

1/138

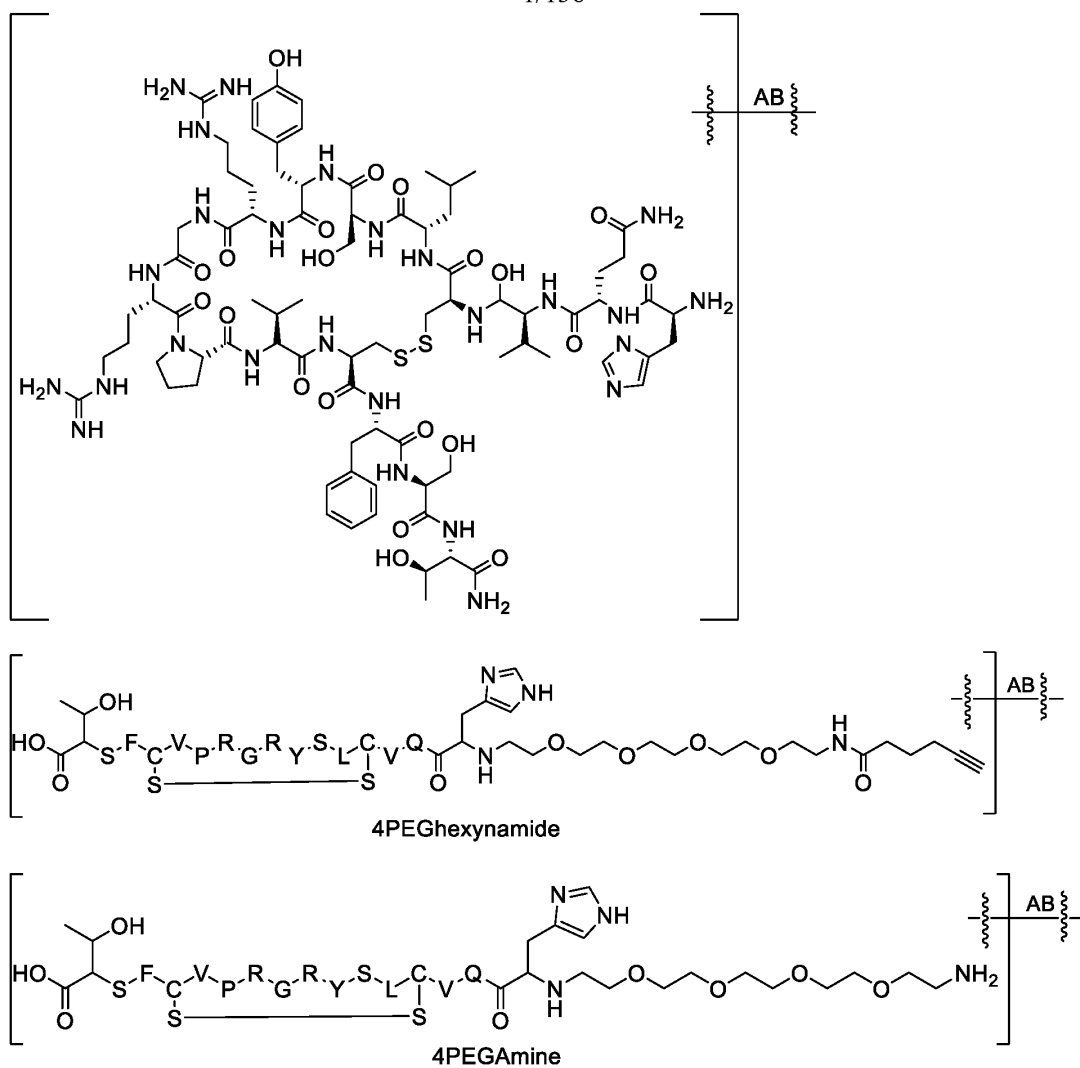


FIG. 1A

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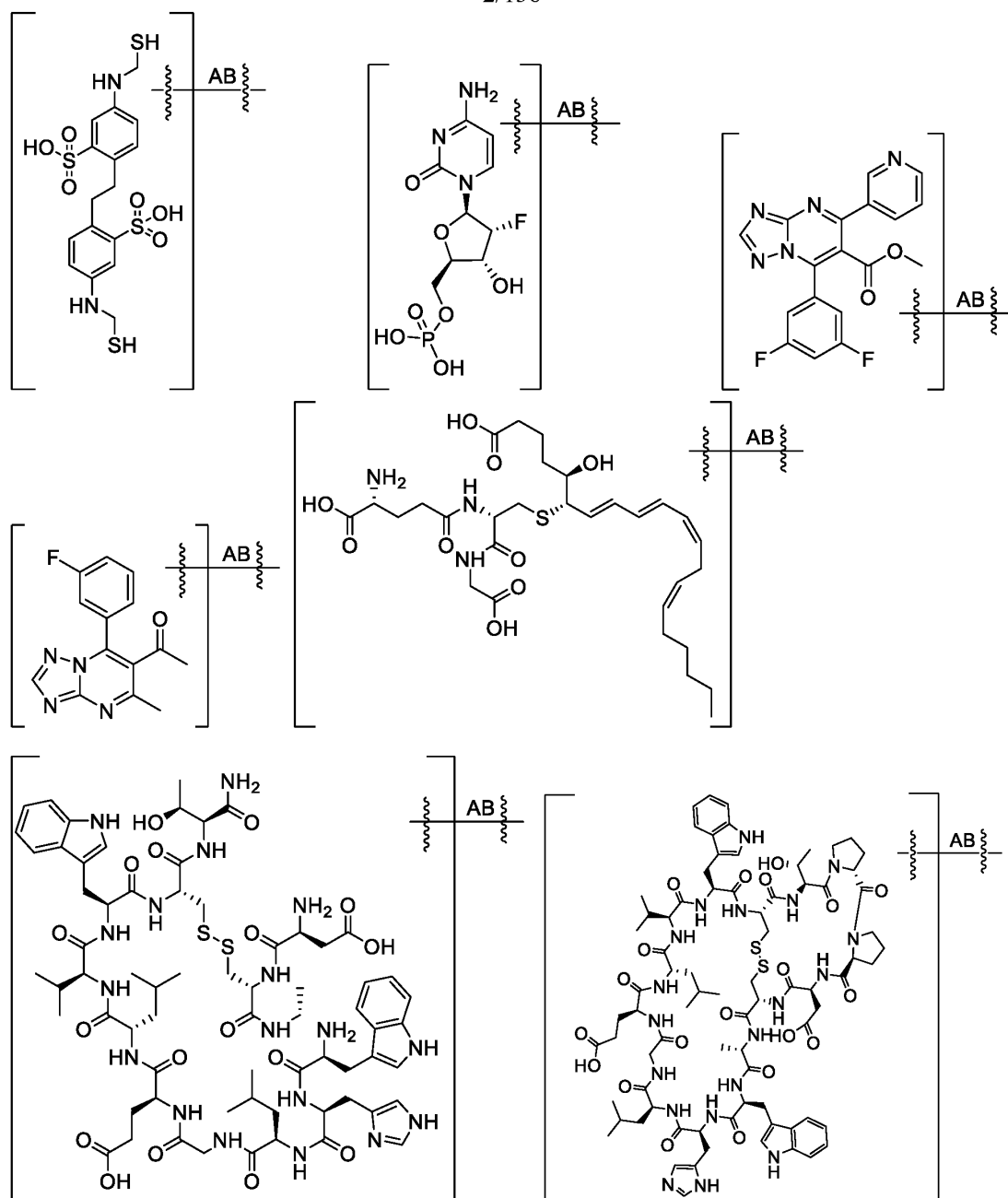


FIG. 1B

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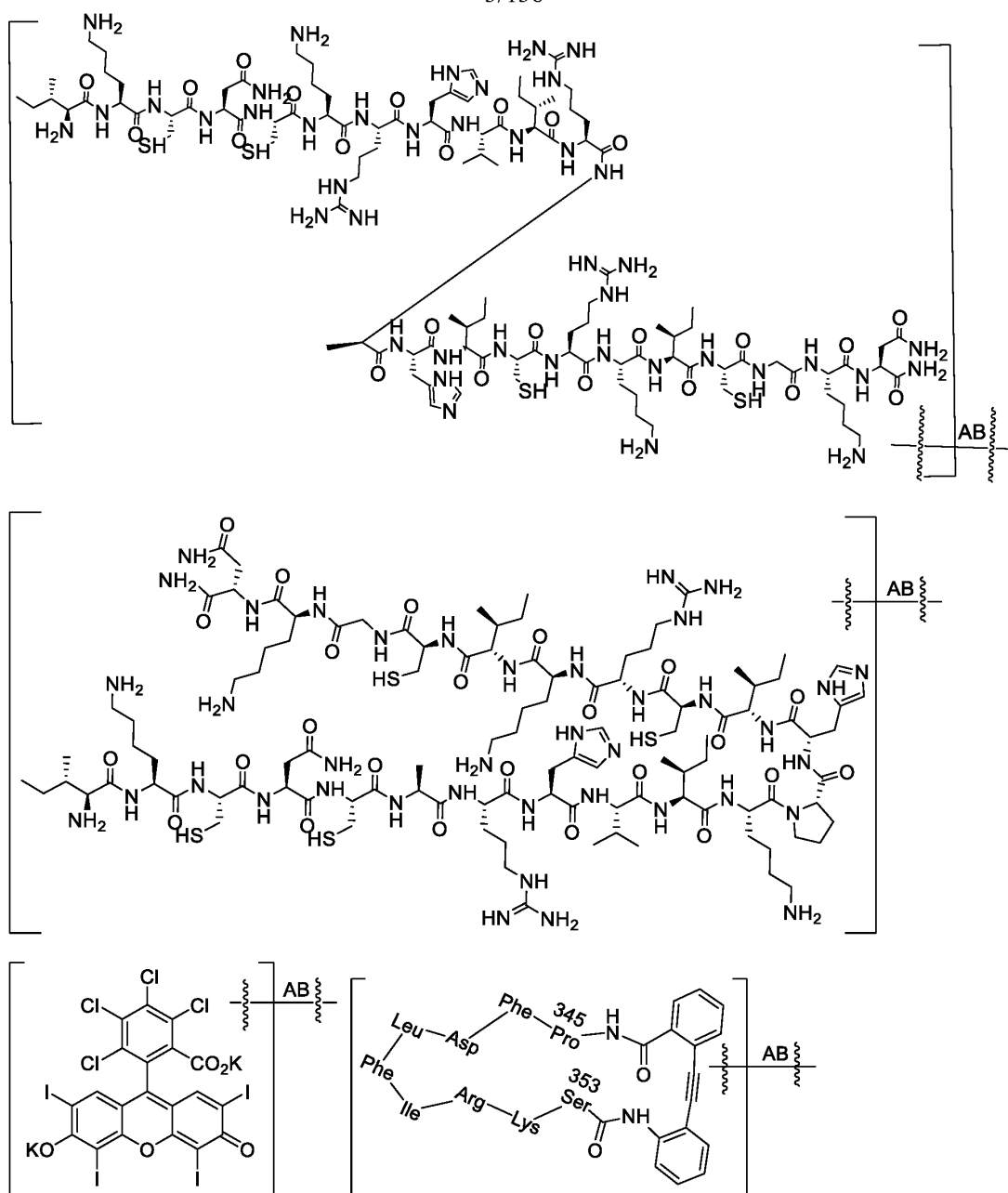


FIG. 1C

[illegible]

FIG. 1D

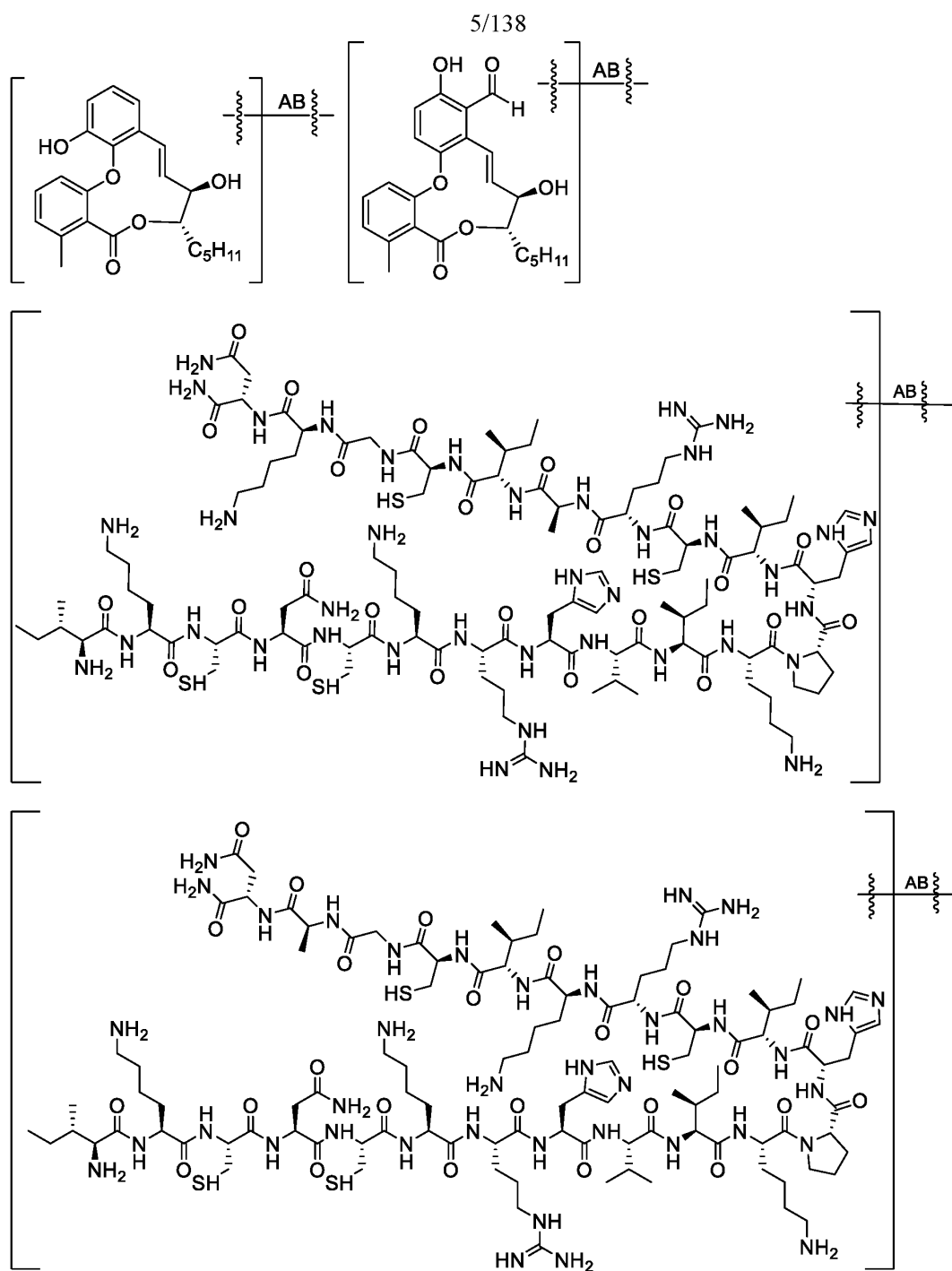


FIG. 1E

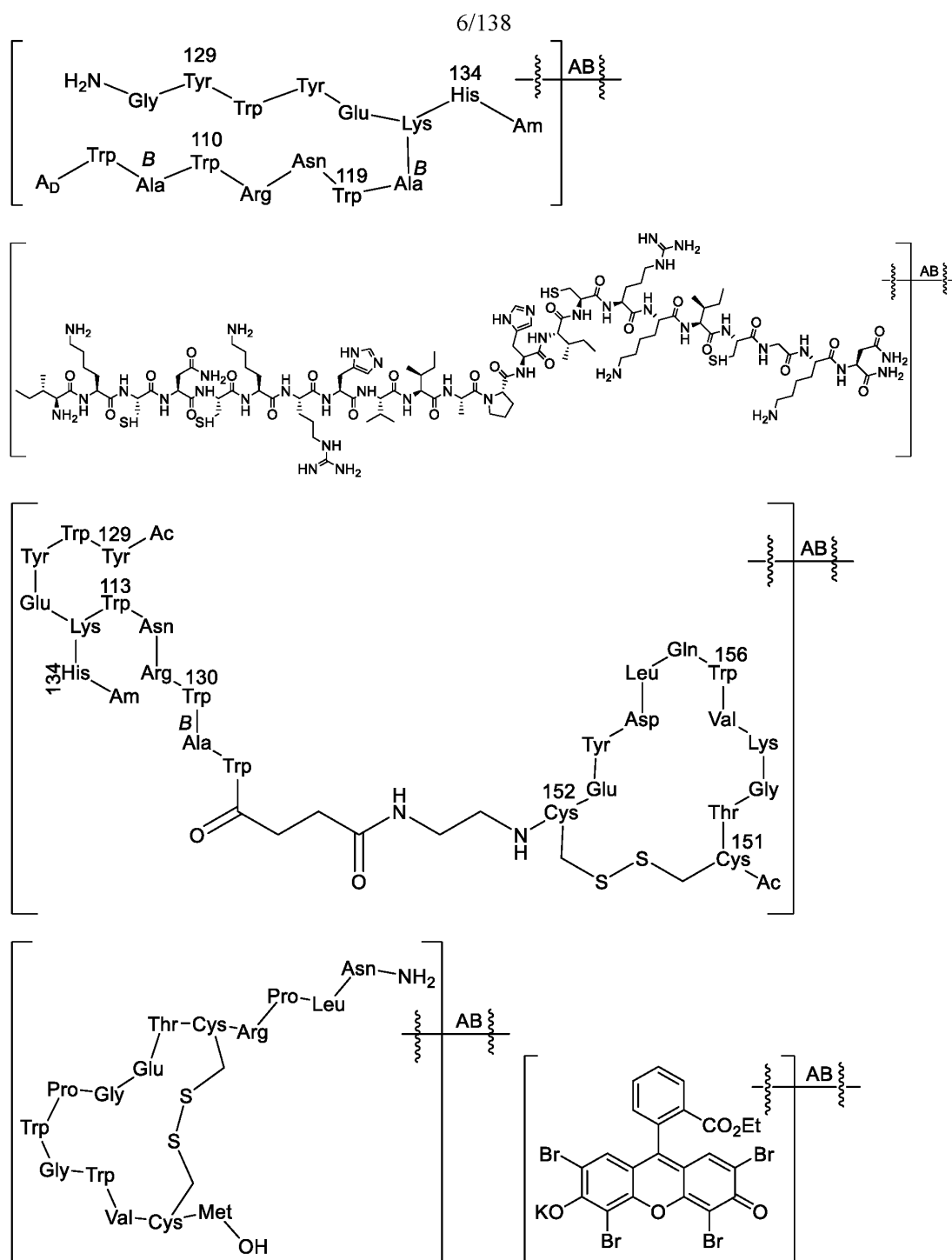


FIG. 1F

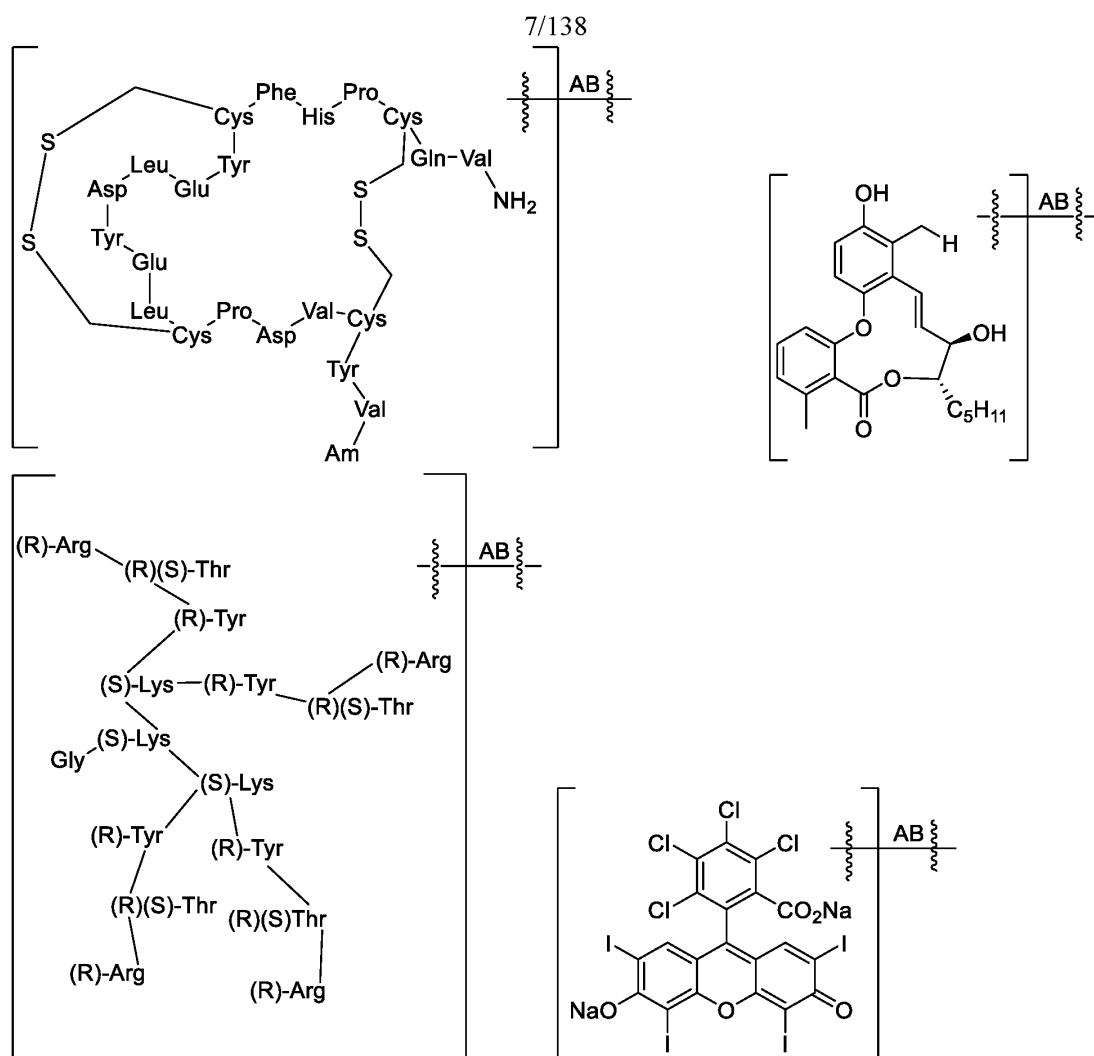


FIG. 1G

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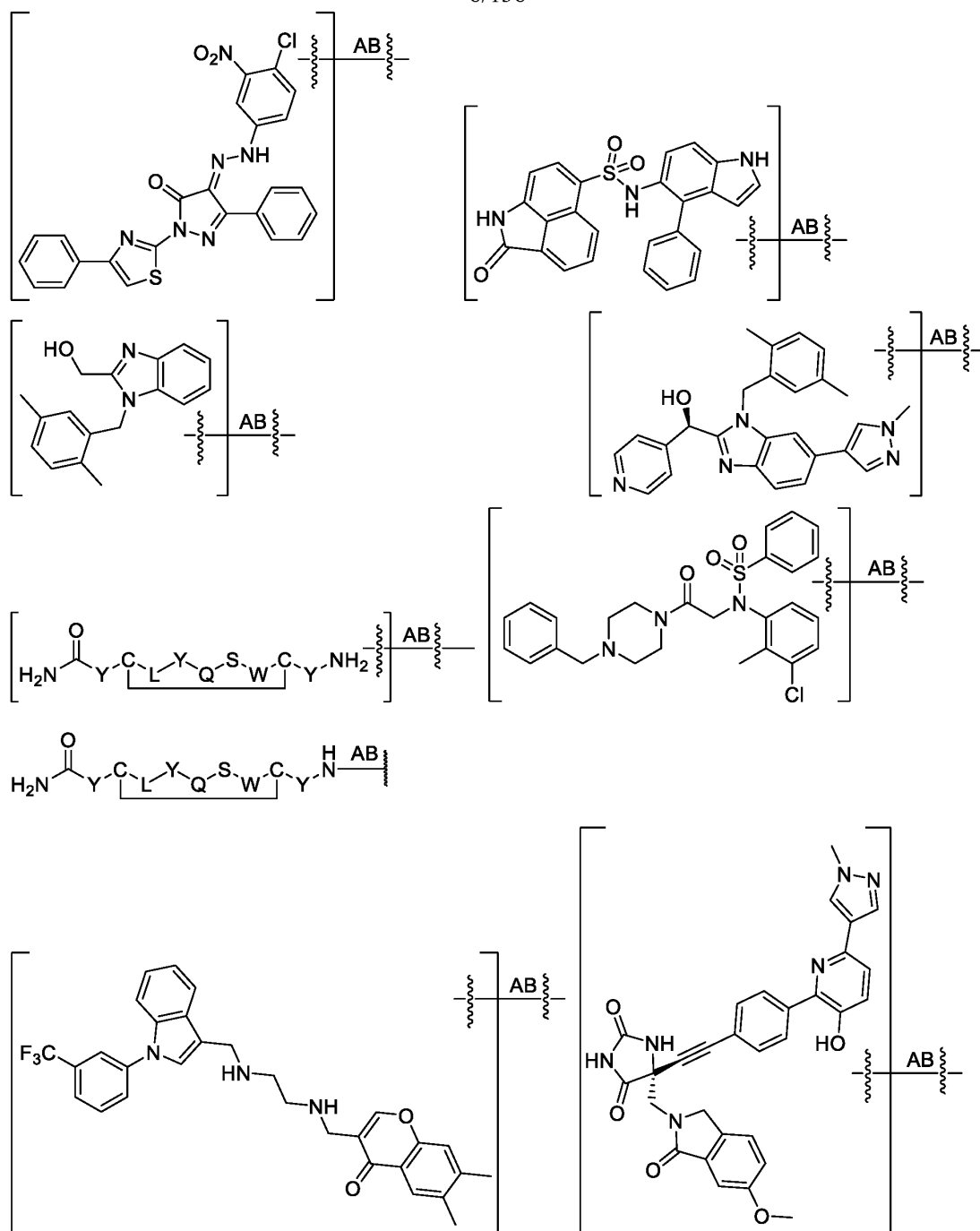


