IB-L0-2.3**.

[0022] Figure 6 shows an illustrative PXRD pattern for the methanol solvate of compound **IB-L0-2.3**.

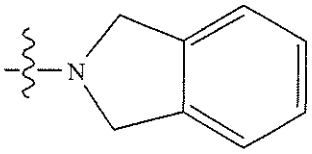
[0023] Figure 7 shows an illustrative PXRD pattern for the 1-propanol solvate of compound **IB-L0-2.3**.

[0024] Figure 8 shows an illustrative PXRD pattern for the solvent free crystalline compound **IB-L0-2.3**.

[0025] Figure 9 shows an illustrative PXRD pattern for the hydrate of compound **IB-L0-2.3**.


(H21)

, and


(H22)

;

X^5, X^6, and X^7 are independently selected from the group consisting of N and C(H);

X^8 is selected from the group consisting of N(H), O, and S;

one or more of X^{19}, X^{20}, and X^{21} is N, and the remaining one(s) is/are C(H);

one or more of X^{22}, X^{23}, X^{24}, and X^{25} is N, and the remaining one(s) is/are C(H);

X^{40}, X^{41}, and X^{42} are independently selected from the group consisting of N and C(H);

one of X^{43}, X^{44}, and X^{45} is selected from the group consisting of N(H), O, and S, and the remaining two are $C(H)_2$;

X^{56}, X^{57}, and X^{58} are independently selected from the group consisting of N and C(H);

X^{59} is selected from the group consisting of N(H), O, and S;

one or more of X^{73}, X^{74}, X^{75}, and X^{76} is N, and the remaining one(s) is/are C(H); and

one of X^{77} and X^{78} is N(H), and the remaining one is $C(H)_2$.

22. The compound or salt of claim 21~~25~~, wherein:

X^5, X^6, and X^7 are C(H);

one of X^{19}, X^{20}, and X^{21} is N;

one of X^{22}, X^{23}, X^{24}, and X^{25} is N;

X^{40}, X^{41}, and X^{42} are C(H); and

X^{56}, X^{57}, and X^{58} are C(H).

23. The compound or salt of claim **1**, wherein R^6 is fused 2-ring carbocyclyl selected from the group consisting of naphthalenyl, dihydronaphthalenyl, tetrahydronaphthalenyl, hexahydronaphthalenyl, octahydronaphthalenyl, decahydronaphthalenyl, indenyl, dihydroindenyl, hexahydroindenyl, and octahydroindenyl.

24. The compound or salt of claim **1**, wherein R^6 is fused 2-ring carbocyclyl selected from the group consisting of naphthalenyl, dihydronaphthalenyl, tetrahydronaphthalenyl, hexahydronaphthalenyl, octahydronaphthalenyl, and decahydronaphthalenyl.

R^1 is hydrogen;

R^2 ~~is selected from the group consisting of~~ hydrogen ~~and halo~~;

R^3 is hydrogen;

R^4 is tert-butyl; and

R^5 is selected from the group consisting of hydroxy and methoxy.

64. The compound or salt of claim **1**, wherein:

~~----~~* is double carbon-carbon bond;

R^1 is selected from the group consisting of hydrogen and methyl;

R^2 is selected from the group consisting of hydrogen, methyl, and halo;

R^3 is selected from the group consisting of hydrogen and methyl;

R^4 is *tert*-butyl;

R^5 is selected from the group consisting of hydrogen, hydroxy, methoxy, and halo; and

R^6 is naphthalenyl substituted with one or two substituents independently selected from the group consisting of R^E, R^F, R^G, R^H, R^I, R^J, and R^K.

65. The compound or salt of claim **1**, wherein:

R^1 is hydrogen;

R^2 is selected from the group consisting of hydrogen and halo;

R^3 is hydrogen;

R^4 is *tert*-butyl;

R^5 is selected from the group consisting of hydroxy and methoxy;

~~R^A is hydrogen;~~

~~R^B is hydrogen;~~ and

R^6 is naphthalenyl substituted with a substituent selected from the group consisting of R^E, R^F, R^G, R^H, R^I, R^J, and R^K.

66. The compound or salt of claim **1**, wherein:

~~----~~* is double carbon-carbon bond;

R^1 is selected from the group consisting of hydrogen and methyl;

R^2 is selected from the group consisting of hydrogen, methyl, and halo;

R^3 is selected from the group consisting of hydrogen and methyl;

101. The use of claim **96** or **98**, wherein the medicament further comprises one or more additional therapeutic agents.