FIG. 1H

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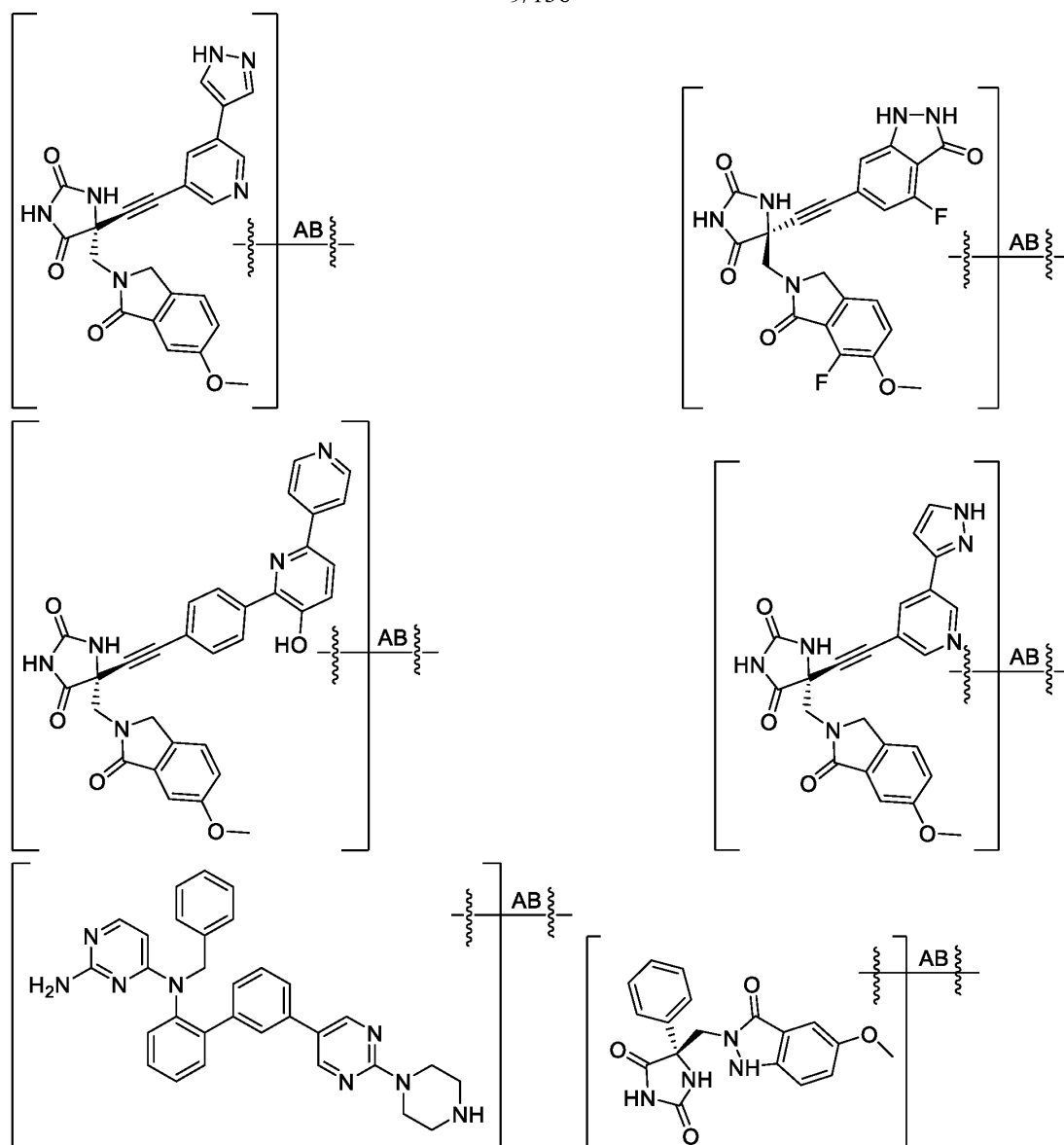


FIG. 11

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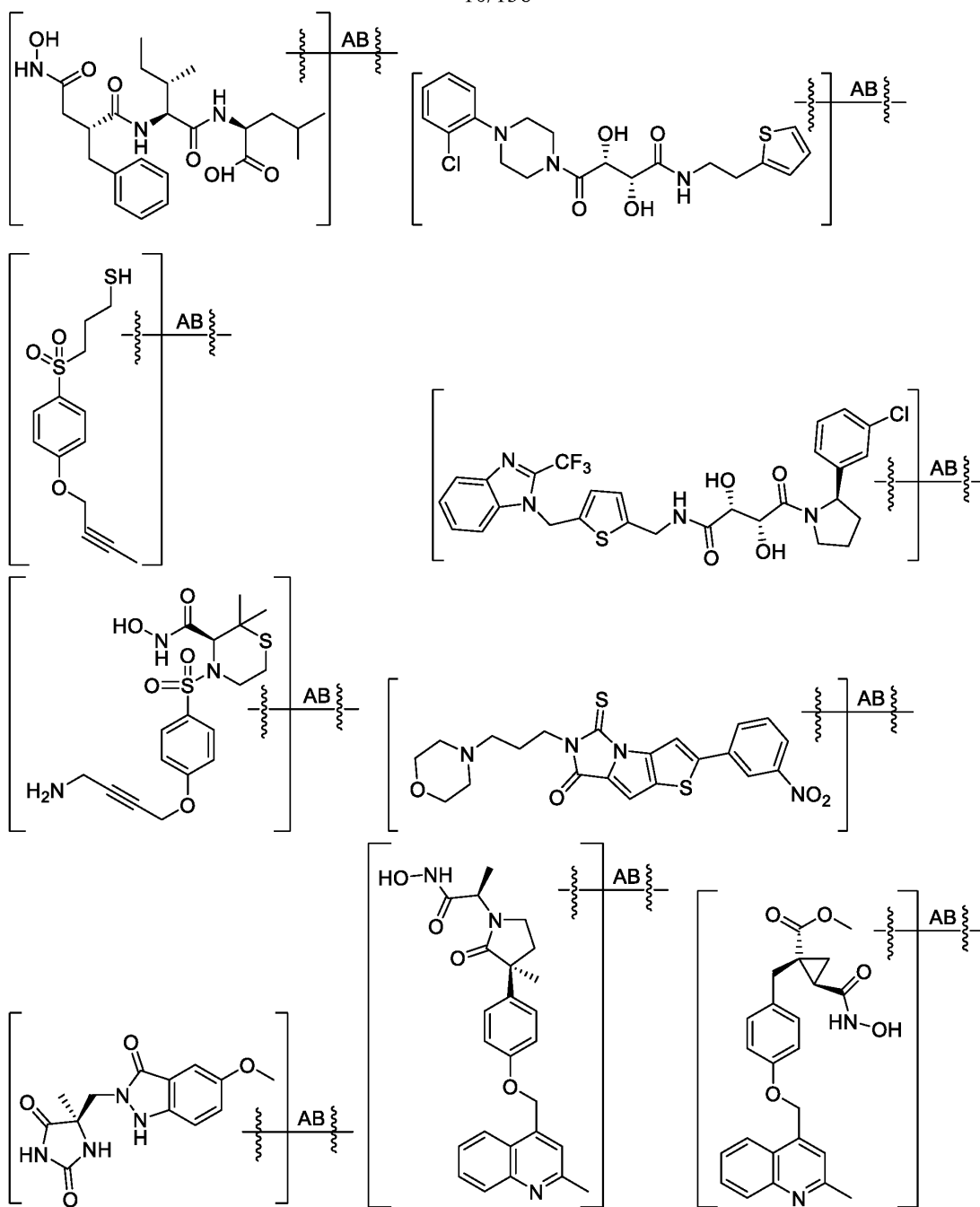


FIG. 1J

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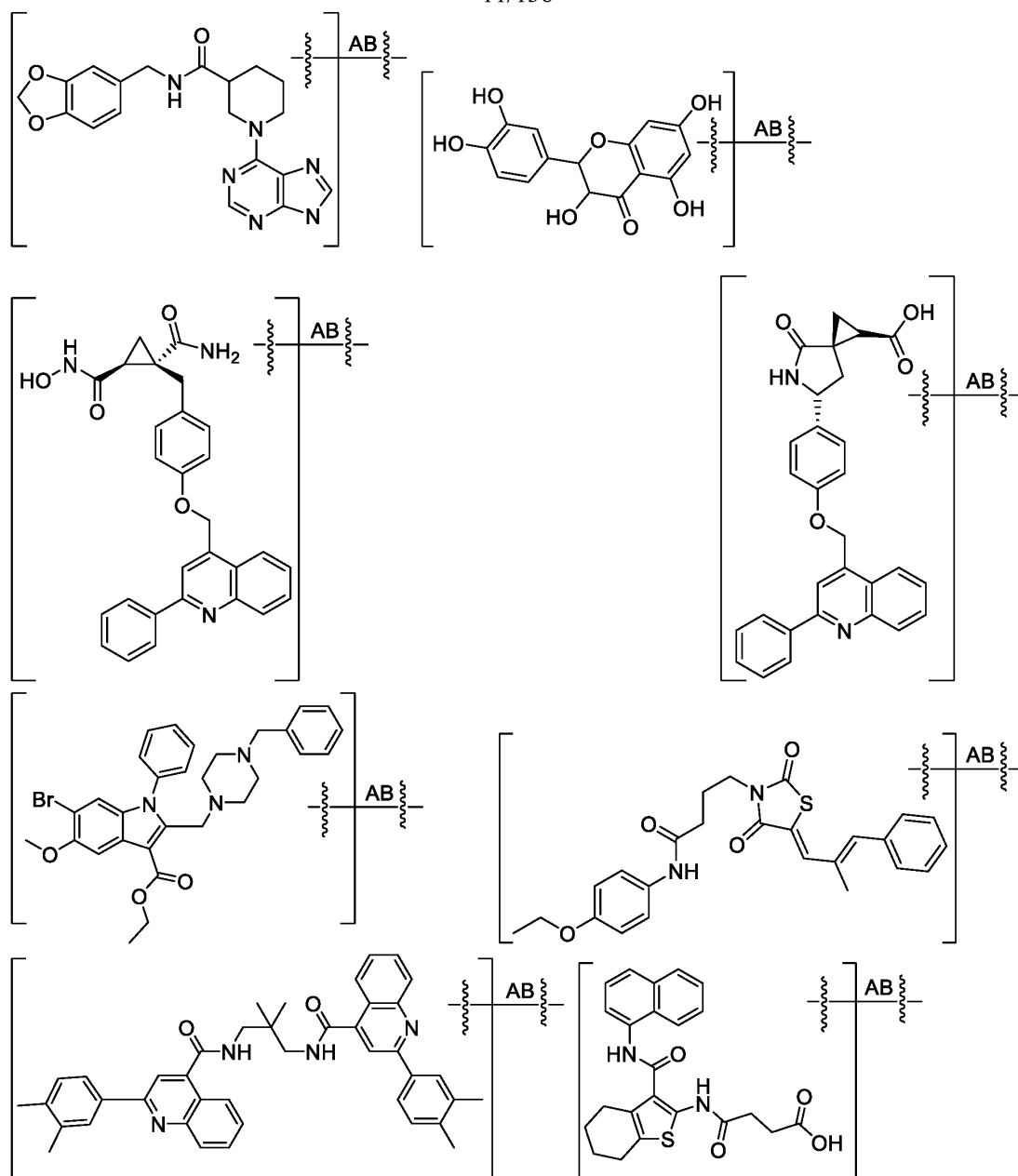


FIG. 1K

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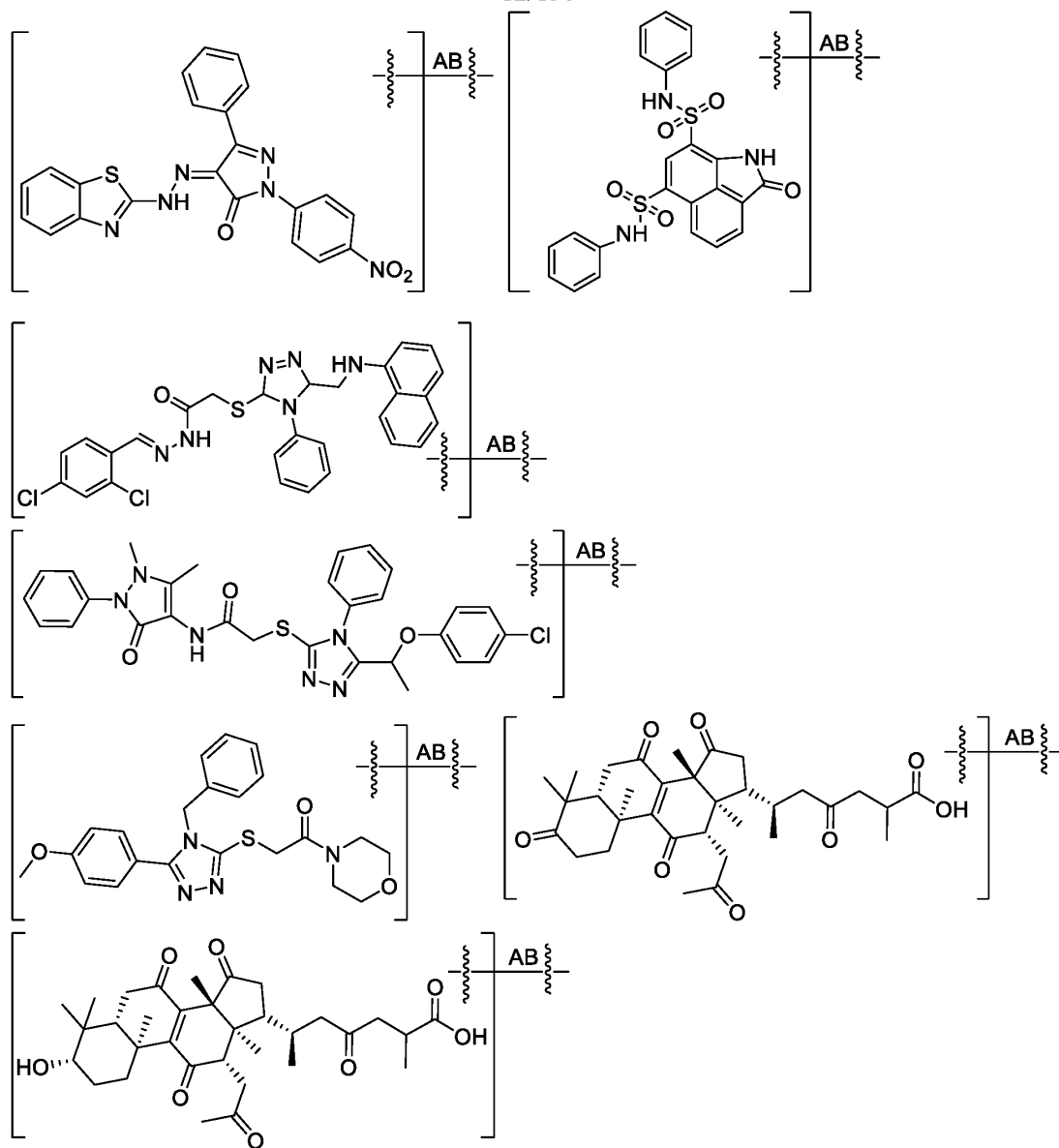


FIG. 1L

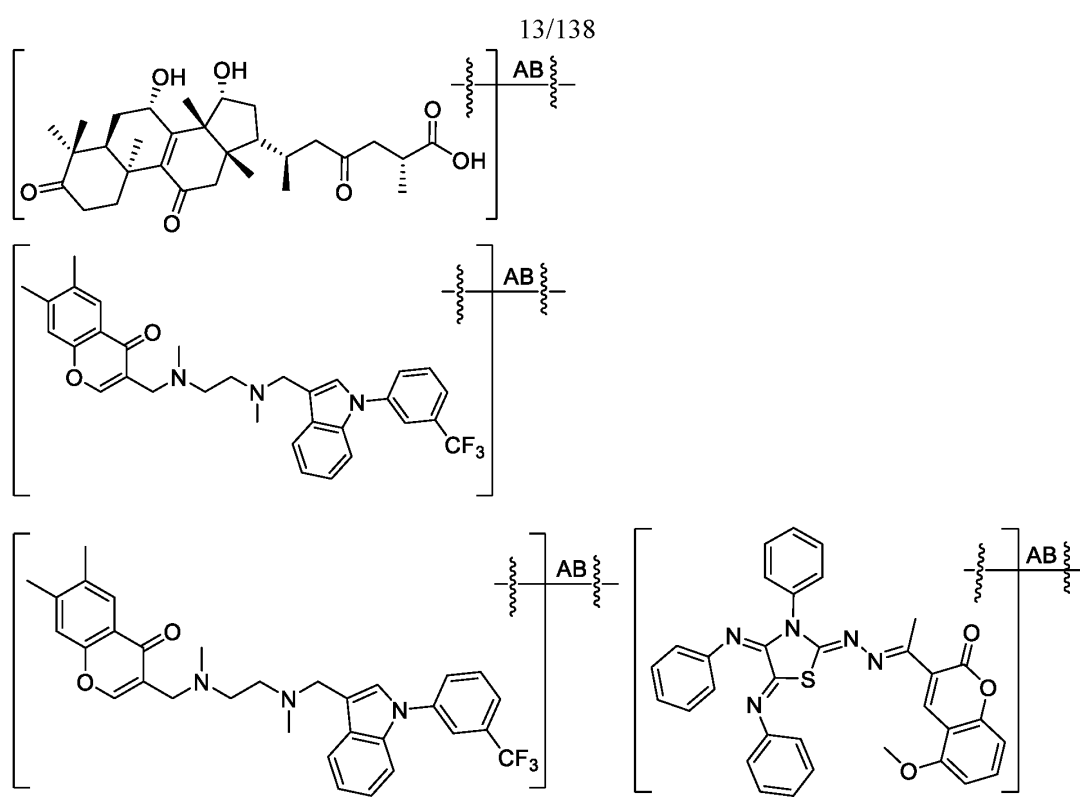


FIG. 1M

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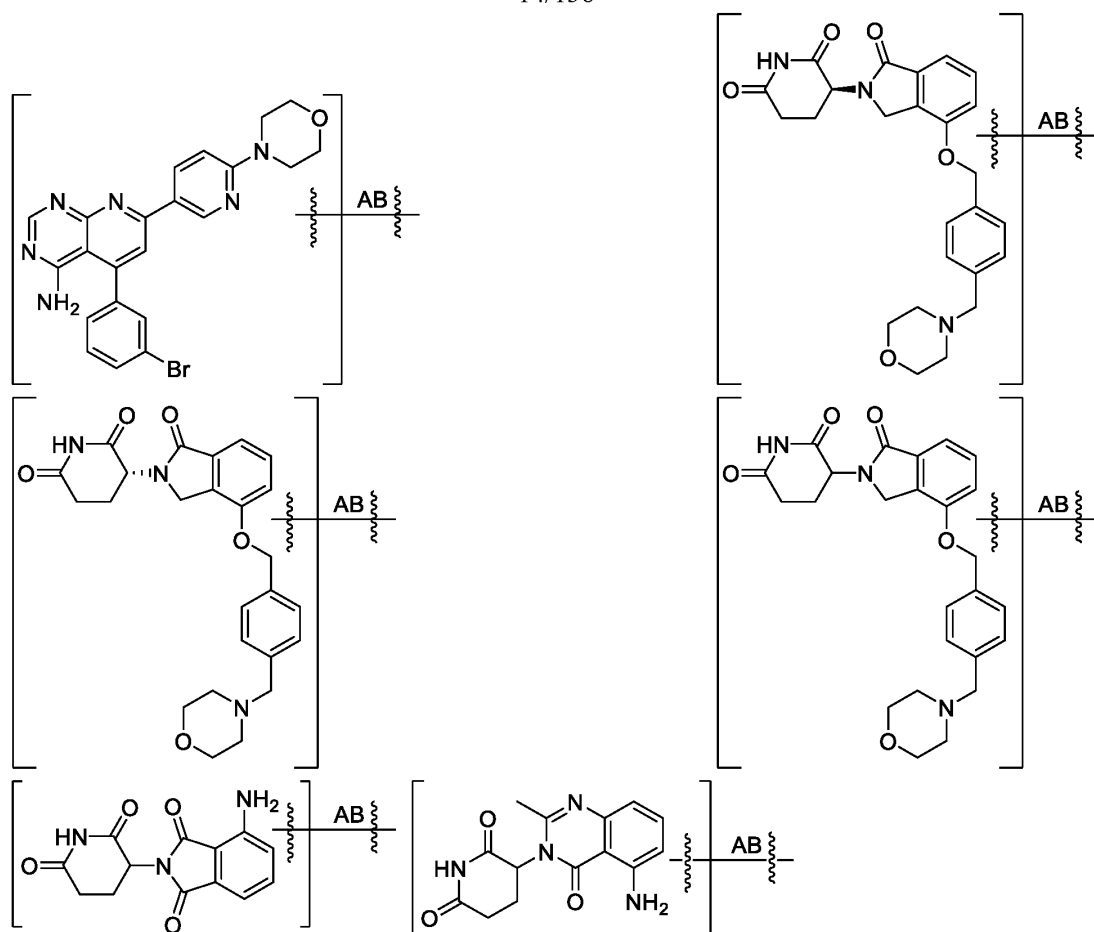


FIG. 1N

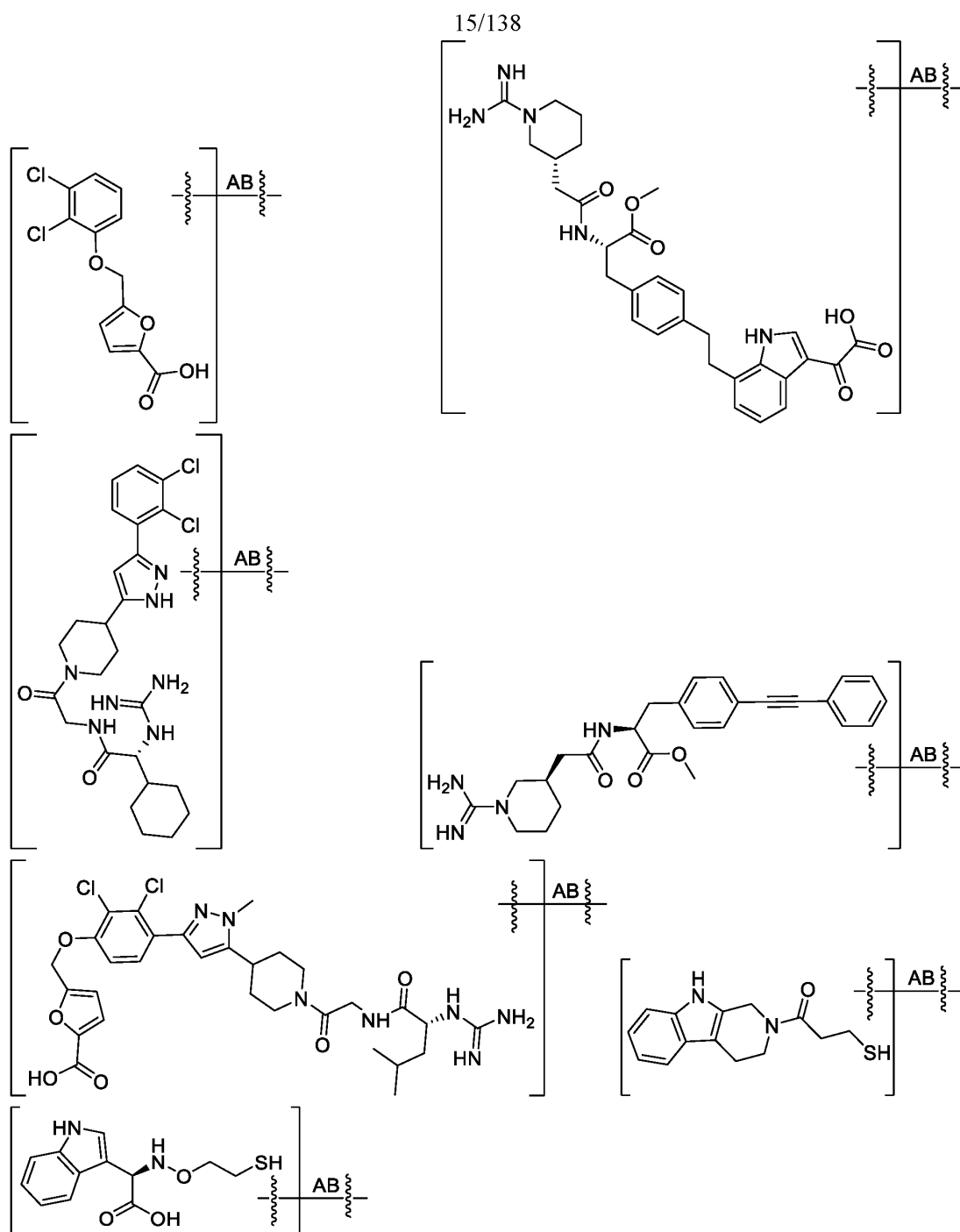


FIG. 10

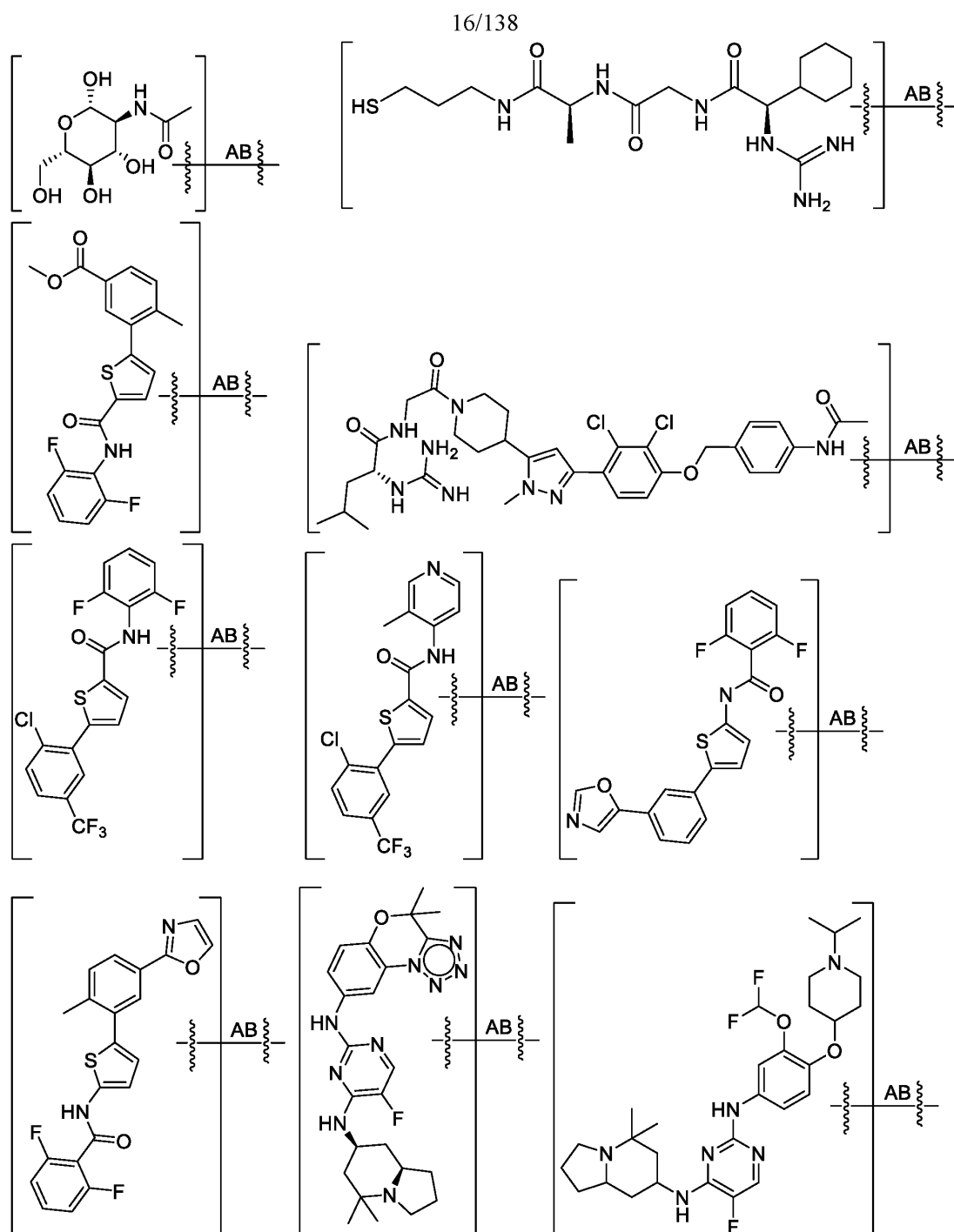


FIG. 1P

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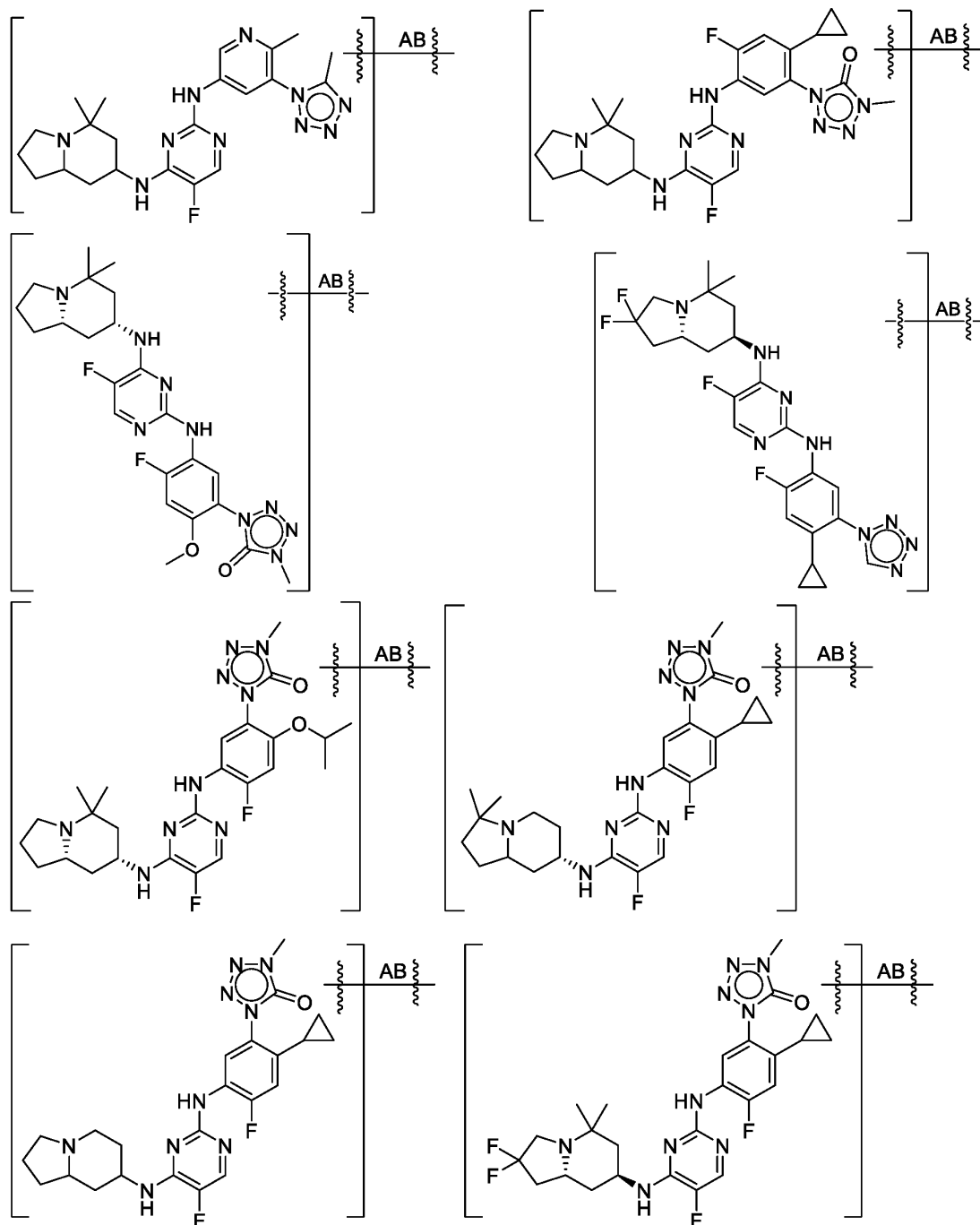


FIG. 1Q

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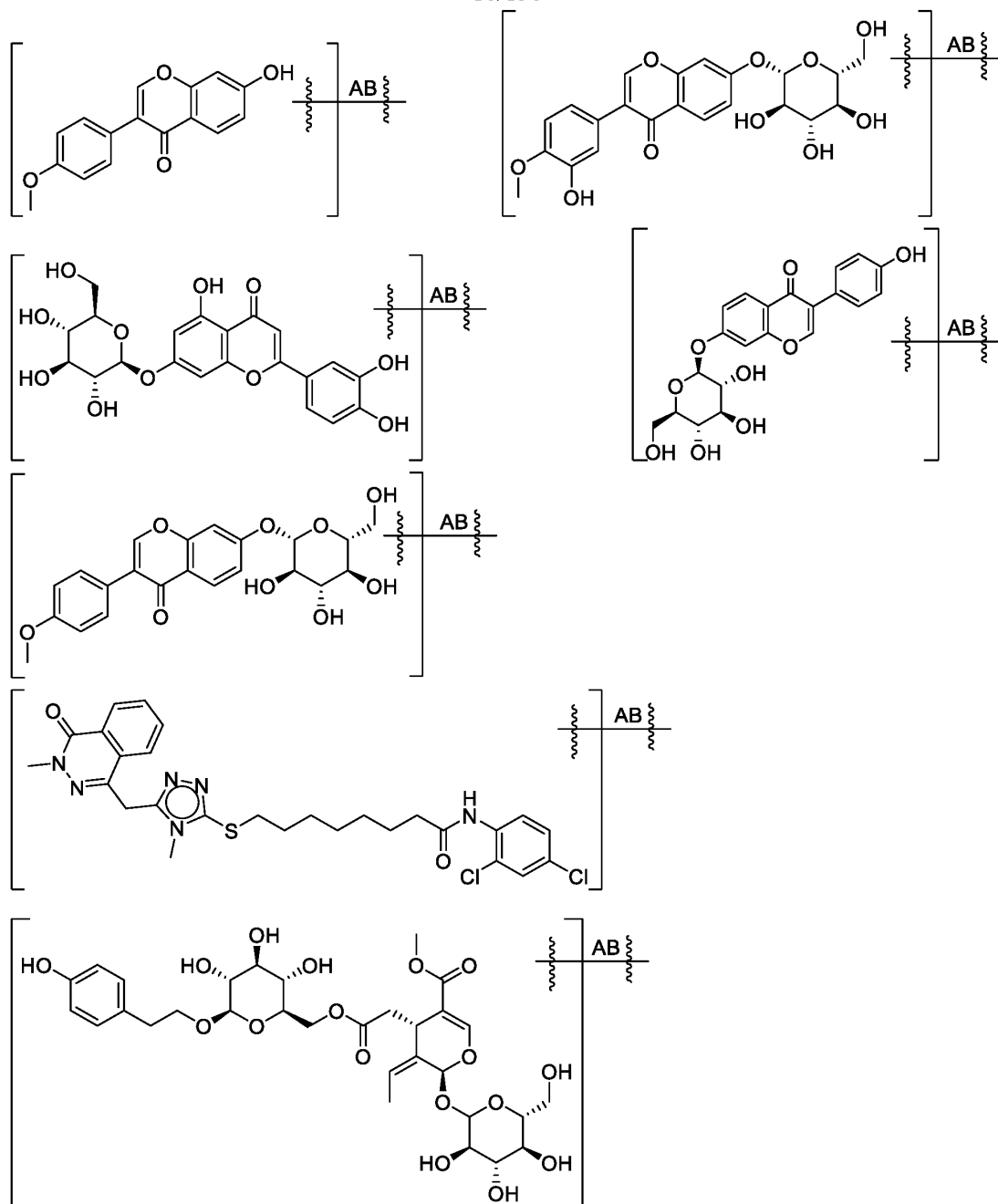


FIG. 1R

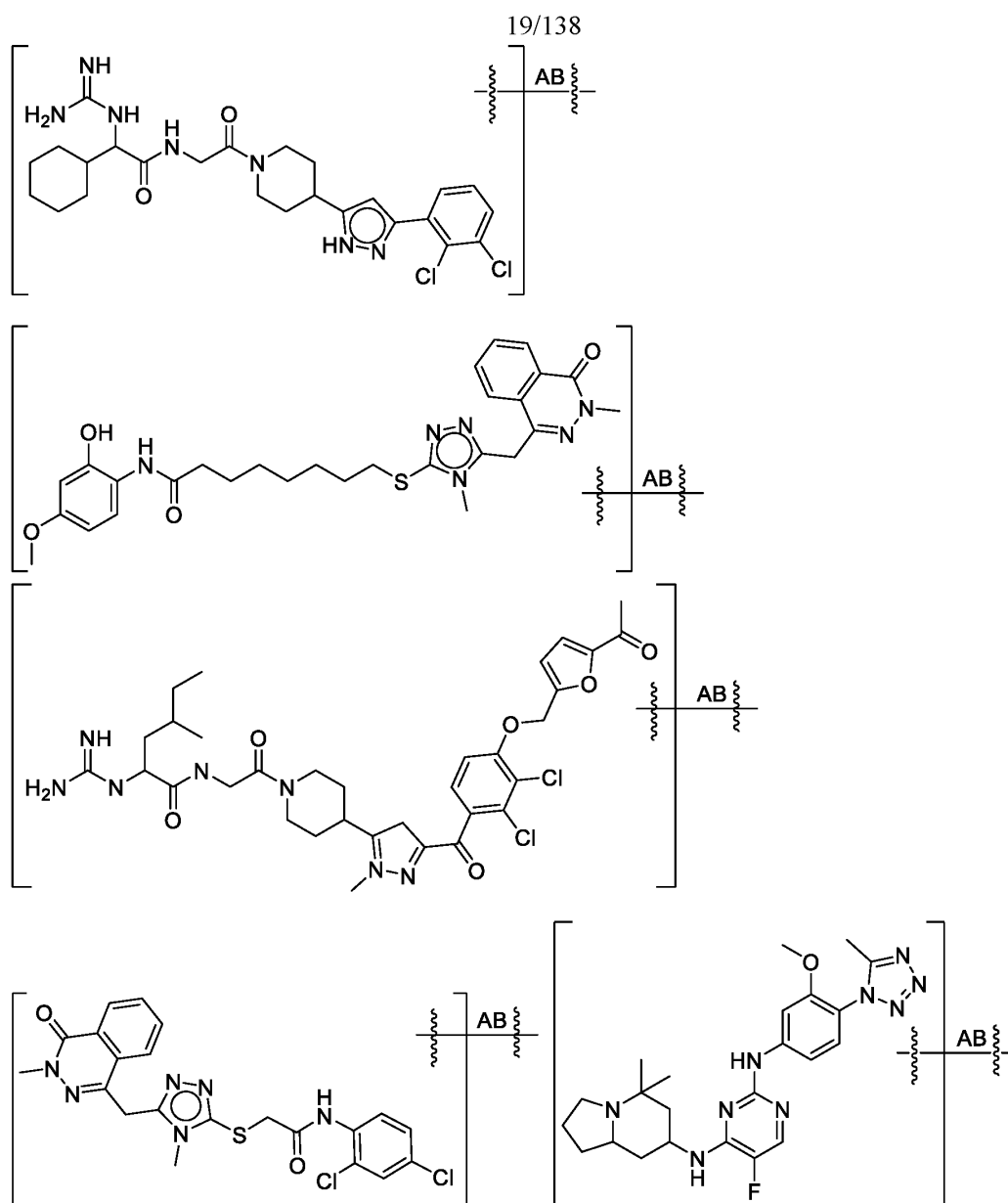


FIG. 1S

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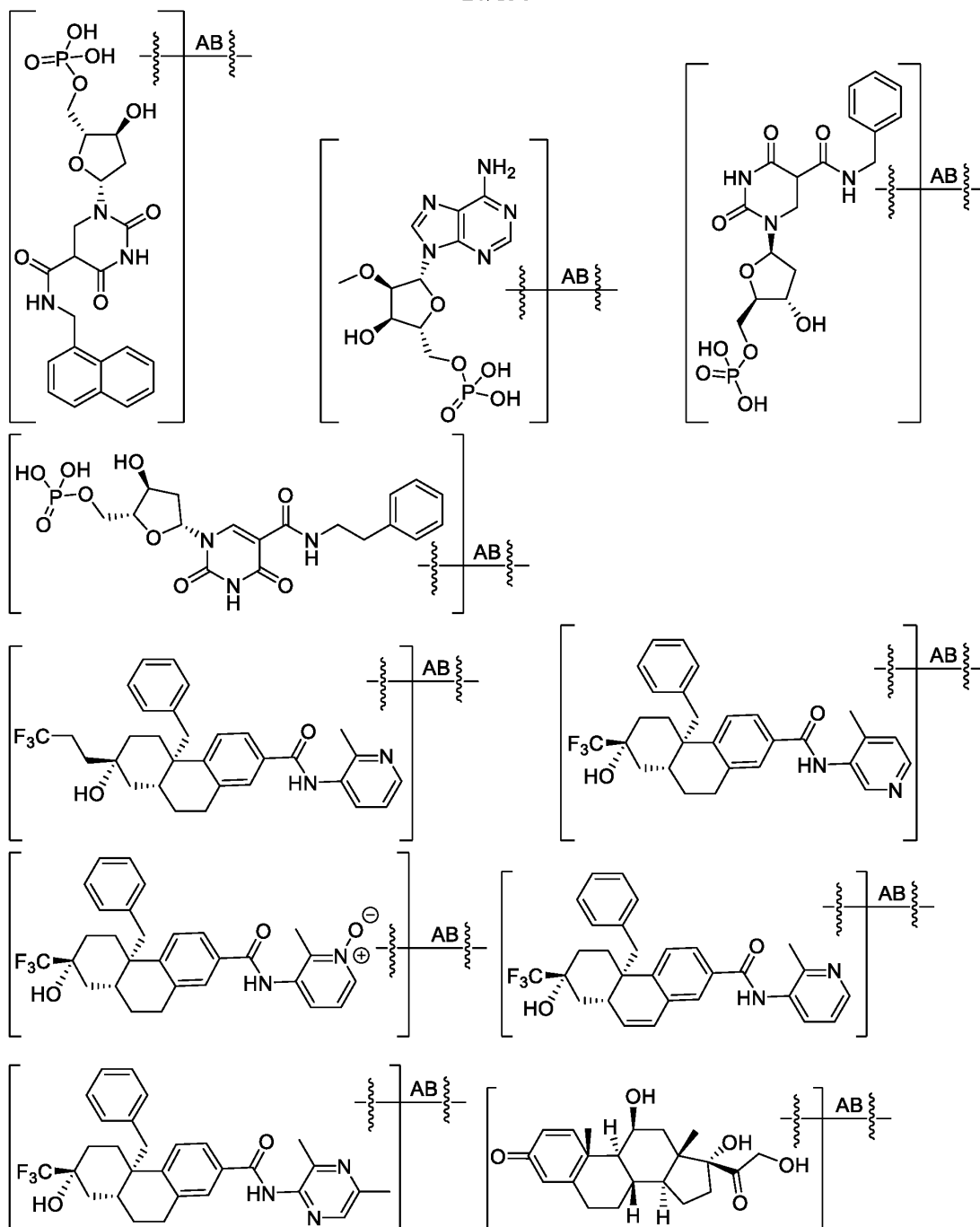


FIG. 1T

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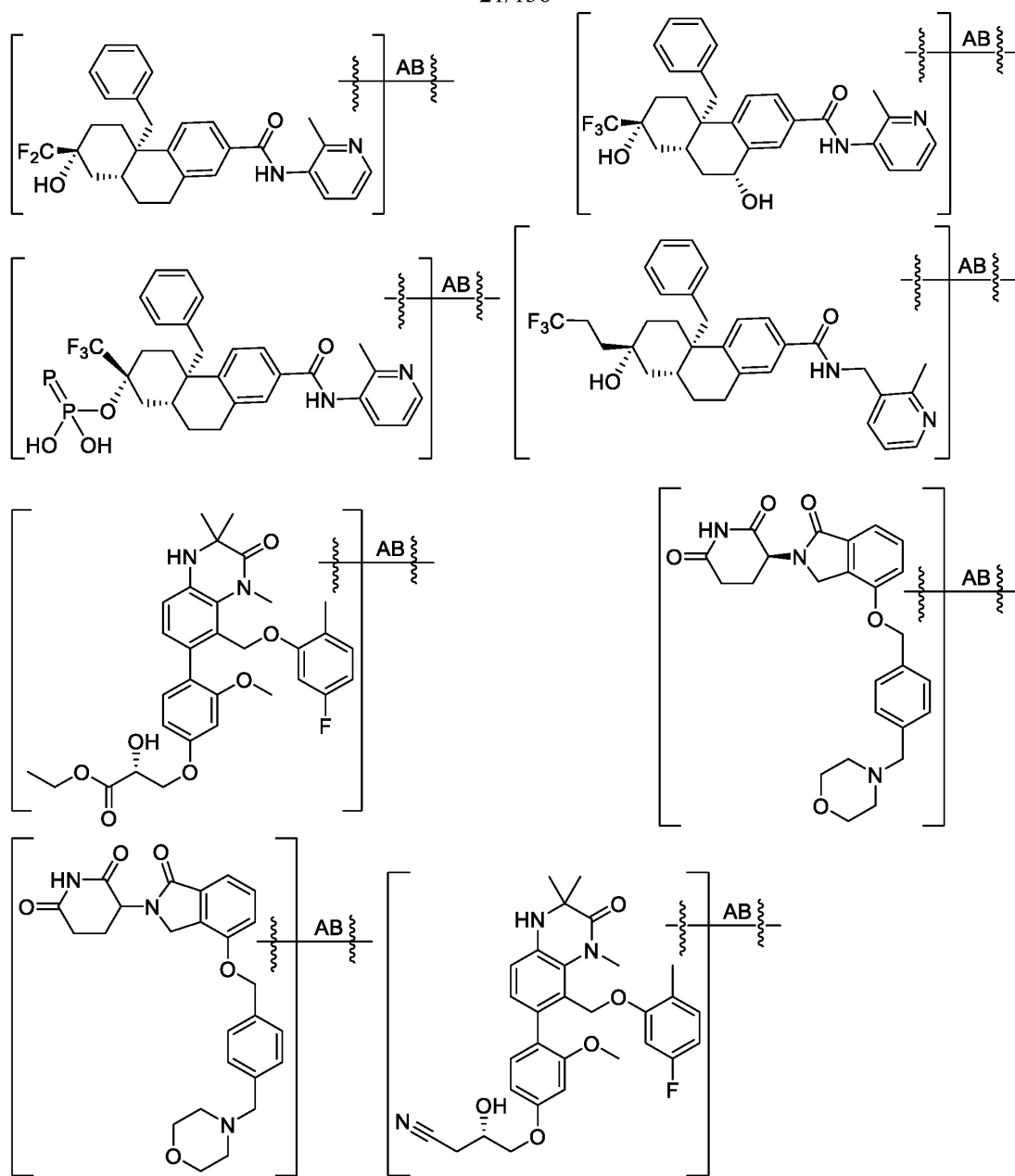


FIG. 1U

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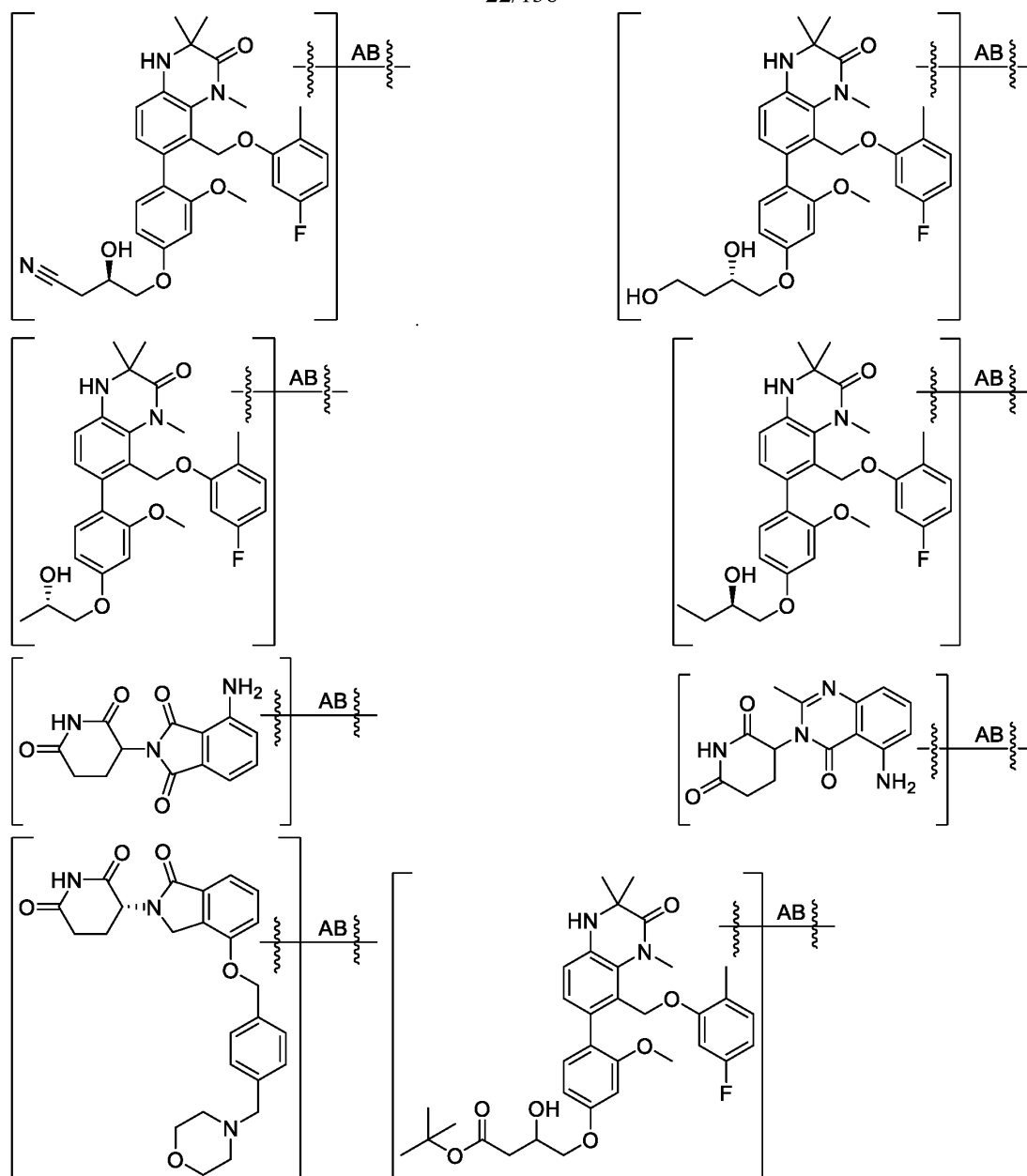