102. The use of claim **100** or 101~~102~~, wherein one or more additional therapeutic agents are selected from the group consisting of interferon agent, ribavirin, HCV inhibitor, and HIV inhibitor.

103. The use of any one of claims **100-102**, wherein the one or more additional therapeutic agents is an HCV inhibitor.

104. The use of any one of claims **96-103**, wherein the compound is N-(6-(3-*tert*-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt.

105. One or more compounds and/or salts of claim **1** for inhibiting replication of a ribonucleic acid (RNA) virus.

106. The compound and/or salt for use according to claim **105**, wherein the RNA virus is hepatitis C virus (HCV).

107. One or more compounds and/or salts of claim **1** for treating hepatitis C in a mammal.

108. The compound and/or salt of claim **1** for use according to claim **107**, wherein the mammal is human.

109. The compound and/or salt for use according to claim **105** or **107** wherein the compound and/or salt is in a form for administration in combination with one or more additional therapeutic agents.

110. The compound and/or salt for use according to claim **109**, wherein one or more additional therapeutic agents are selected from the group consisting of interferon agent, ribavirin, HCV inhibitor, and HIV inhibitor.

111. The compound and/or salt for use according to claim **109** or **110**, wherein the one or

hydrogen, C_{1-4}-perfluoroalkyl, C_{1-4}-alkyloxy, C_{1-4}-haloalkyl, chloro, and cyano.

117. The process of any one of claims **113-116**, wherein the nitrogenous heteroaryl ligand is selected from the group consisting of 8-hydroxyquinoline, 2-(2-pyridyl)-benzimidazole, N-(4-cyano-phenyl)picolinamide, and N-(2-cyanophenyl)picolinamide.

118. The process of any one of claims **113-117**, wherein the copper catalyst is selected from the group consisting of CuI, CuBr, CuCl, Cu_2O, and $CH_3C(O)OCu$.

119. Crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 4.6±0.2, 10.4±0.2, 12.0±0.2, 15.6±0.2, 16.0±0.2, 18.6±0.2, 22.8±0.2, 23.3±0.2, 23.9±0.2, or 28.3±0.2 degrees 2θ.

120. Crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy- phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 5.4±0.2, 10.8±0.2, 14.4±0.2, 16.3±0.2, 17.0±0.2, 18.8±0.2, 19.2±0.2, 19.6±0.2, 21.6±0.2, 22.1±0.2, 23.7±0.2, 28.8±0.2, 29.1±0.2, and 31.8±0.2 degrees 2θ.

121. Crystalline pattern C N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy- phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt having an X-ray powder diffraction pattern comprising one or more peaks that are 5.0±0.2, 12.0±0.2, 17.5±0.2, 17.8±0.2, 18.8±0.2, and 22.7±0.2 degrees 2θ.

122. A pharmaceutical composition comprising one or more crystalline forms recited in any one of claims **119**, **120** and **121** and one or more excipients.

123. The pharmaceutical composition of claim **122**, wherein the composition comprises crystalline pattern B N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxy-phenyl)naphthalen-2-yl)methanesulfonamide monosodium salt.

124. The pharmaceutical composition of claim **123**, wherein the pharmaceutical composition

therapeutic agents is an HCV inhibitor.

140. Use of one or more crystalline forms recited in claim **135** for inhibiting replication of a ribonucleic acid (RNA) virus.

141. The use of claim 140~~152~~, wherein the RNA virus is hepatitis C virus (HCV).

142. Use of one or more crystalline forms recited in claim **135** for treating hepatitis C in a mammal in need of such treatment.

143. The use of claim **142**, wherein the mammal is human.

144. Use of one or more crystalline forms recited in claim **135,** in combination with one or more additional therapeutic agents, for treating hepatitis C in a mammal in need of such treatment.

145. The use of claim **144**, wherein one or more additional therapeutic agents are interferon agents, ribavirin, HCV inhibitors, or HIV inhibitors.

146. The use of claim **144**, wherein the one or more additional therapeutic agents is an HCV inhibitor.

147. A process for preparing crystalline pattern A N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide monosodium salt comprising:

adding 1M aqueous NaOH to N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide;

seeding the resulting suspension with crystalline N-(6-(3-tert-butyl-5-(2,4-dioxo-3,4-dihydropyrimidin-1(2H)-yl)-2-methoxyphenyl)naphthalen-2-yl)methanesulfonamide, disodium salt; and

equilibrating the resulting suspension at ambient conditions.