FIG. 1V

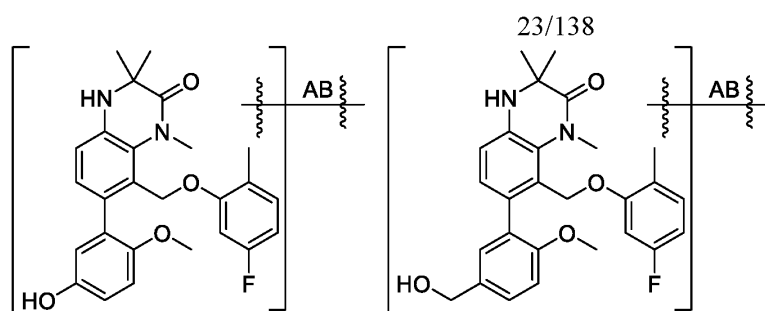


FIG. 1W

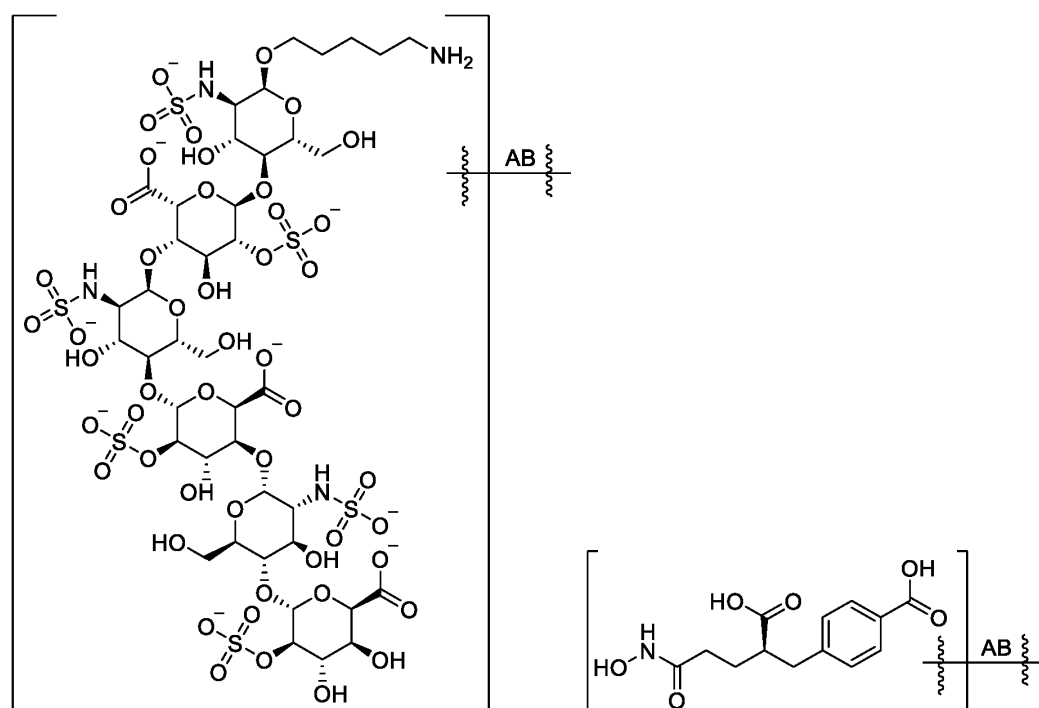


FIG. 1X

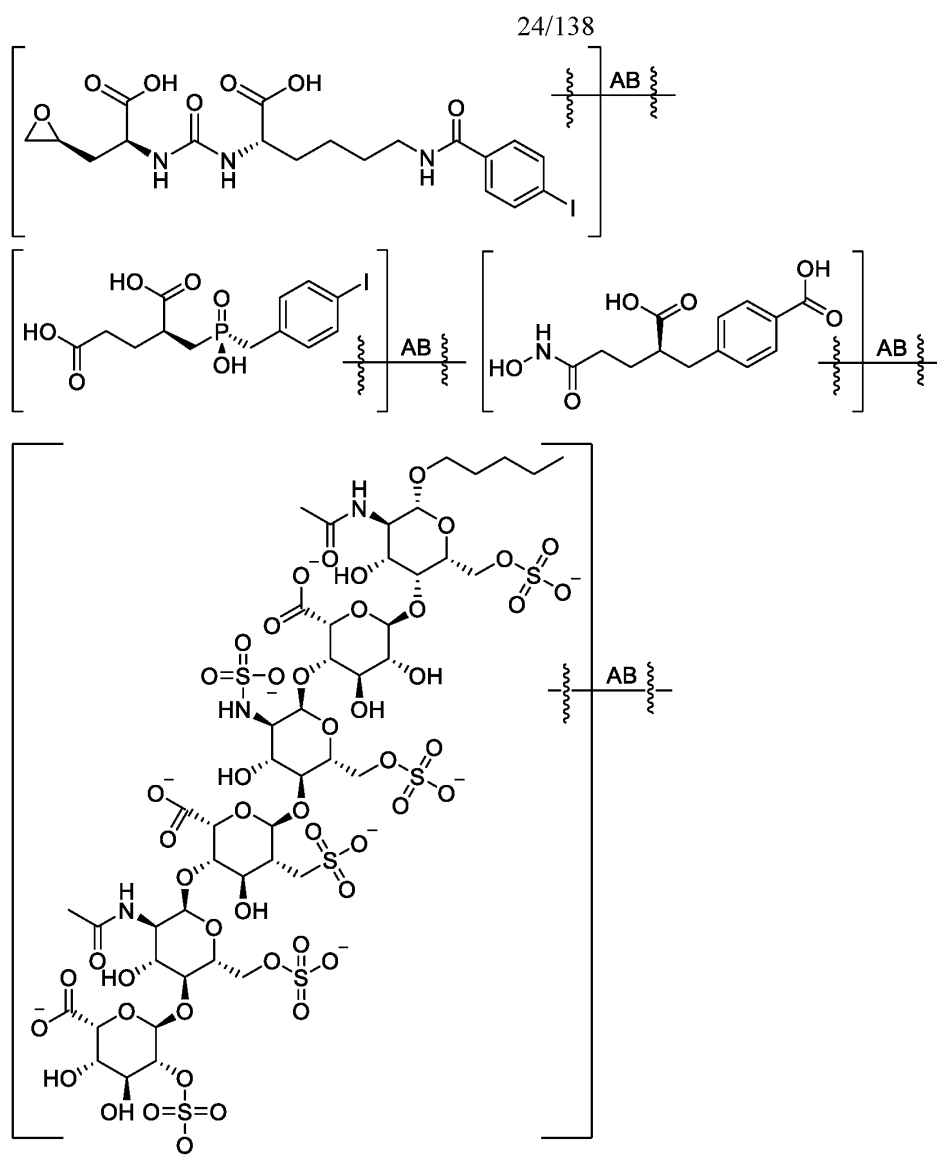


FIG. 1Y

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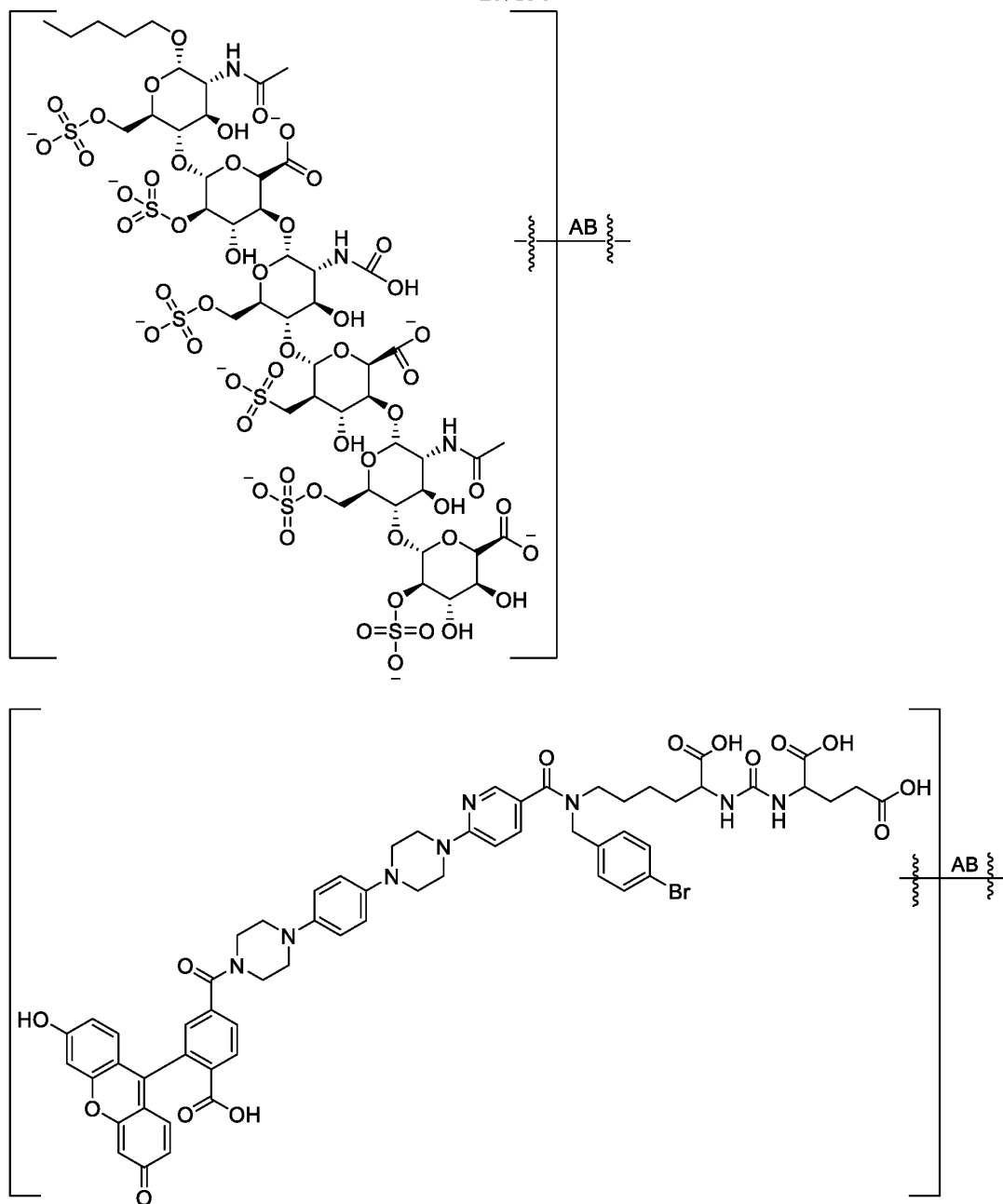


FIG. 1Z

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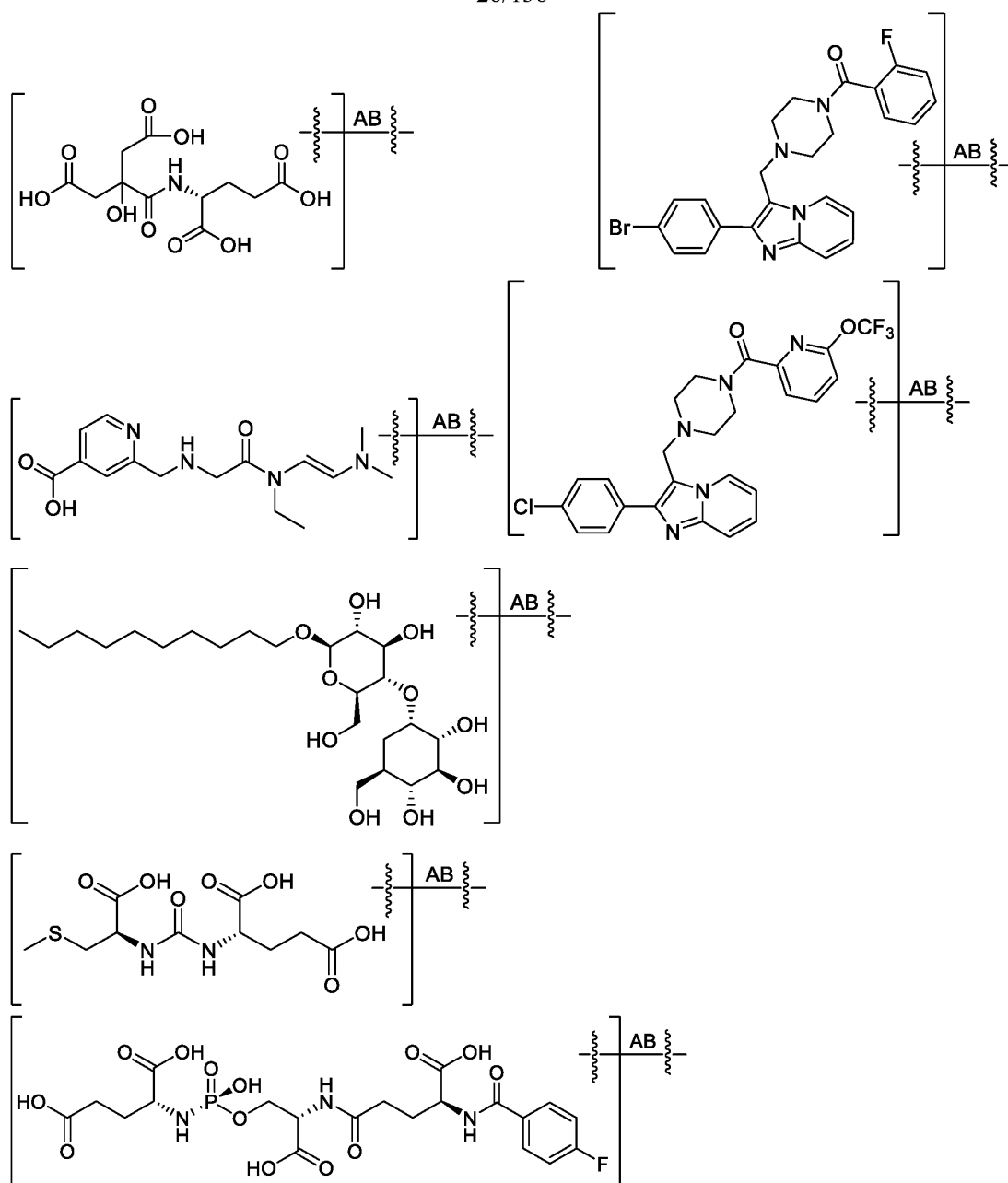


FIG. 1AA

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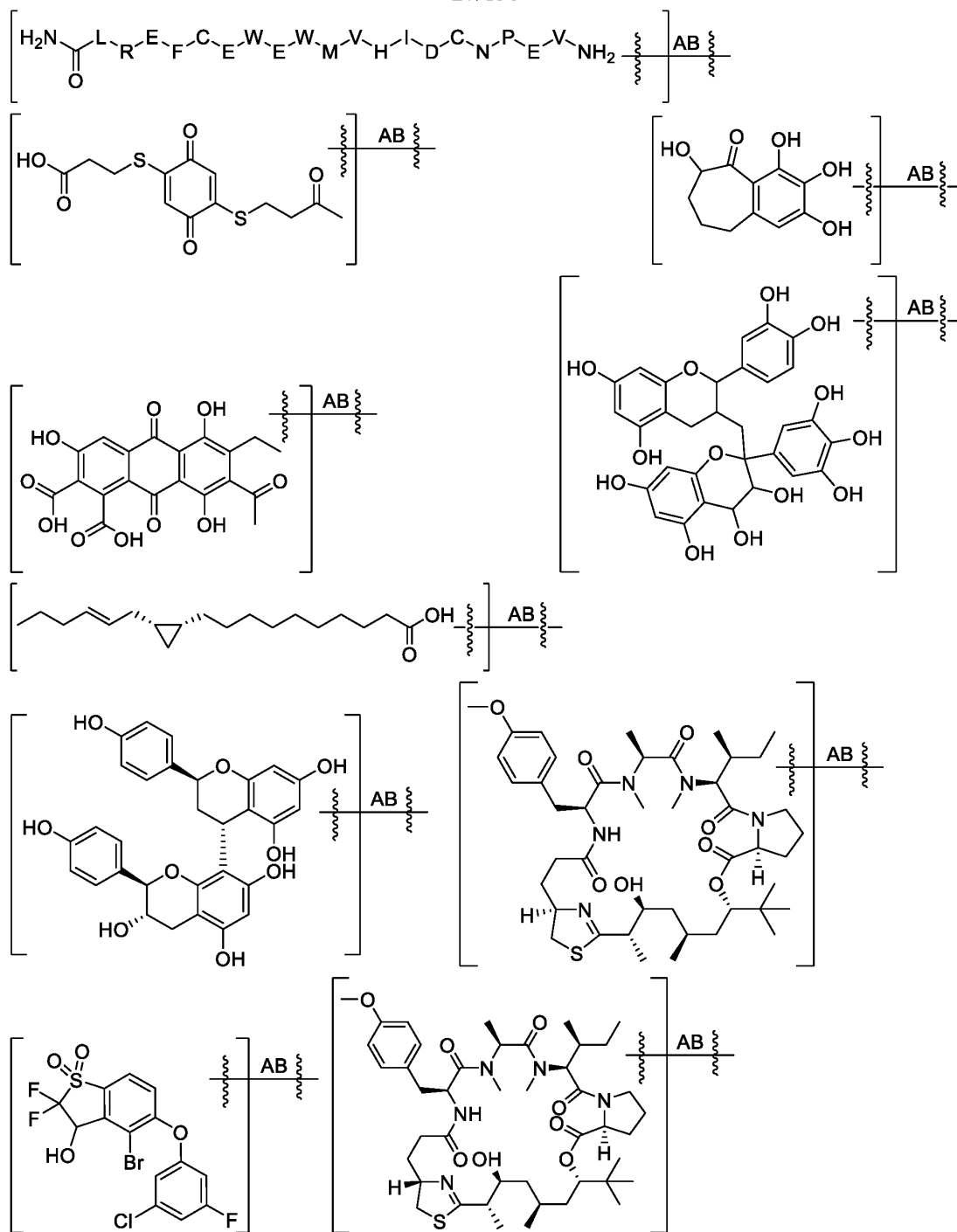


FIG. 1BB

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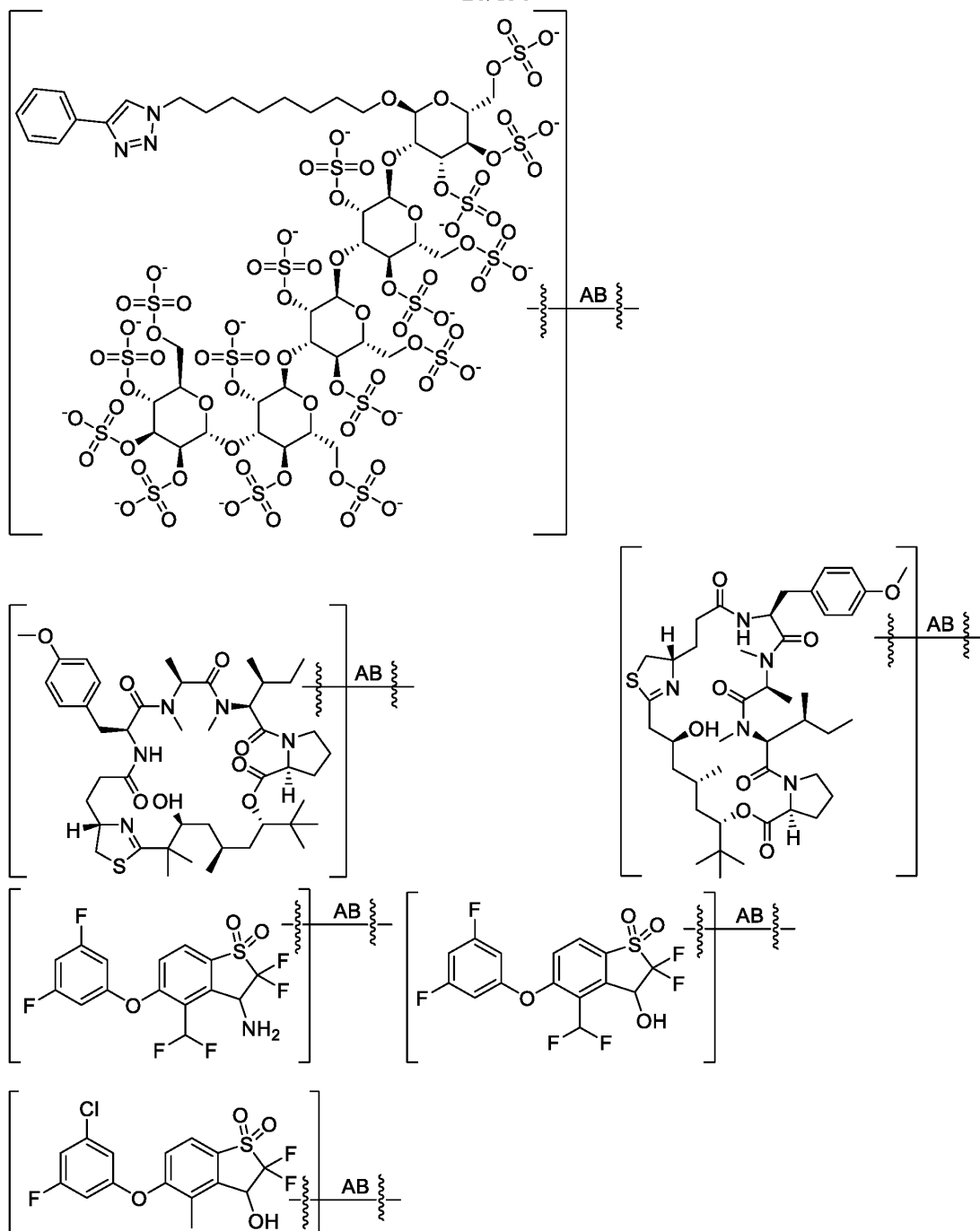


FIG. 1CC

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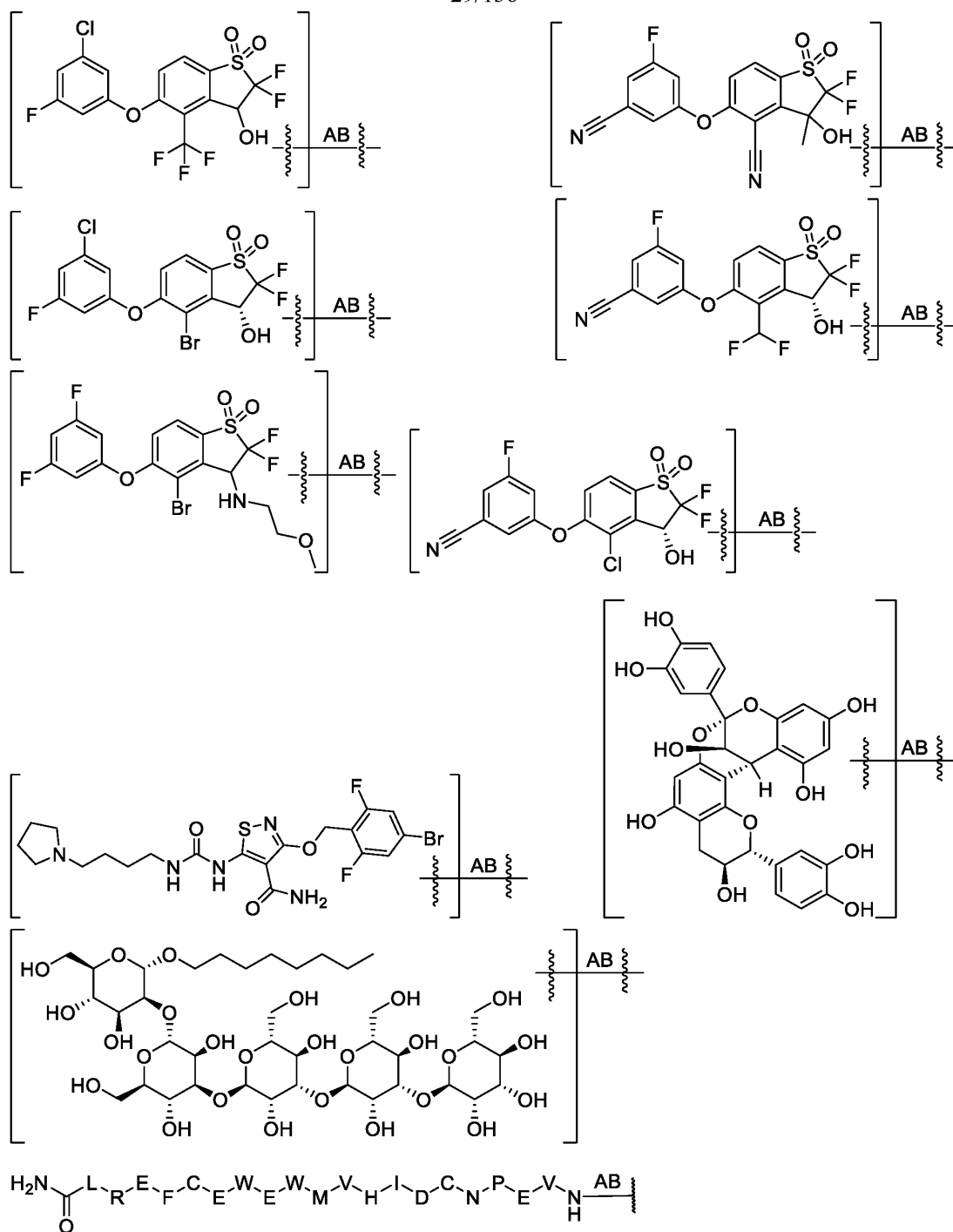


FIG. 1DD

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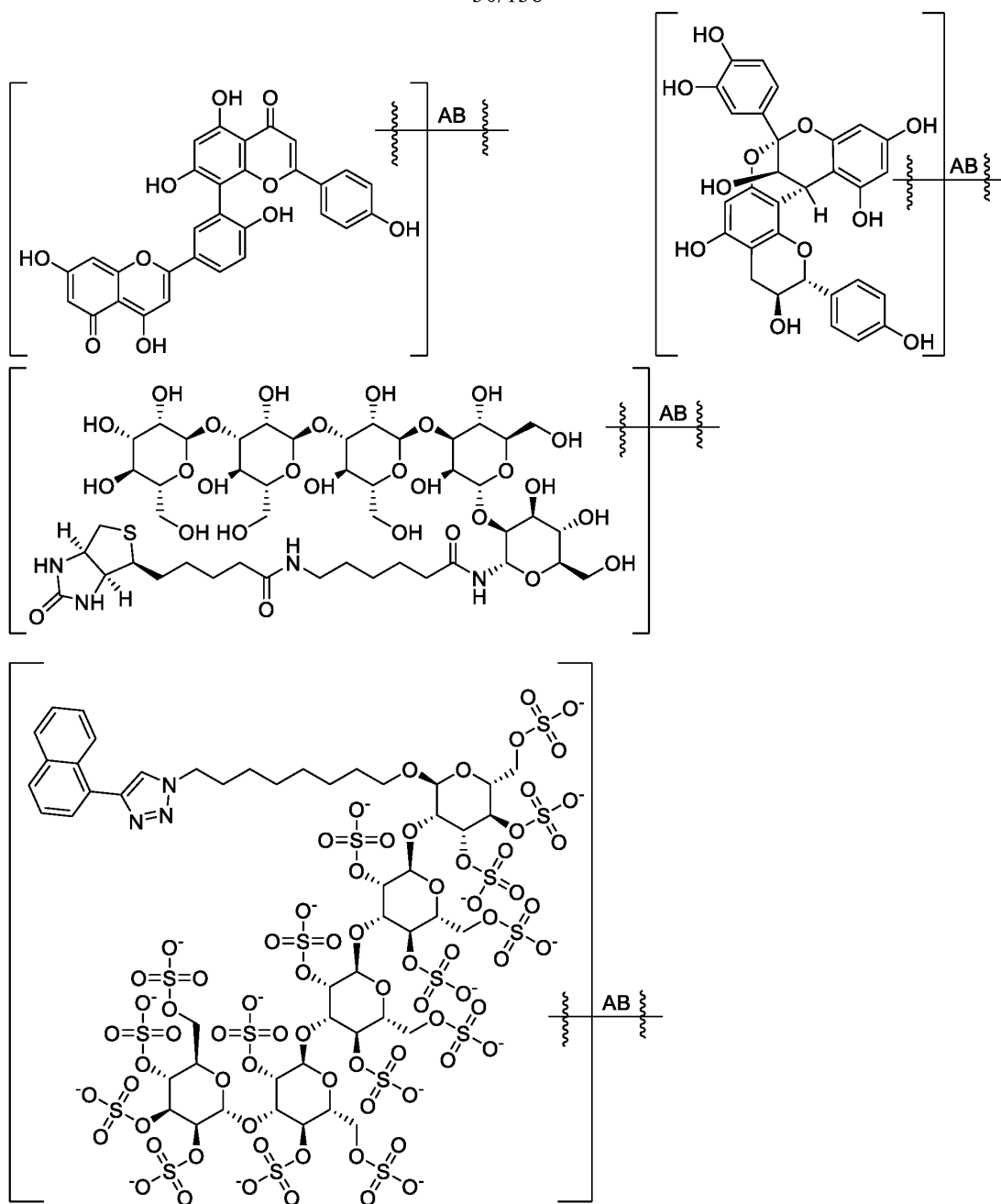


FIG. 1EE

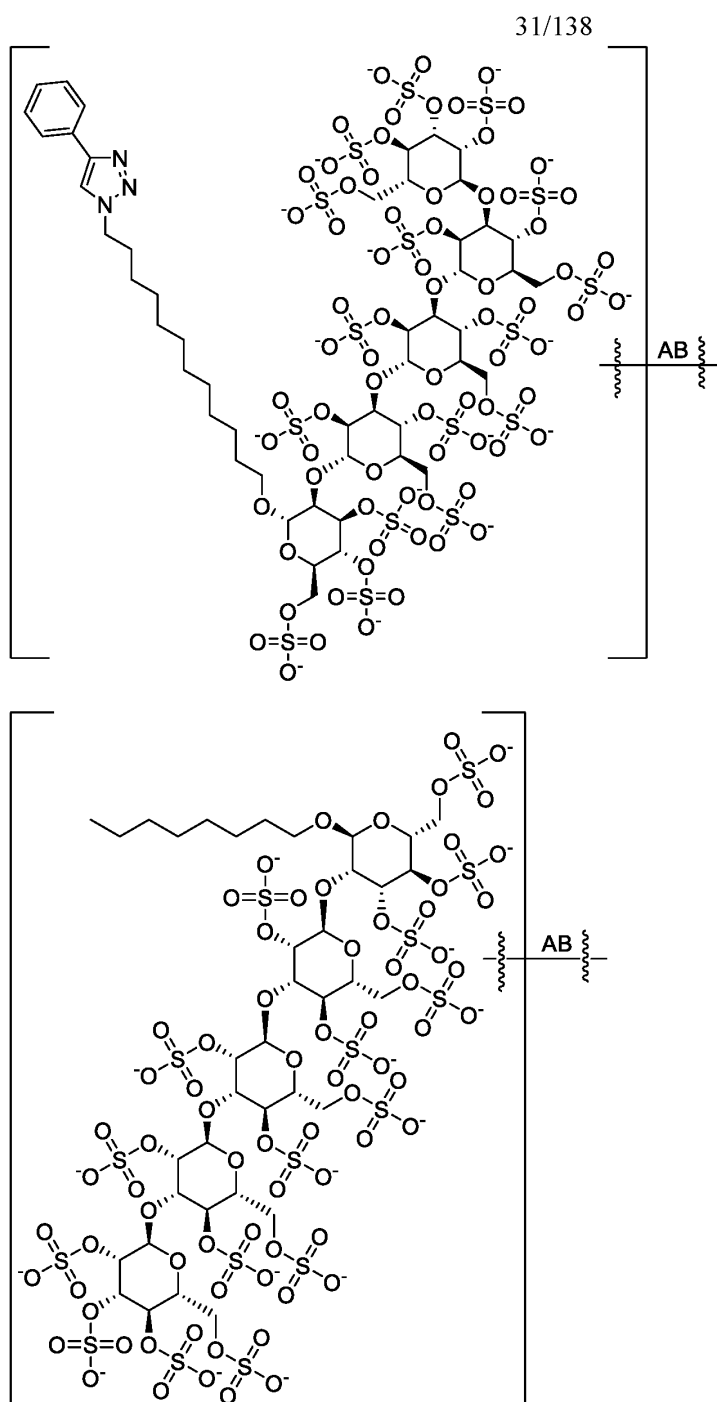


FIG. 1FF

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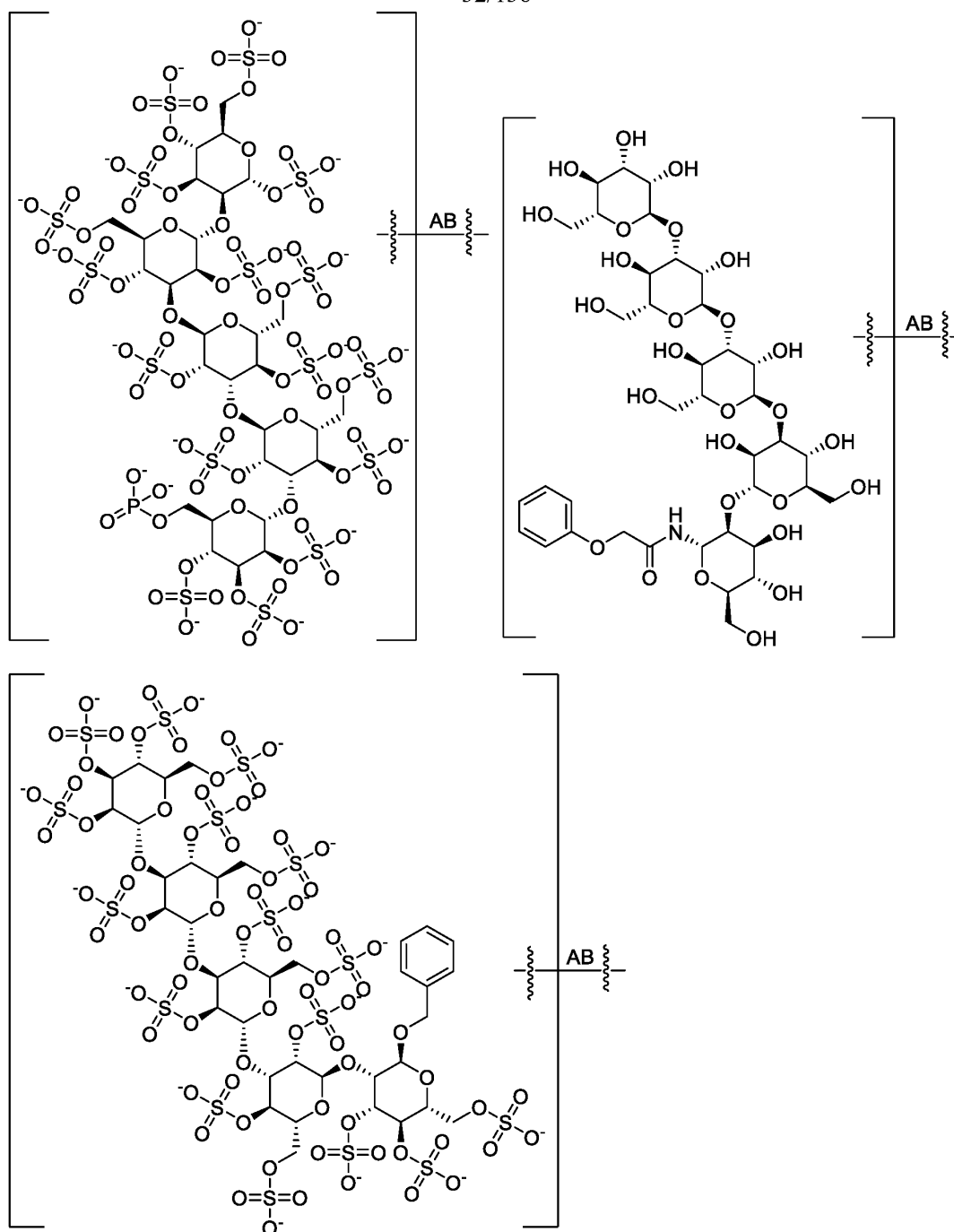


FIG. 1GG

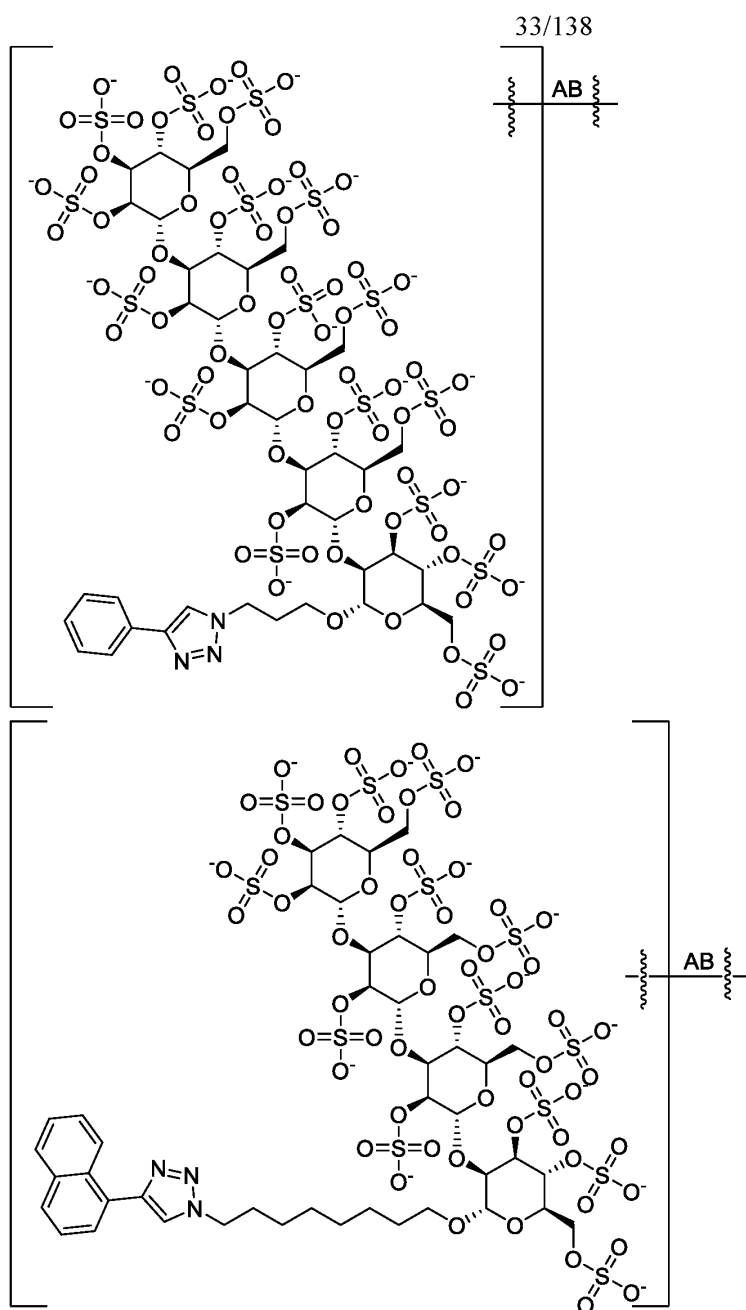


FIG. 1HH

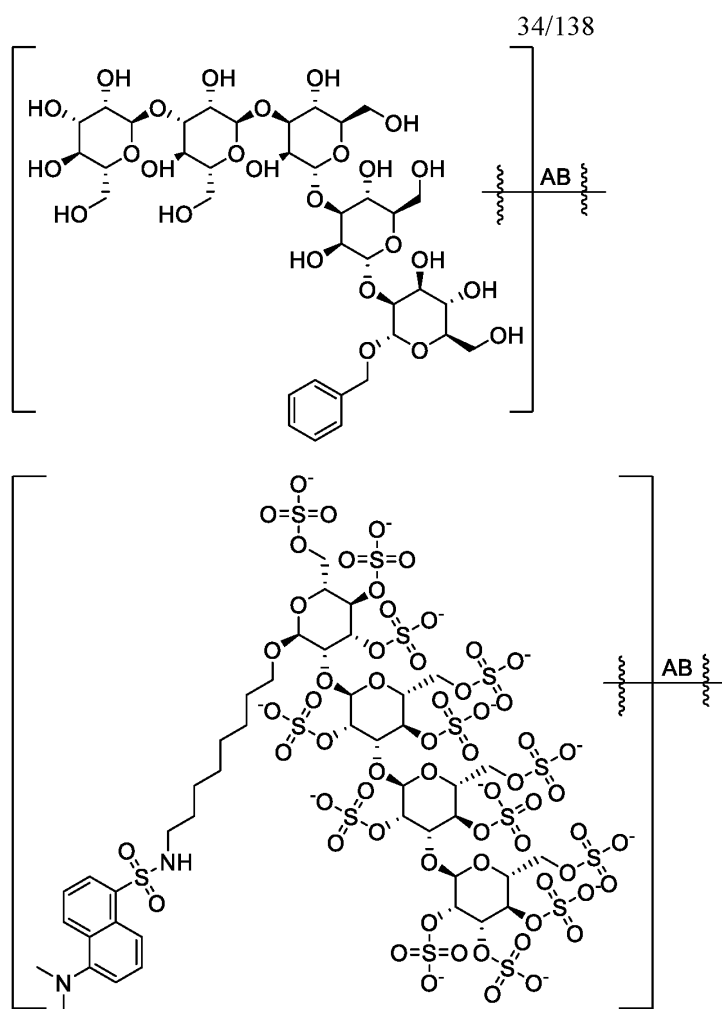


FIG. 1II

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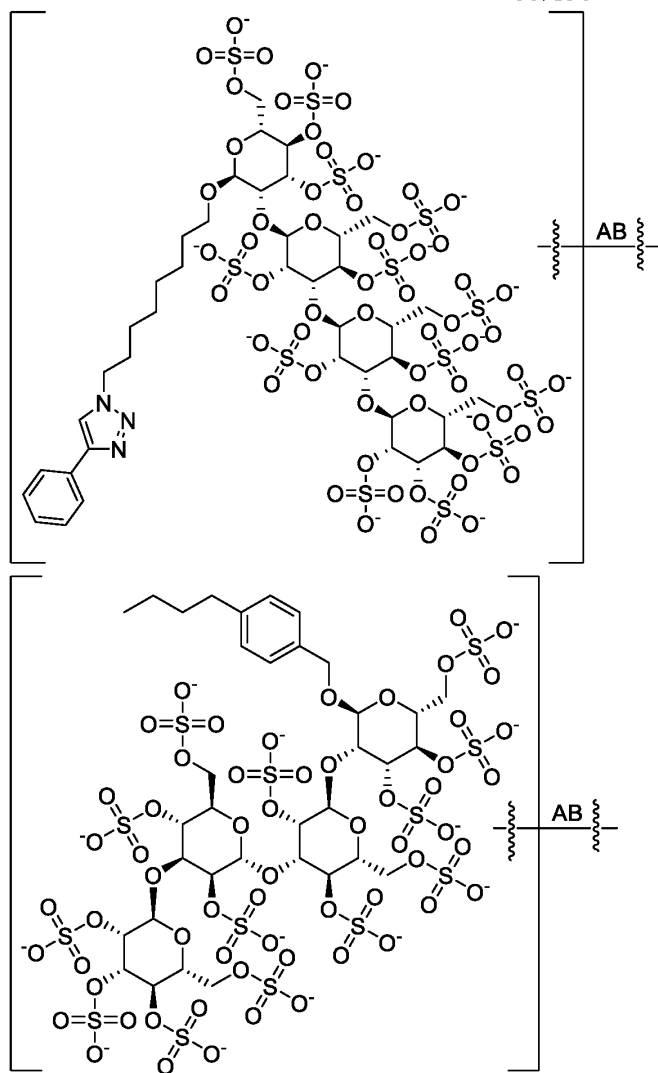


FIG. 1JJ

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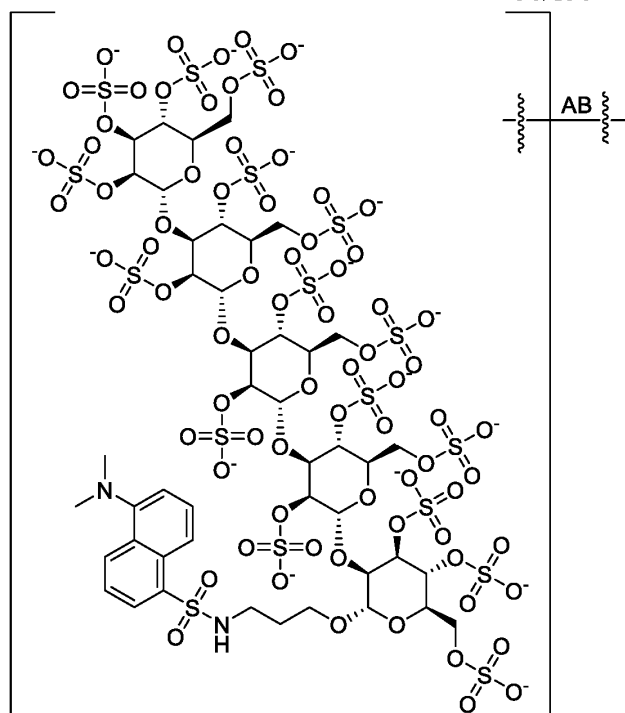


FIG. 1KK

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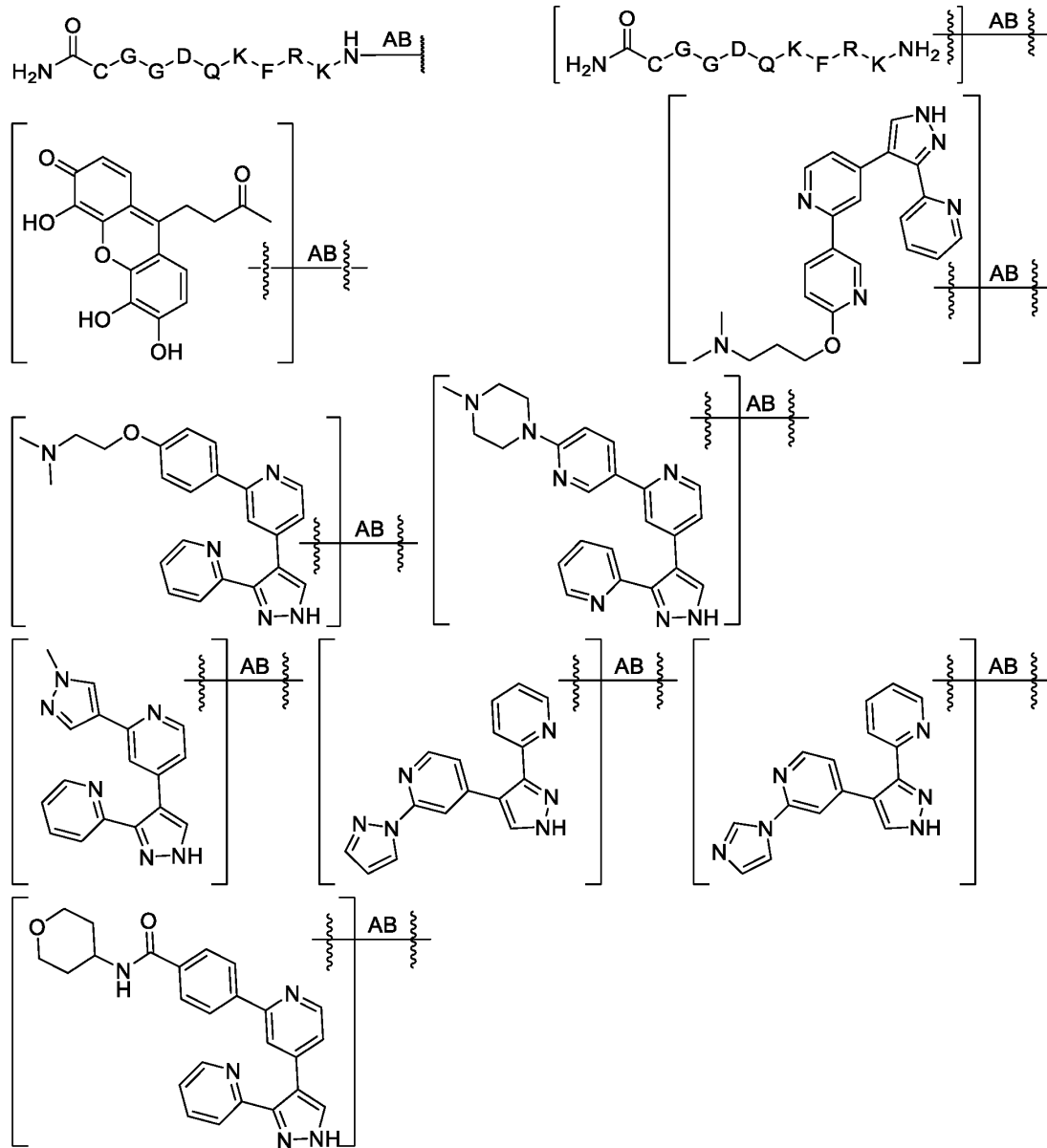


FIG. 1LL

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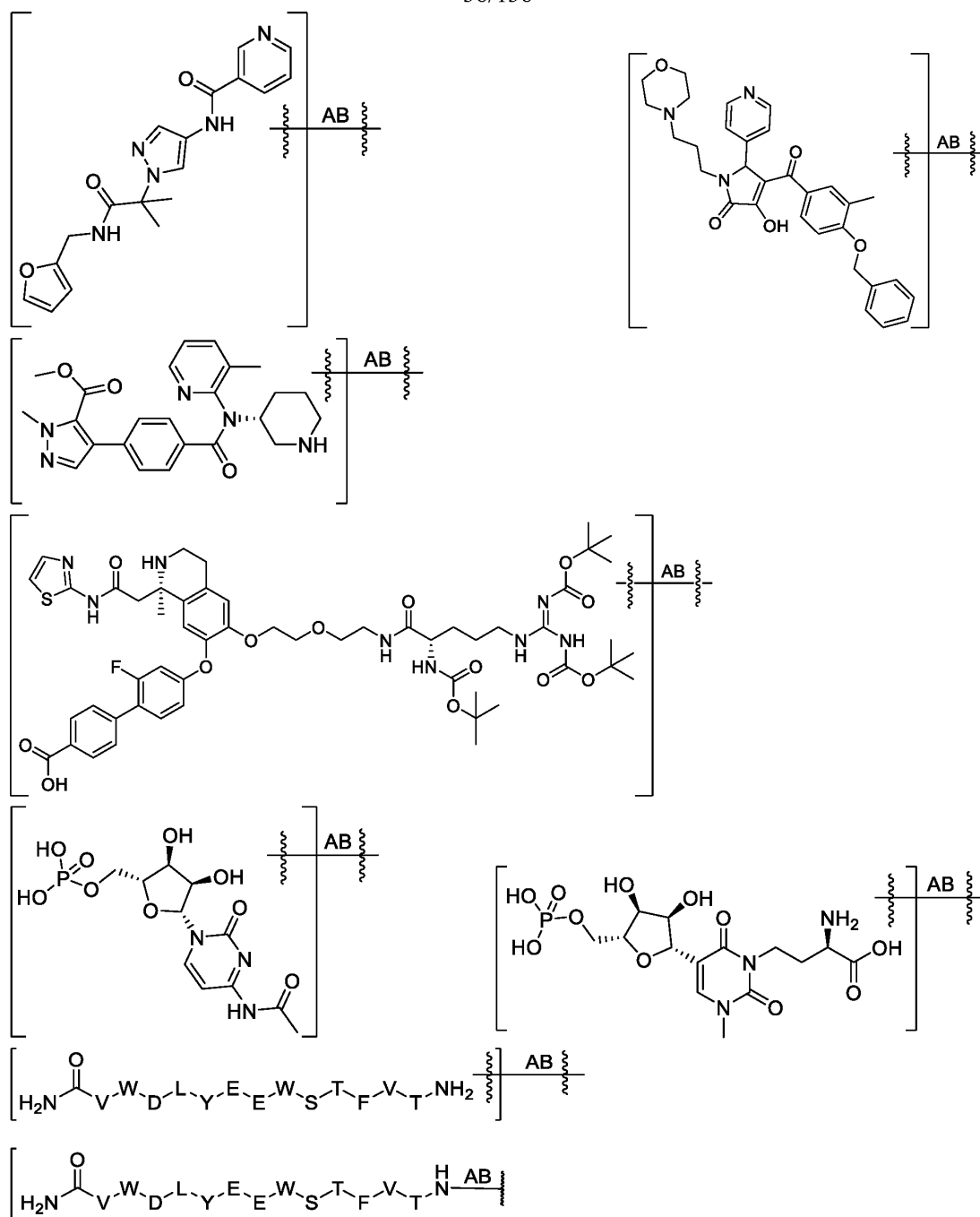


FIG. 1MM

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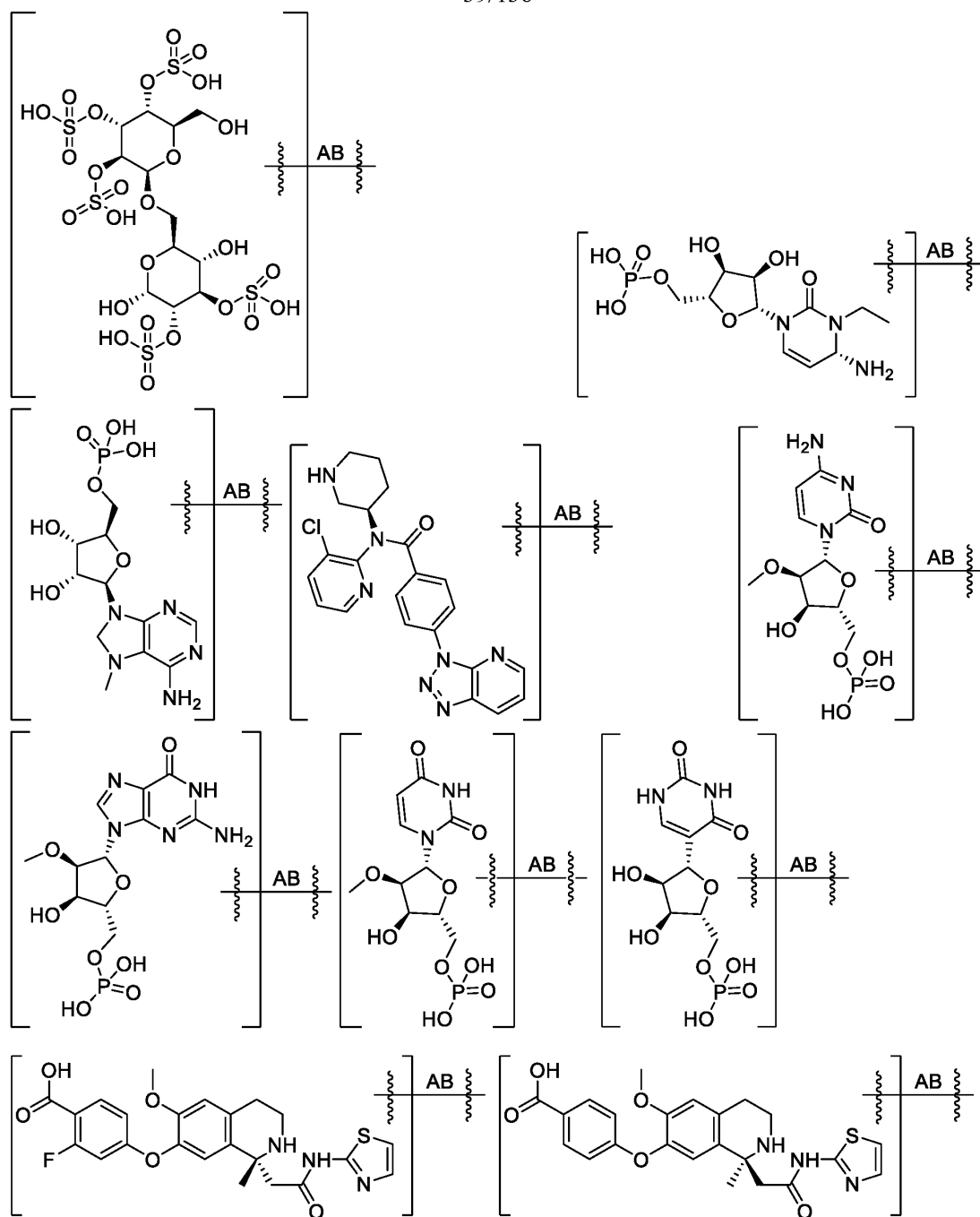


FIG. 1NN

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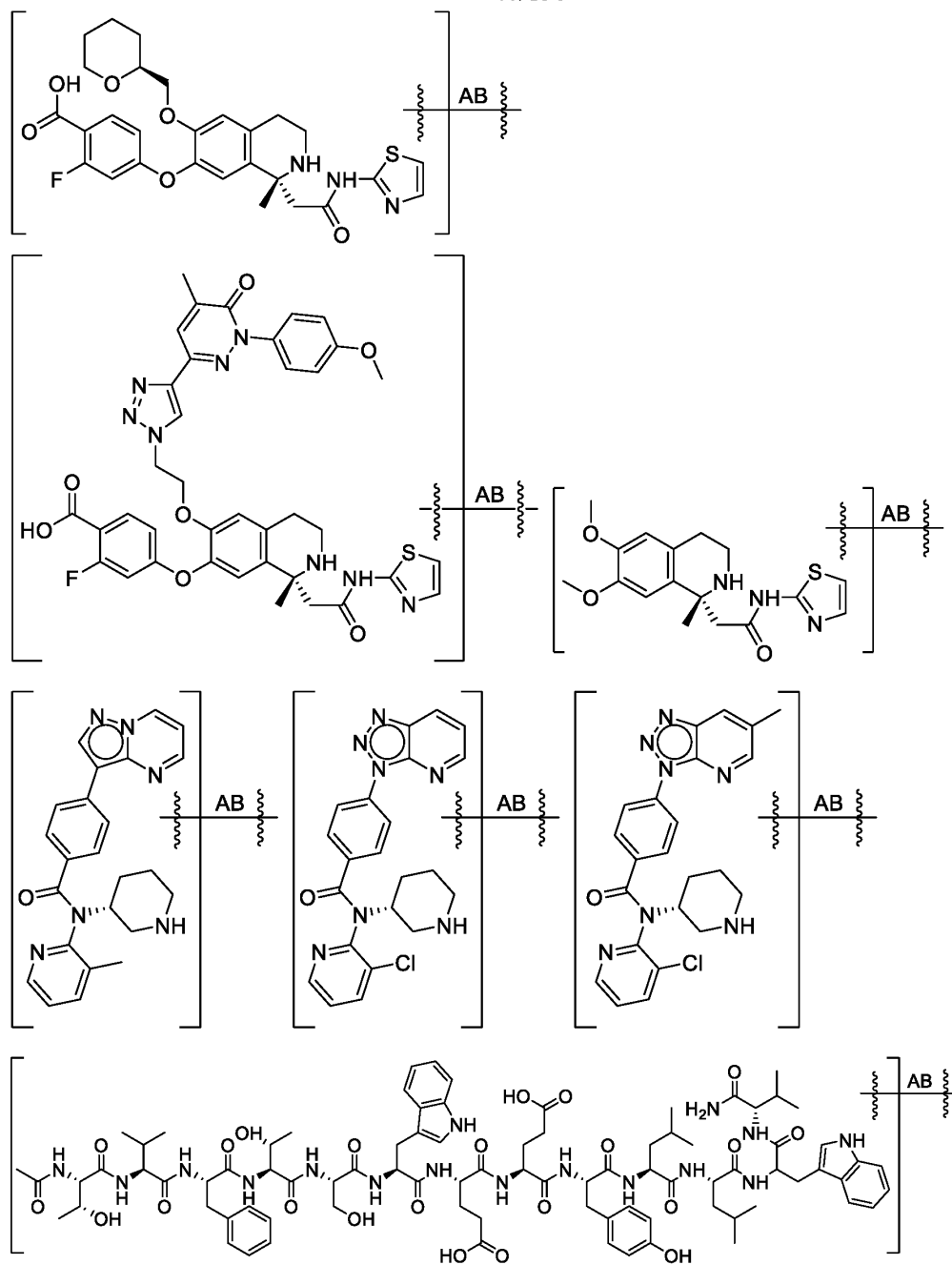


FIG. 100

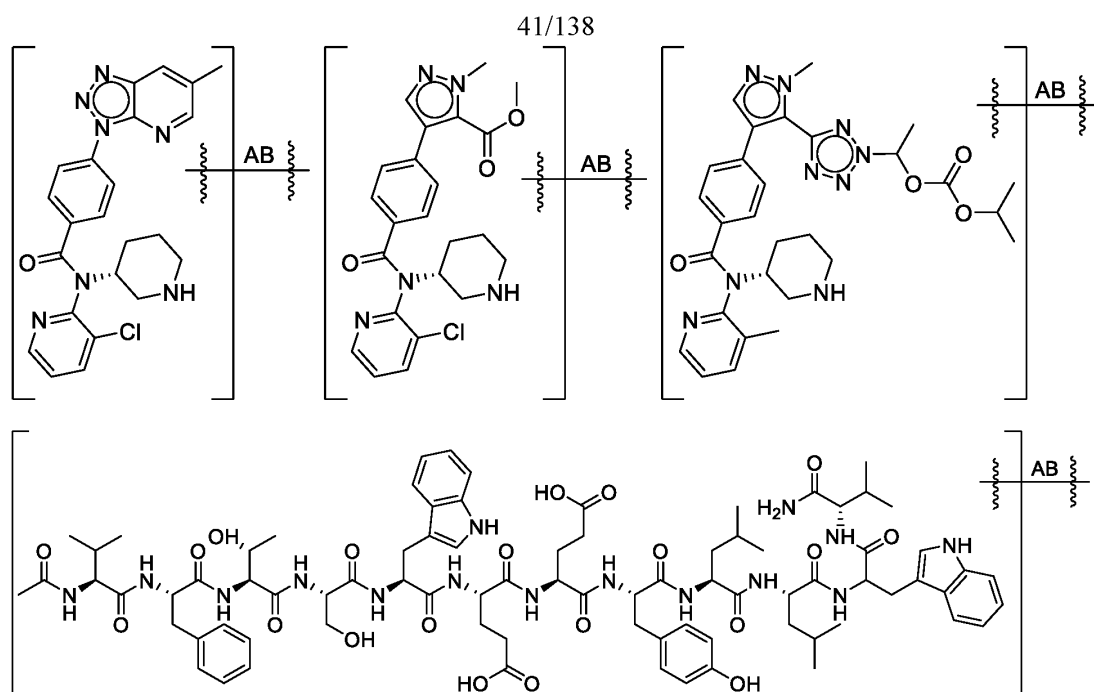


FIG. 1PP

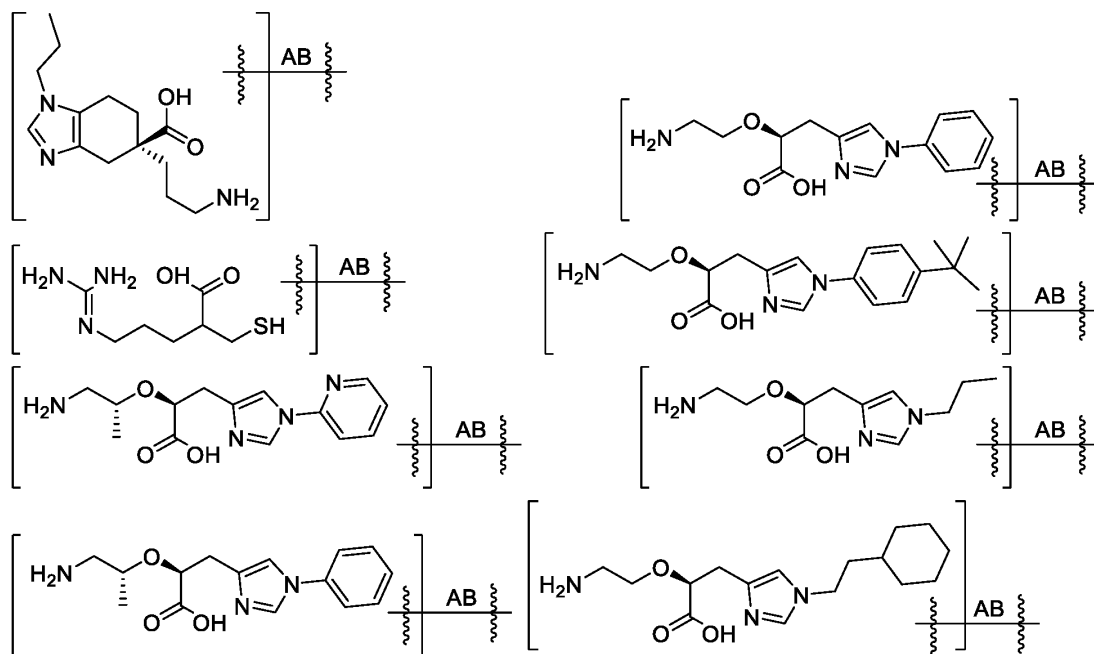


FIG. 1QQ

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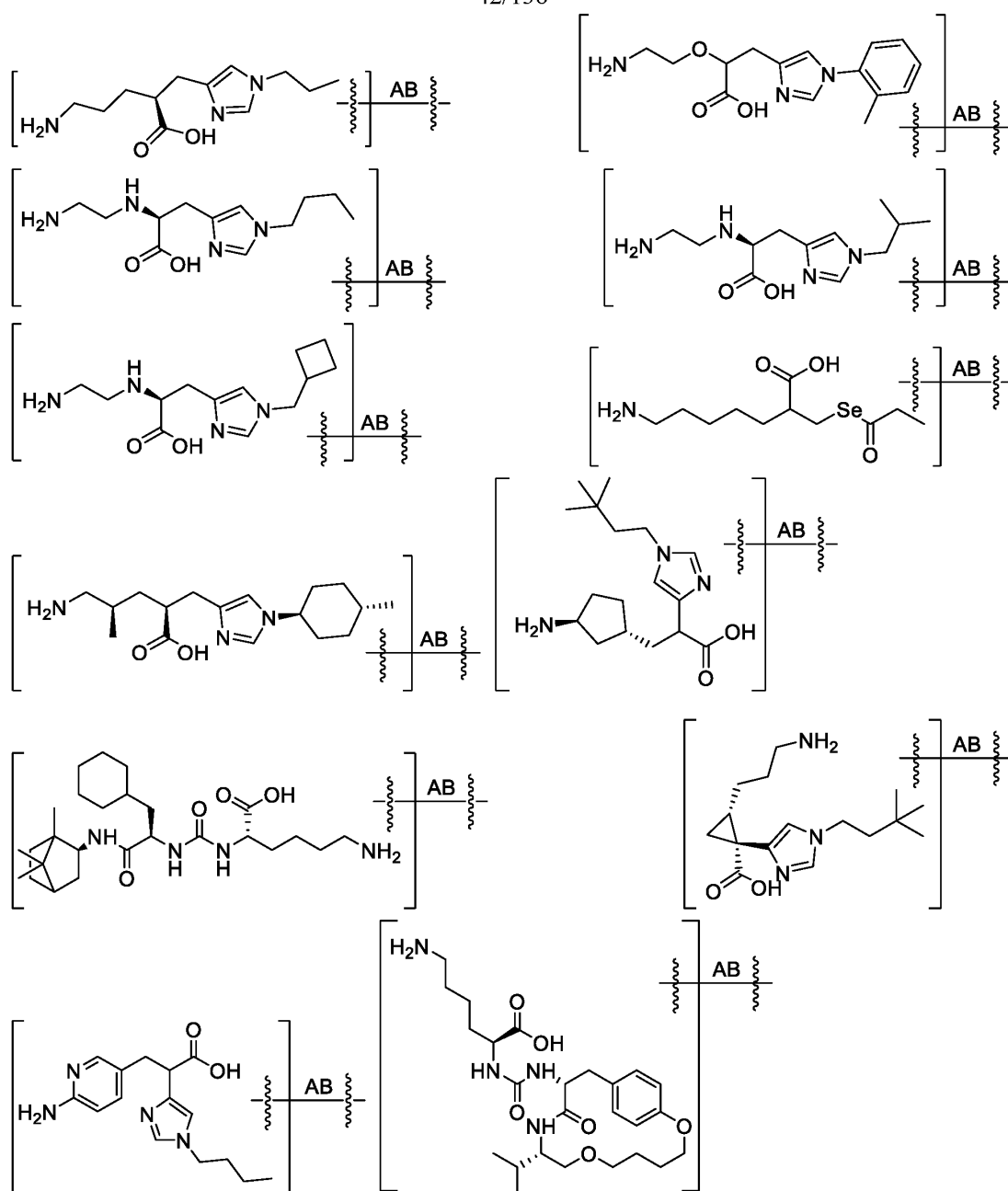


FIG. 1RR

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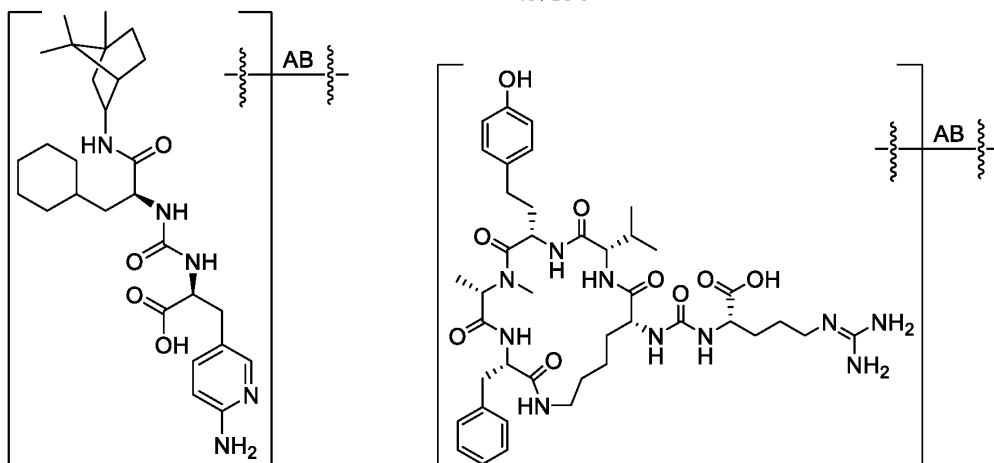


FIG. 1SS

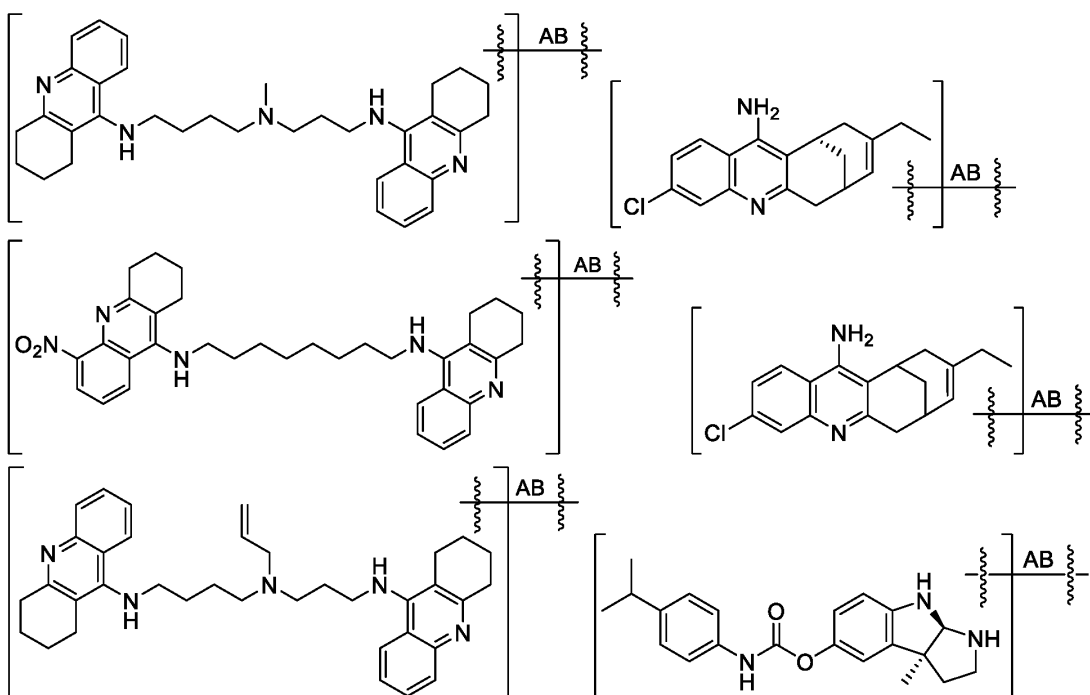


FIG. 1TT

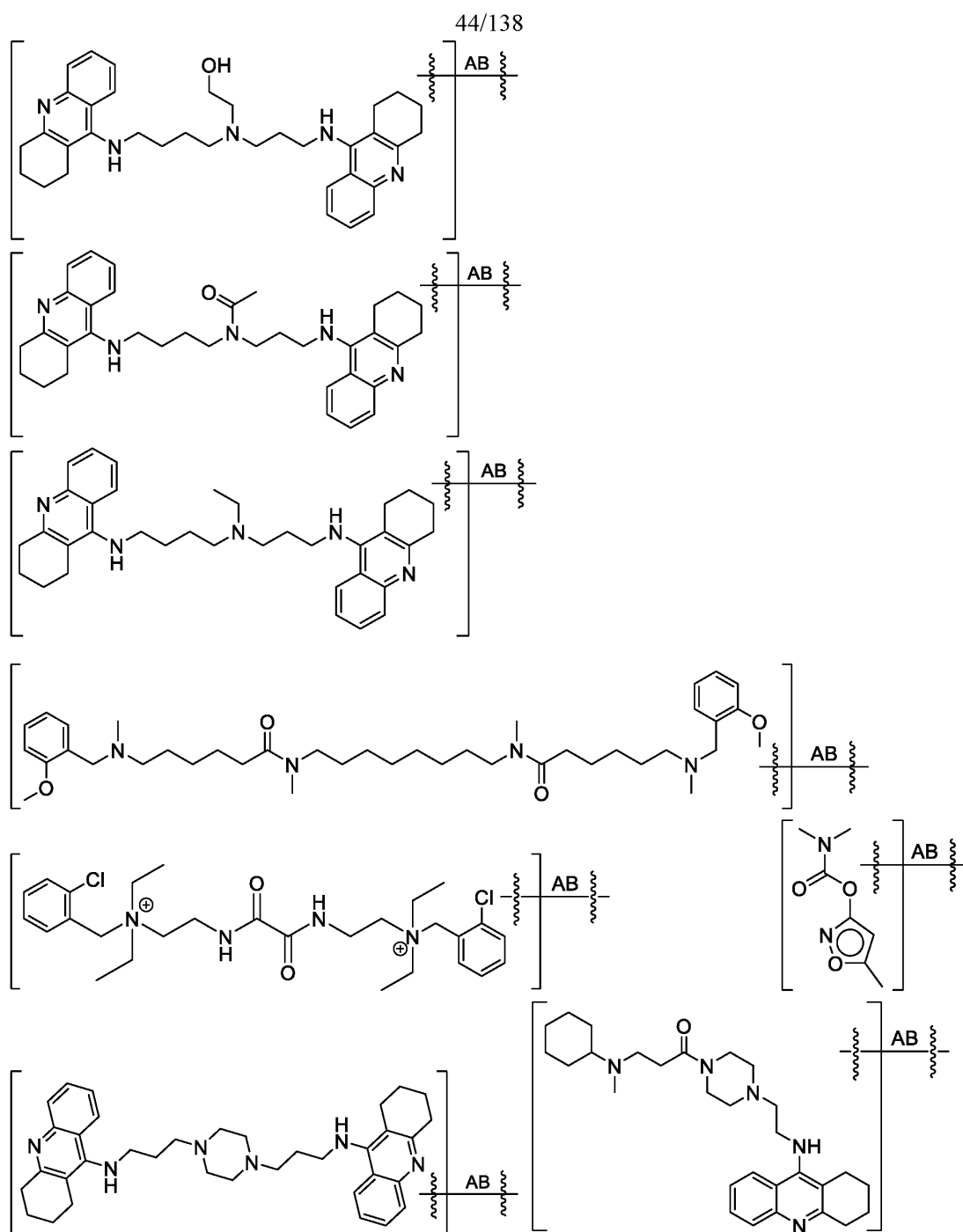


FIG. 1UU

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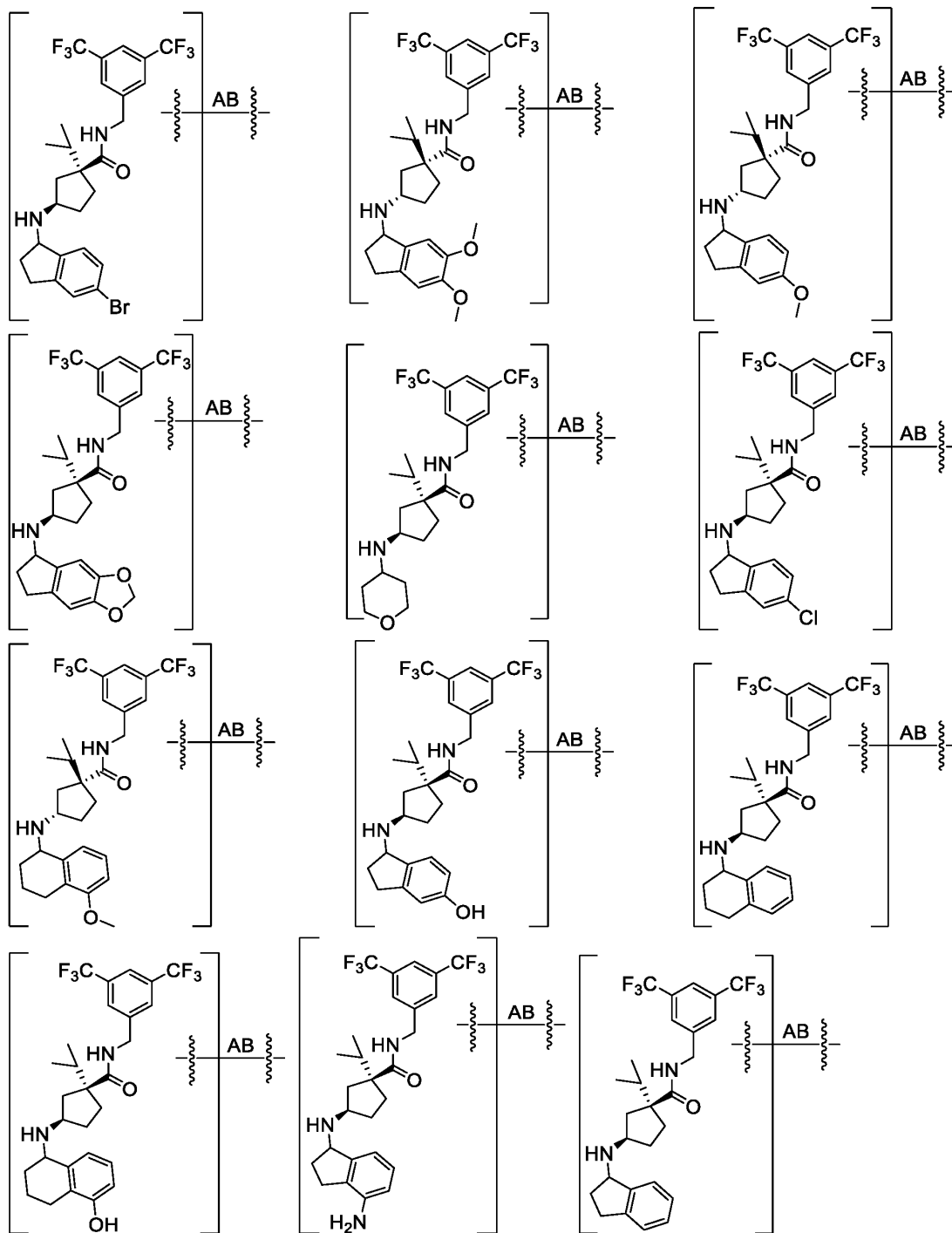


FIG. 1VV

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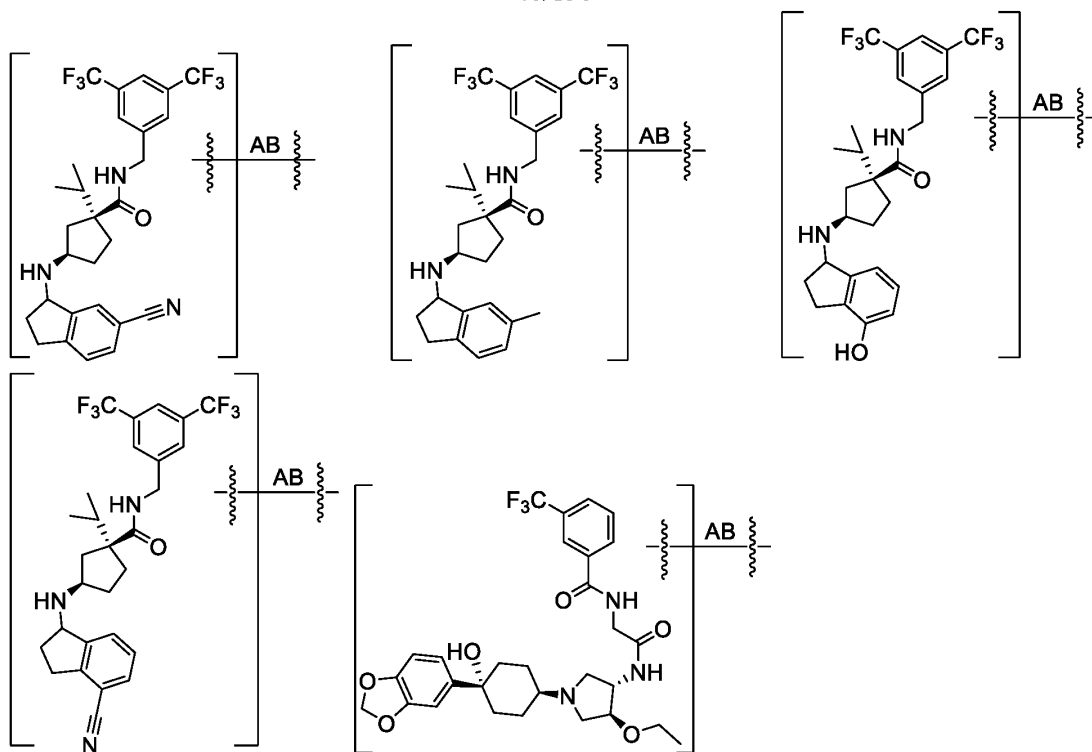


FIG. 1WW

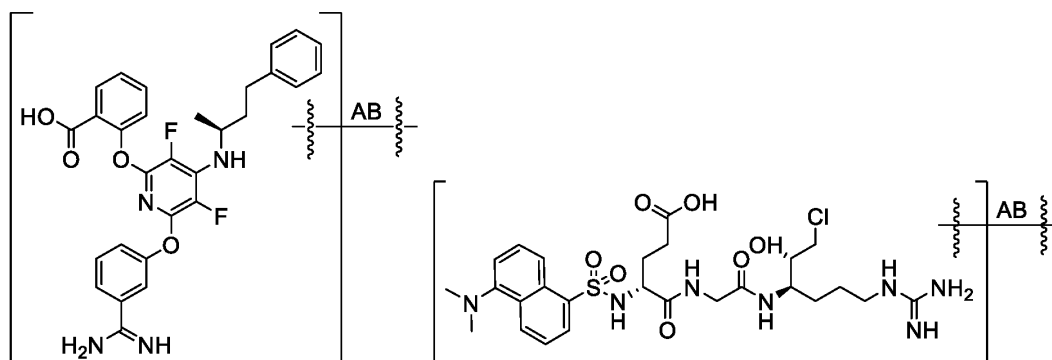


FIG. 1XX

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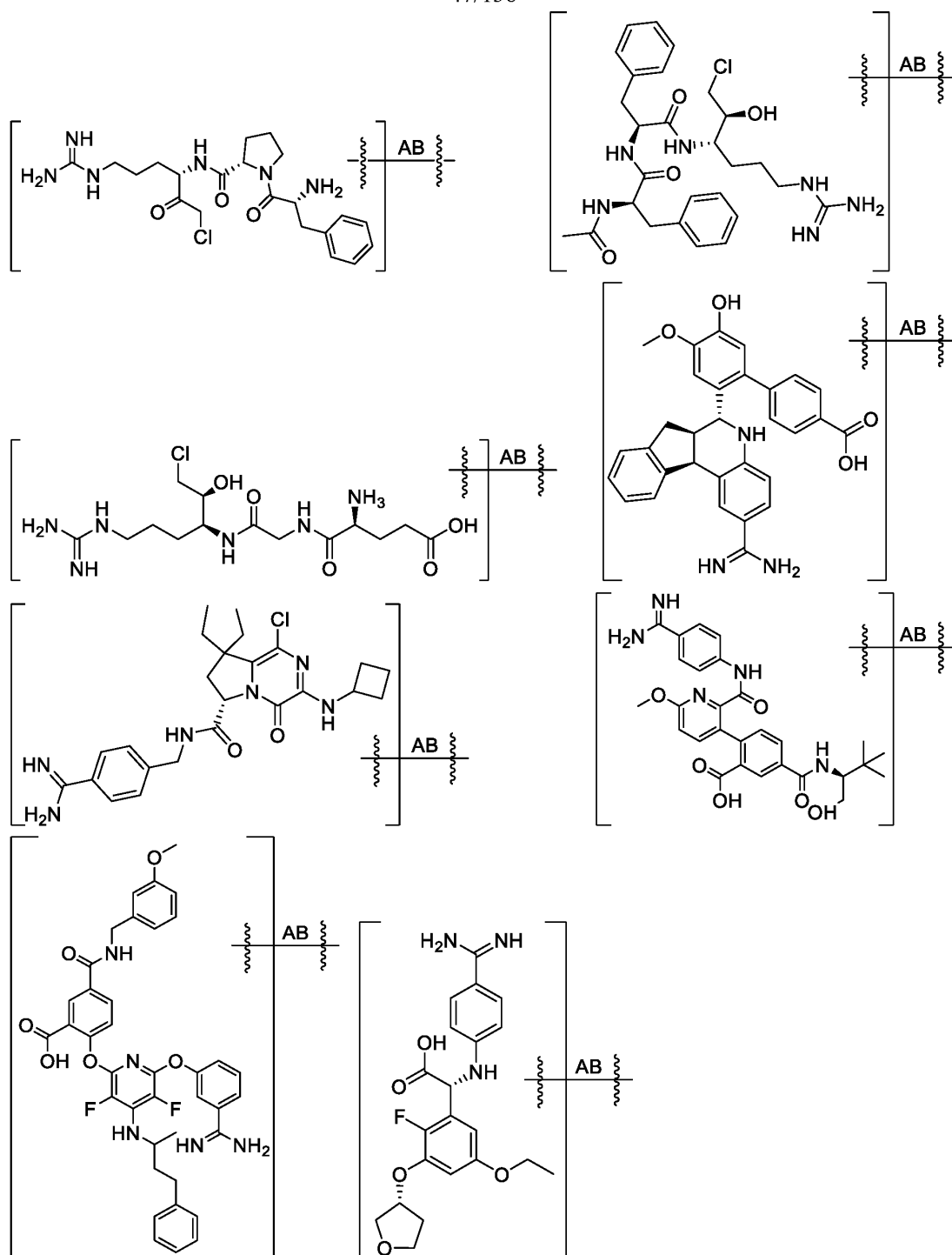


FIG. 1YY

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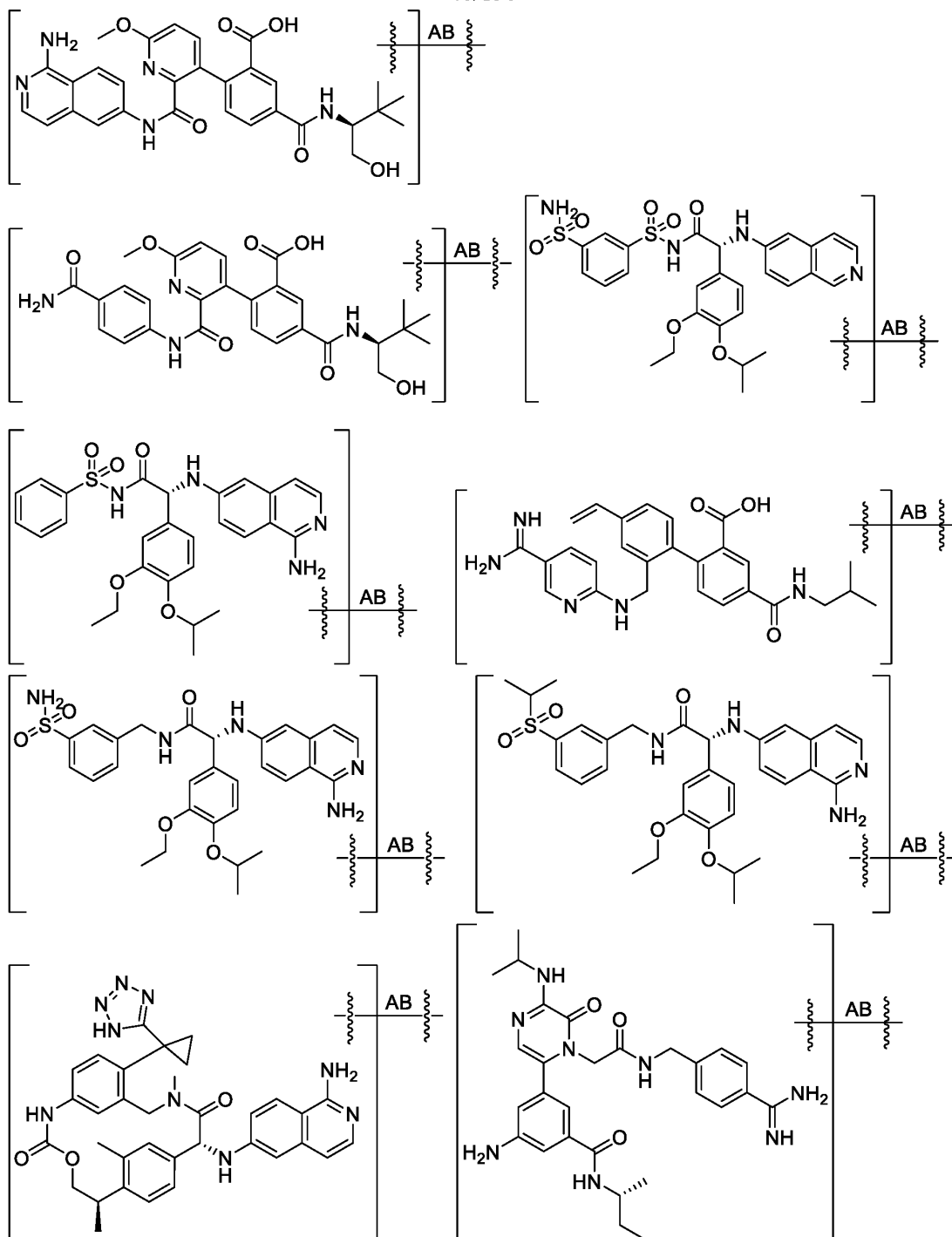


FIG. 1ZZ

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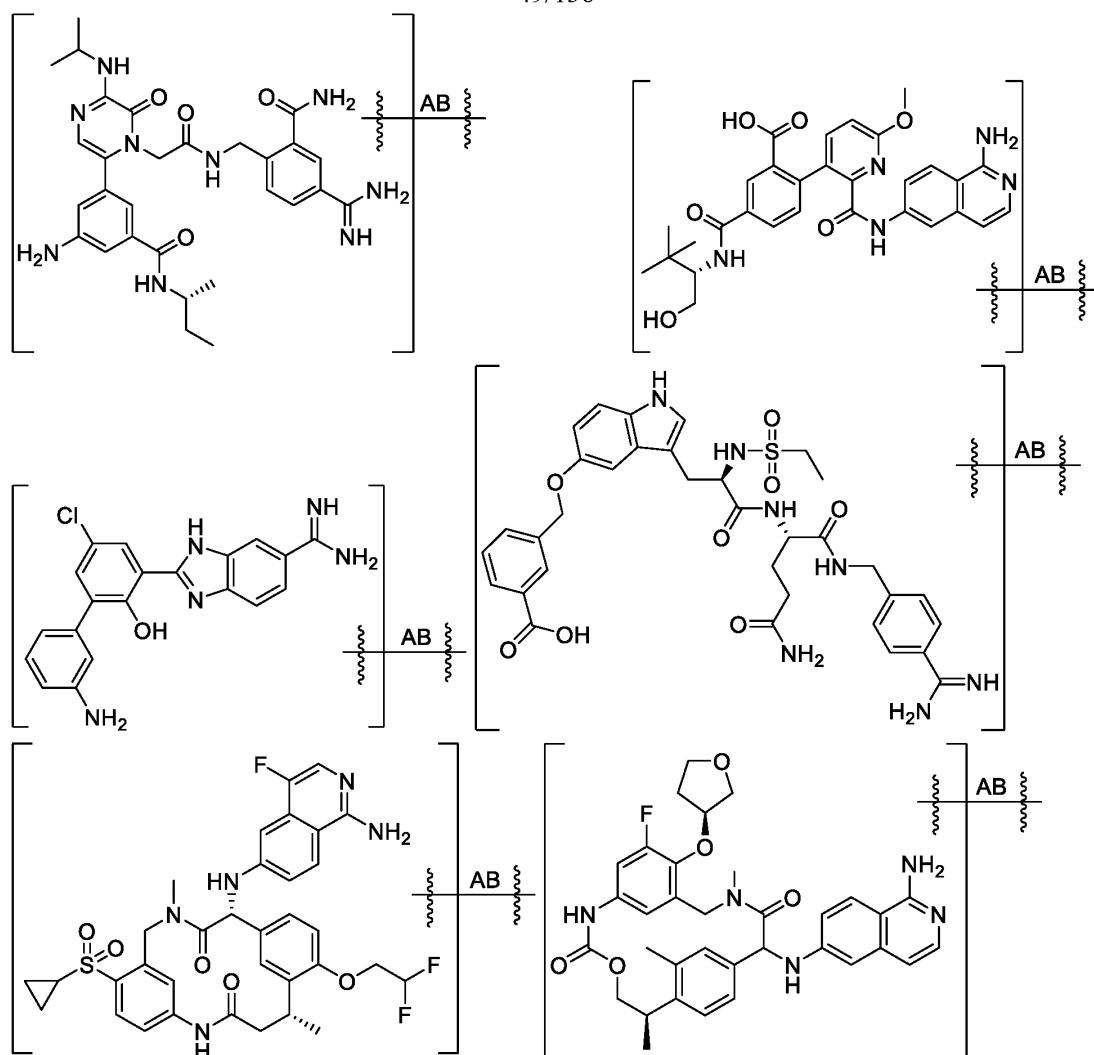


FIG. 1AAA

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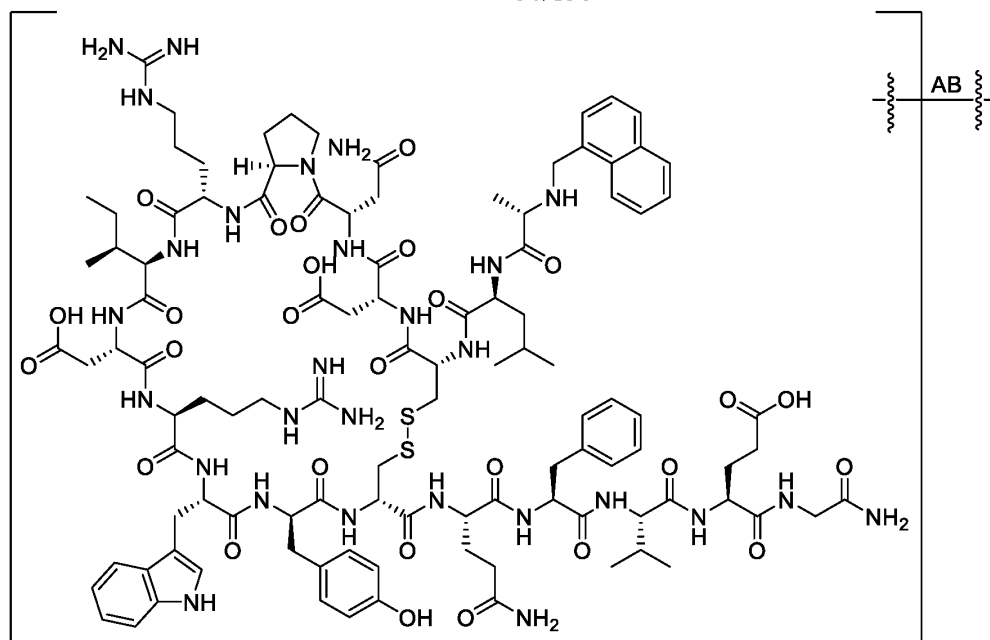


FIG. 1BBB

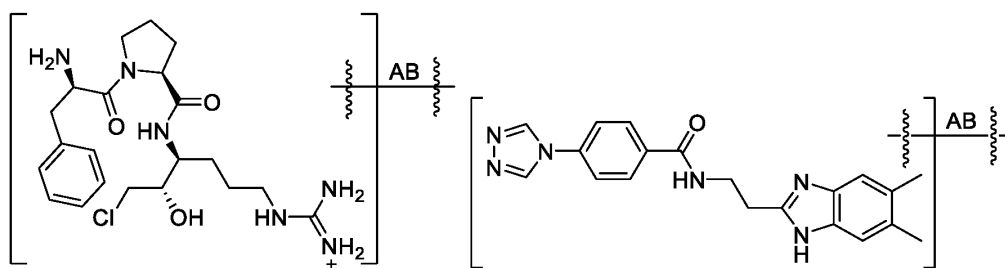


FIG. 1CCC

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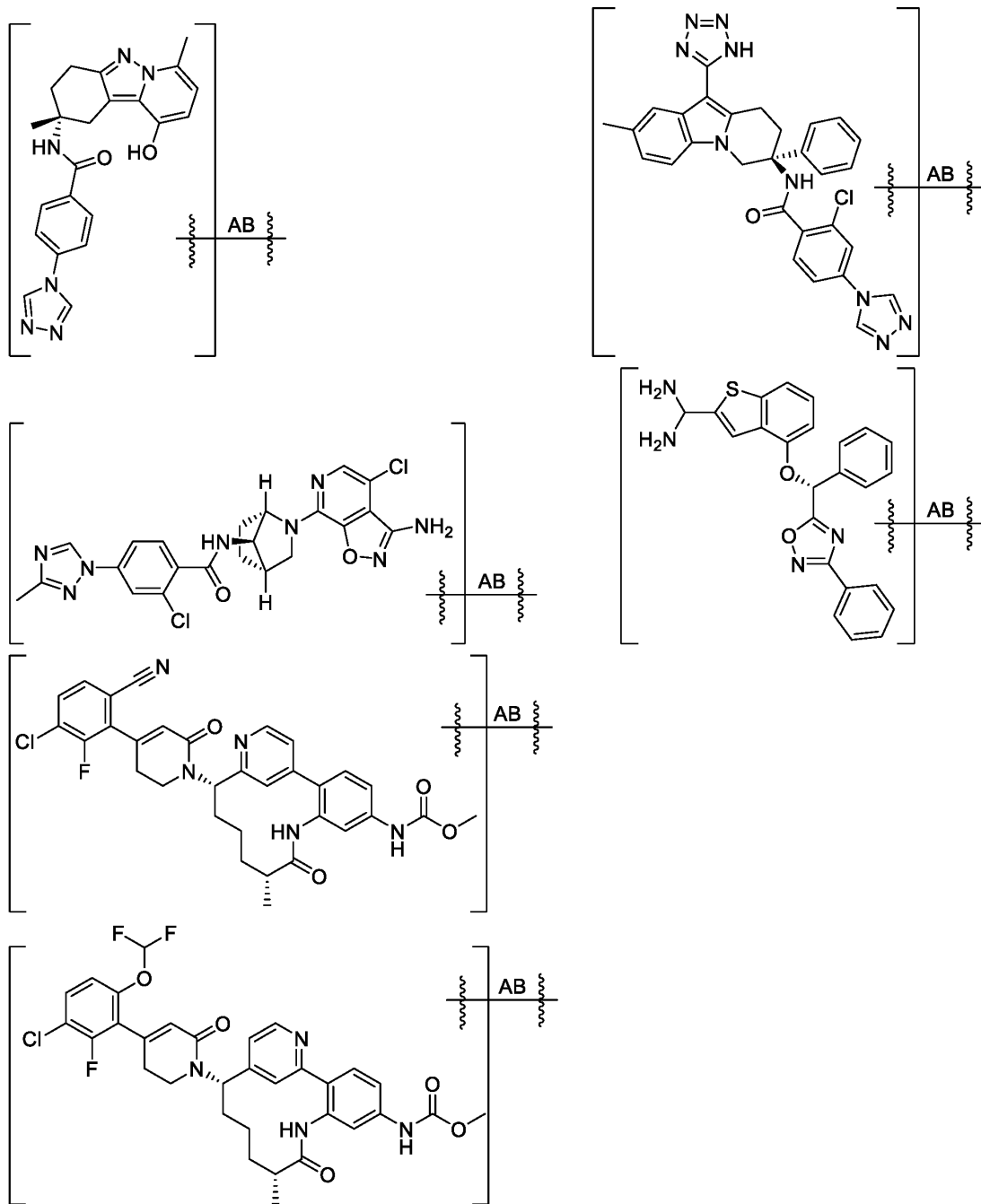


FIG. 1DDD

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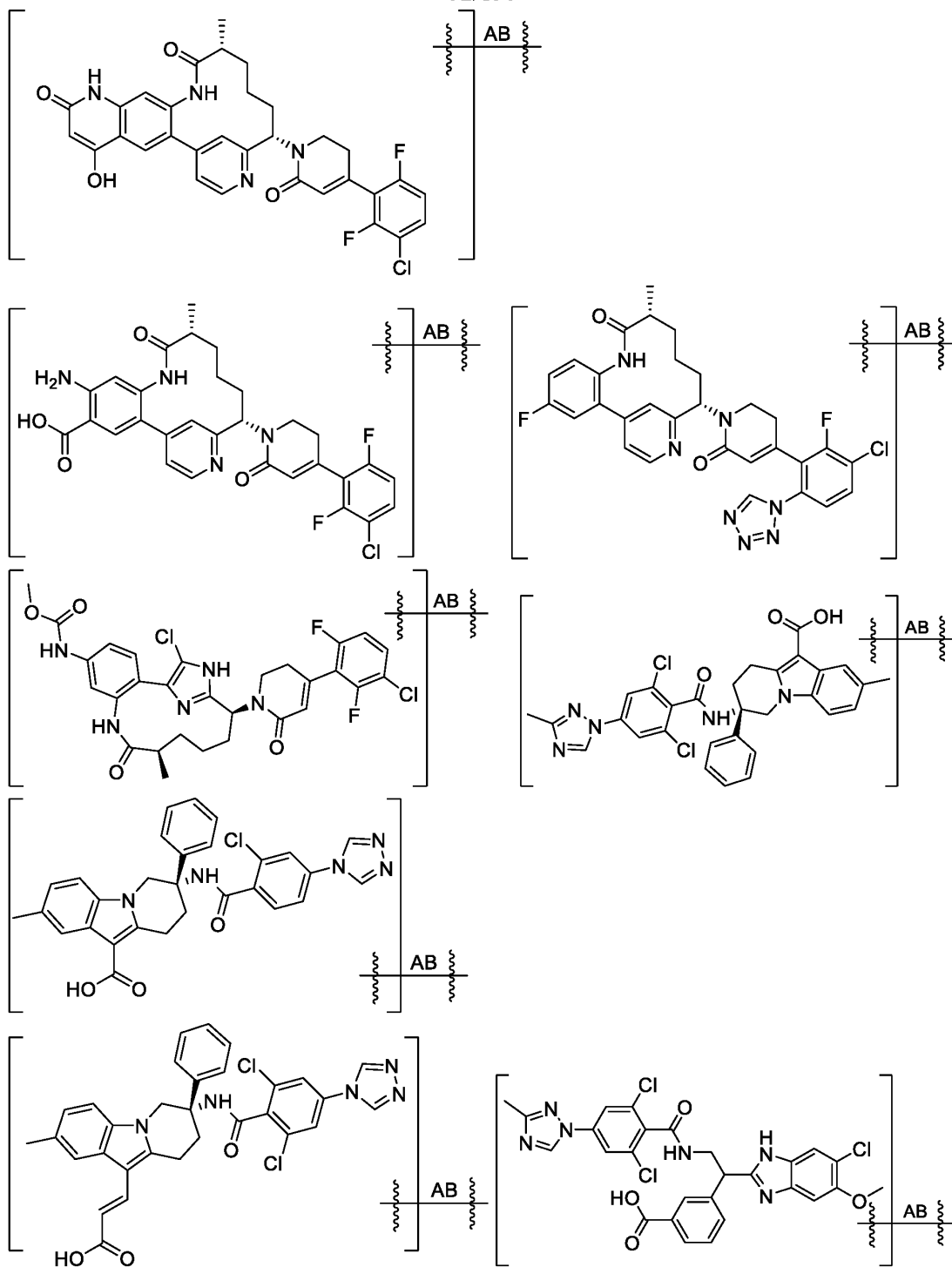


FIG. 1EEE

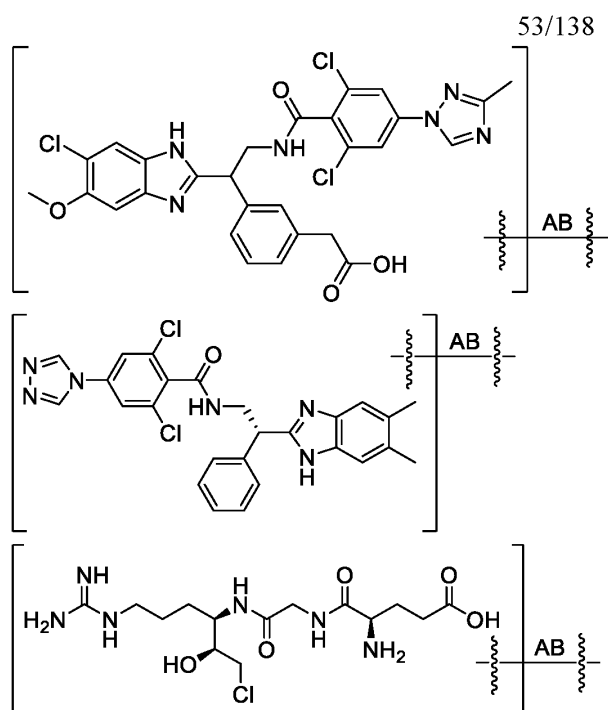


FIG. 1FFF

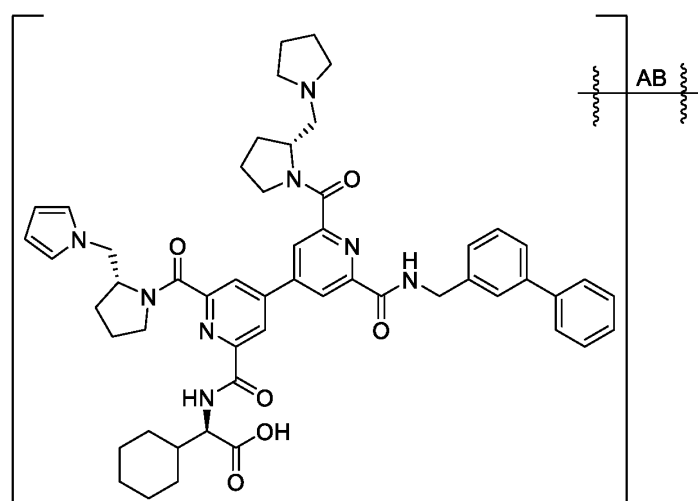


FIG. 1GGG

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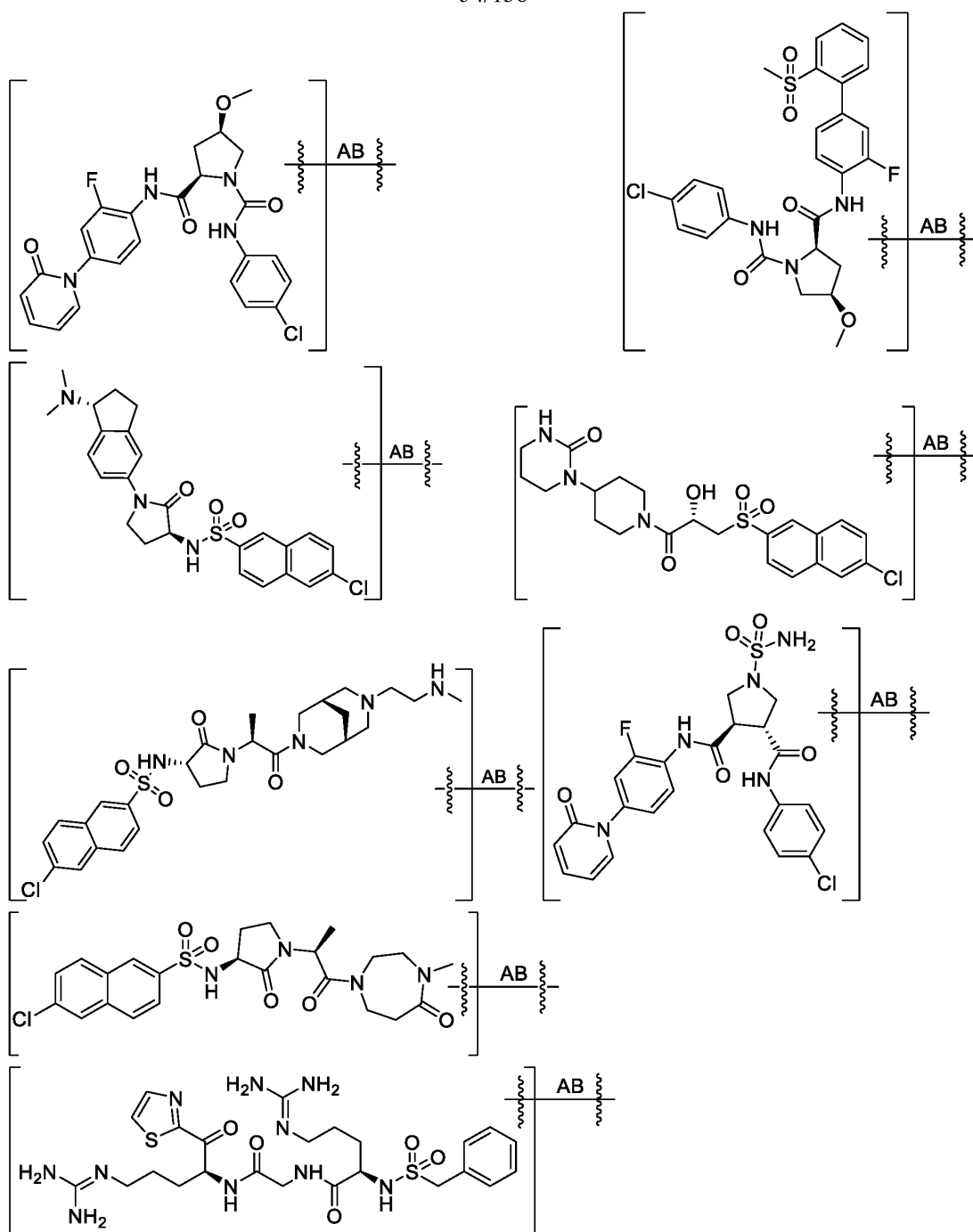


FIG. 1HHH

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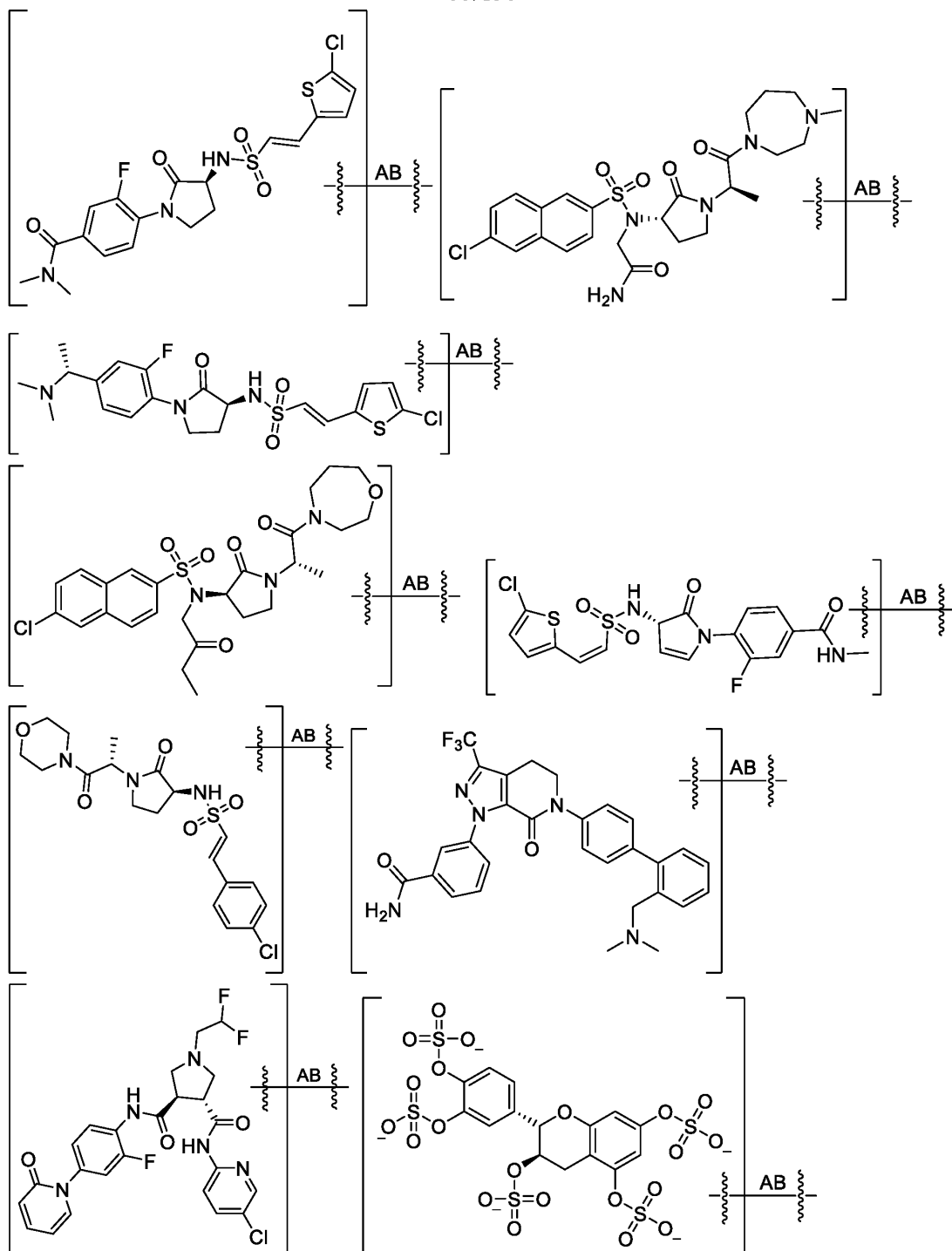


FIG. 1III

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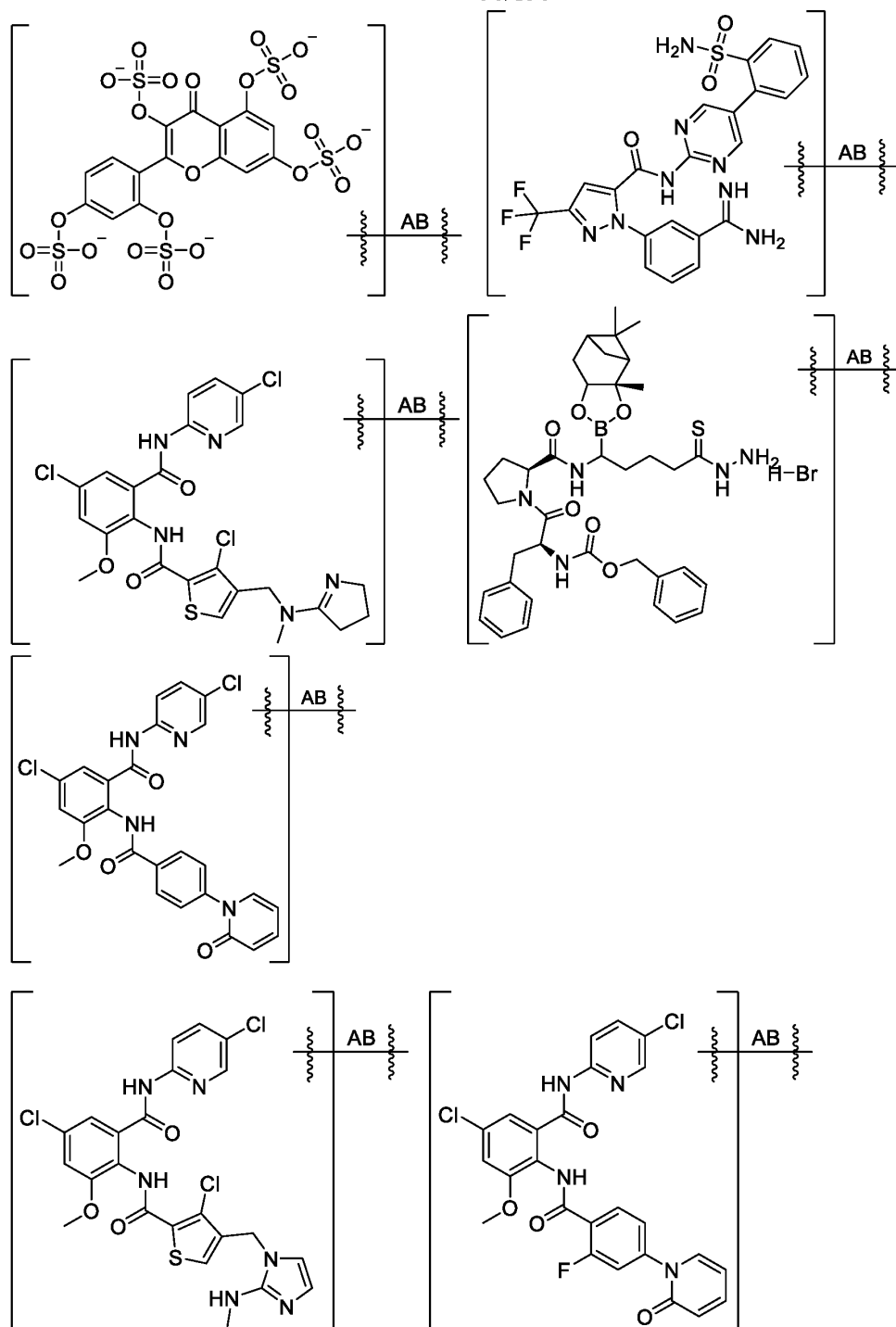


FIG. 1JJ

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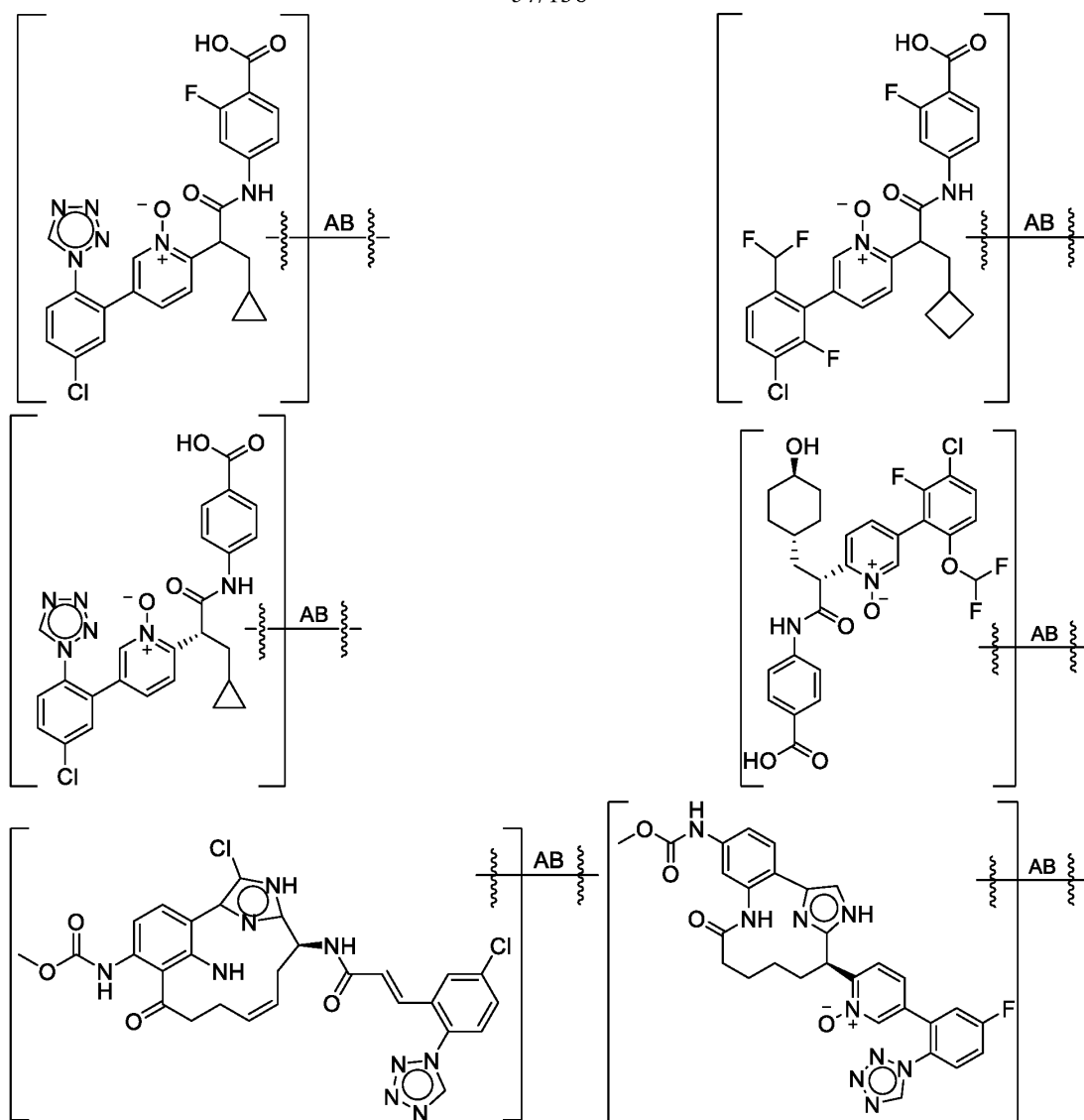


FIG. 1KKK

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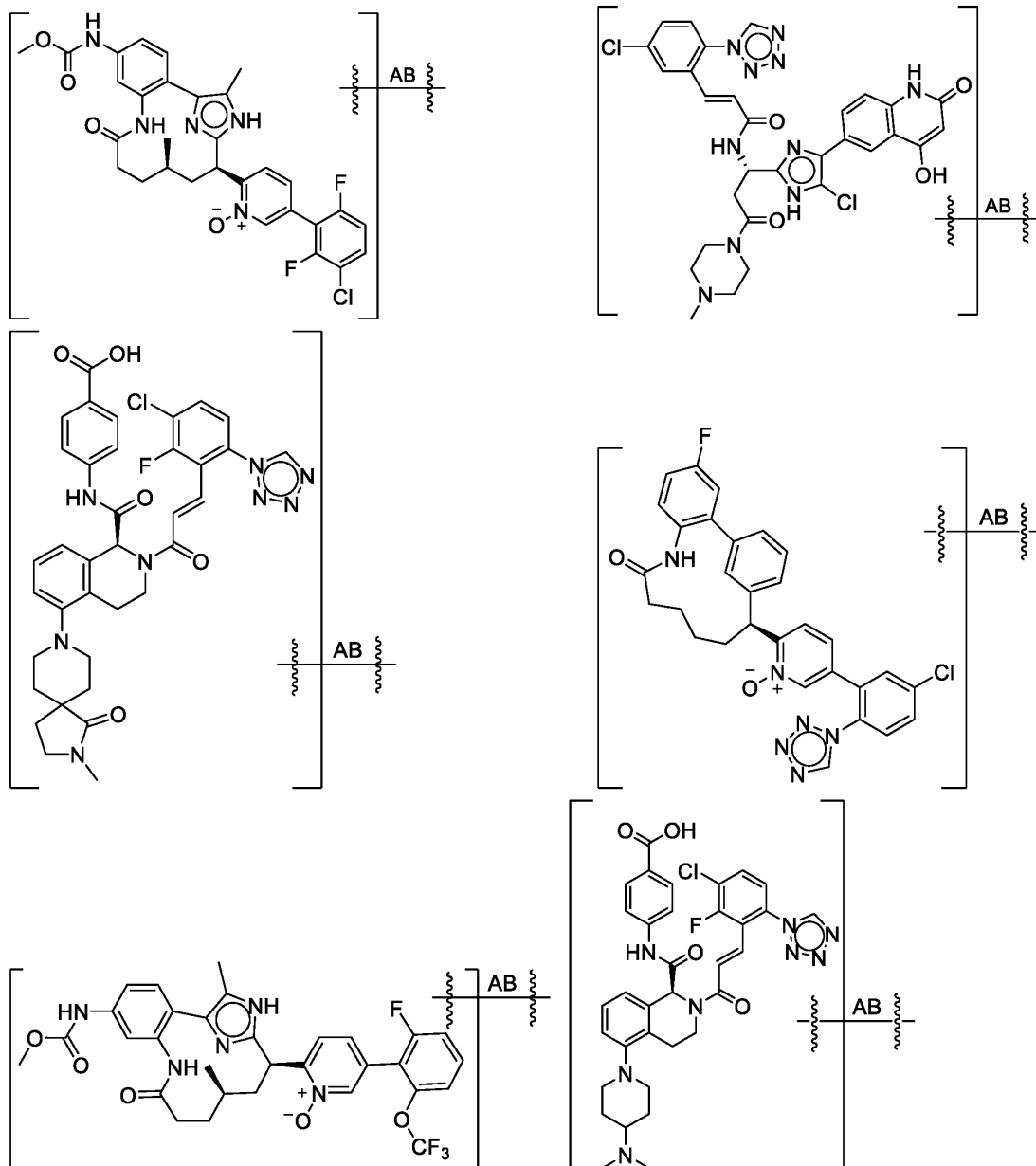


FIG. 1LLL

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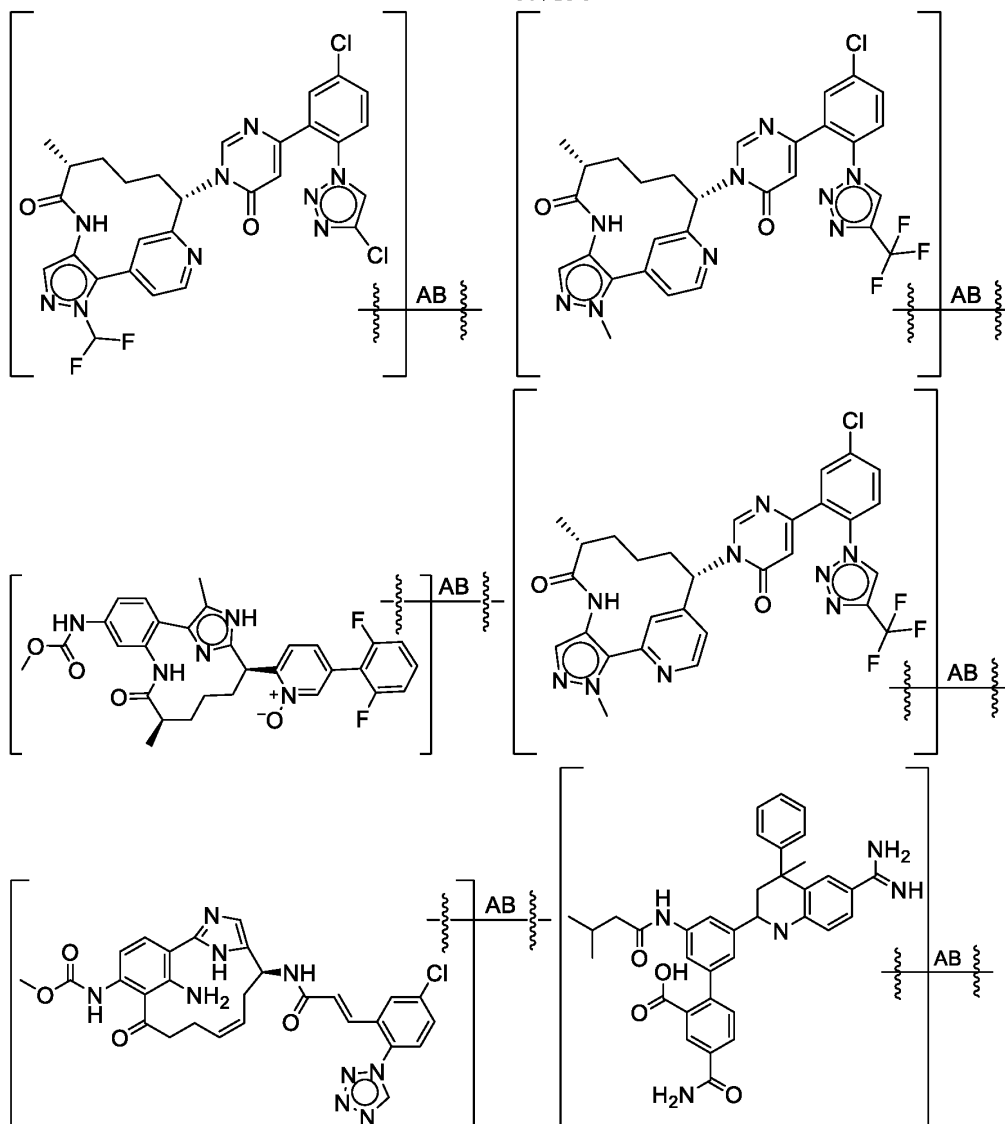


FIG. 1MMM

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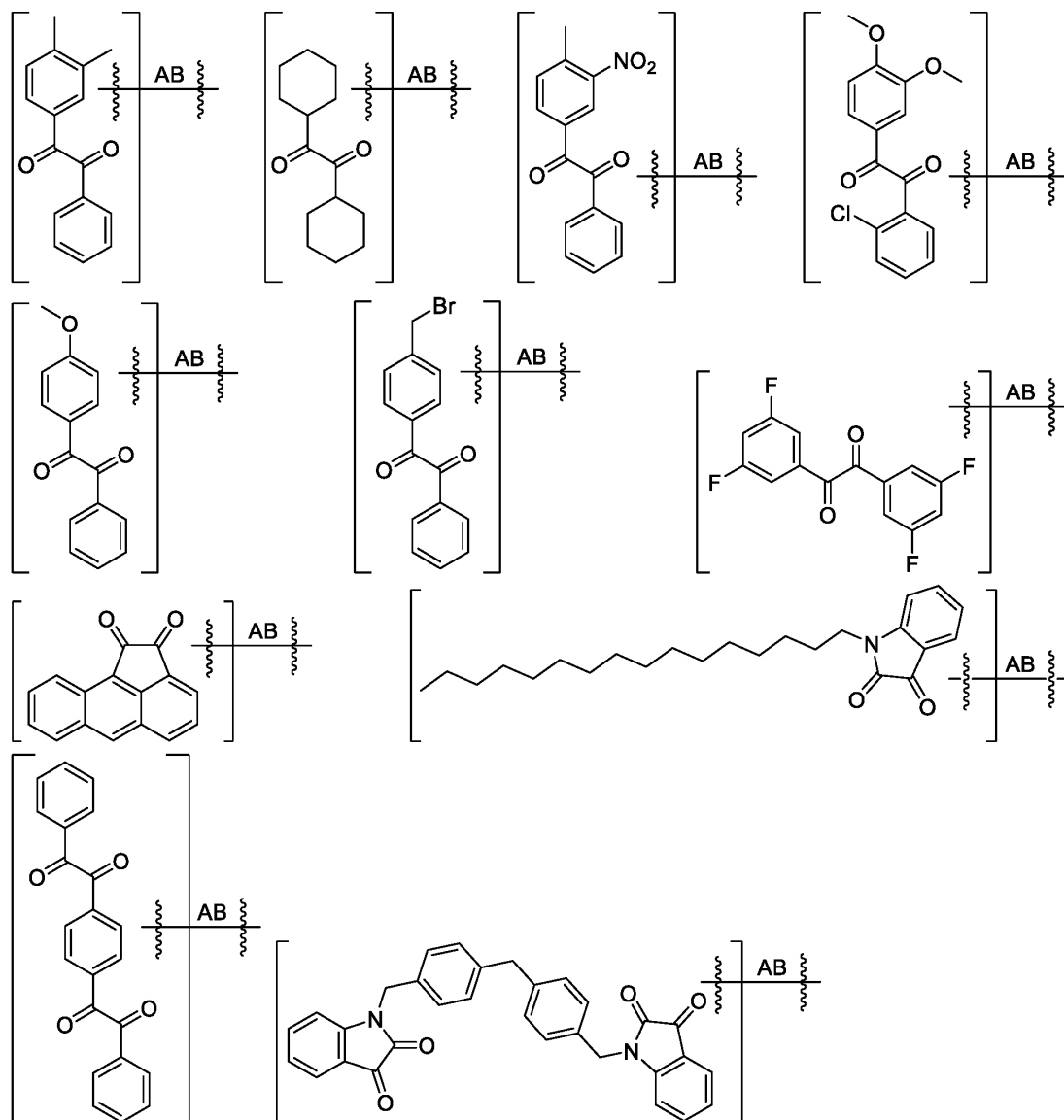


FIG. 1NNN

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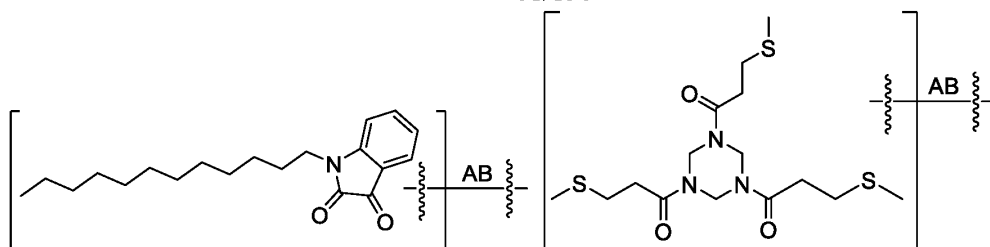


FIG. 1000

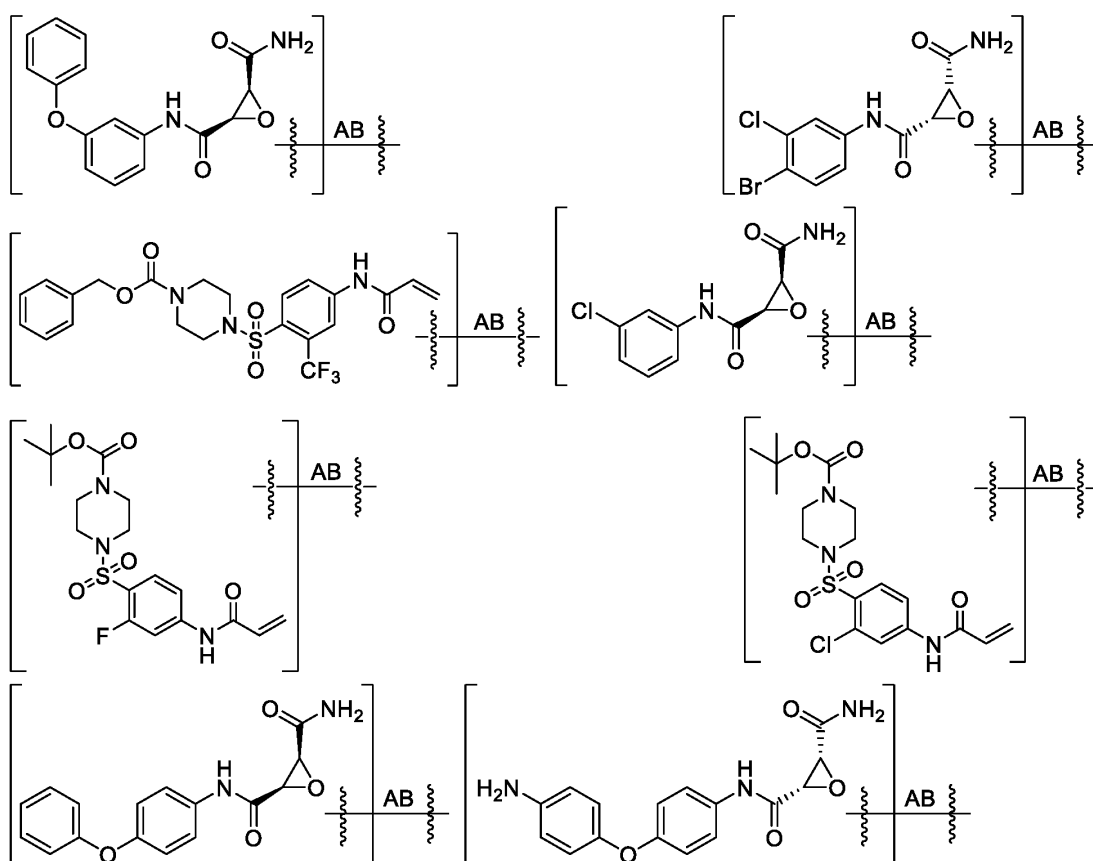


FIG. 1PPP

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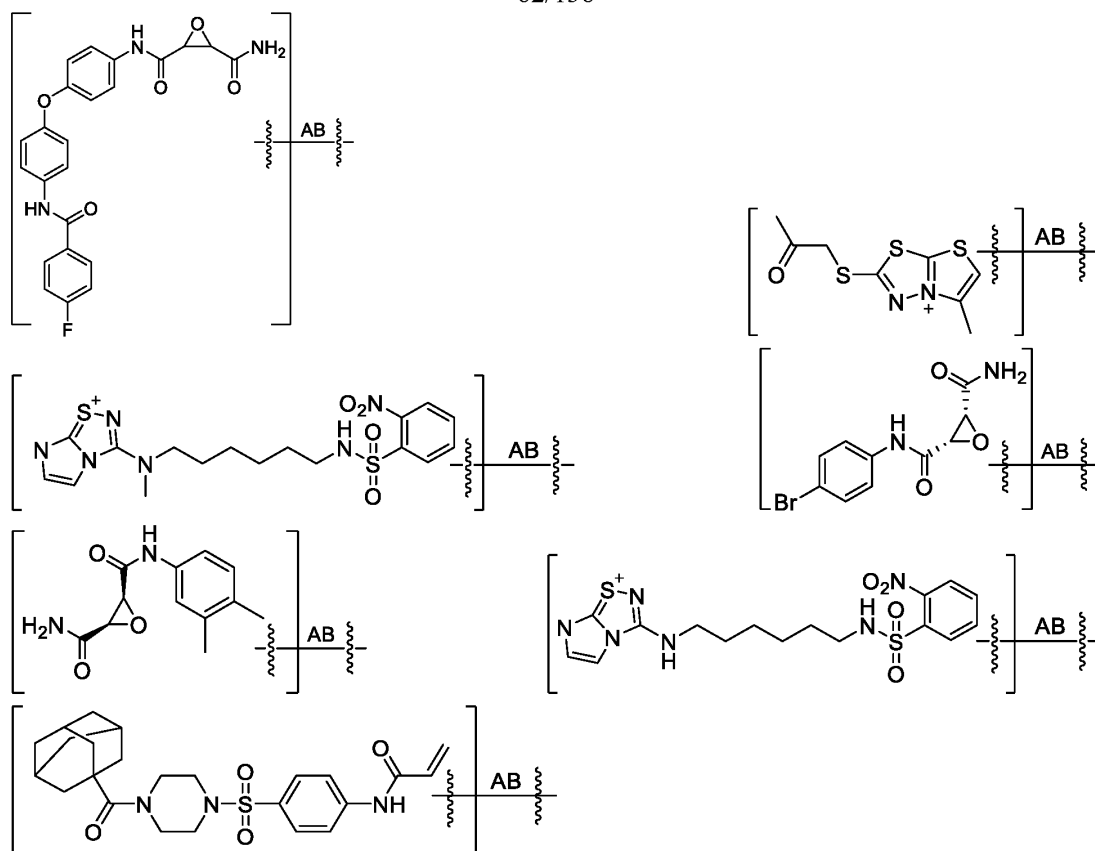


FIG. 1QQQ

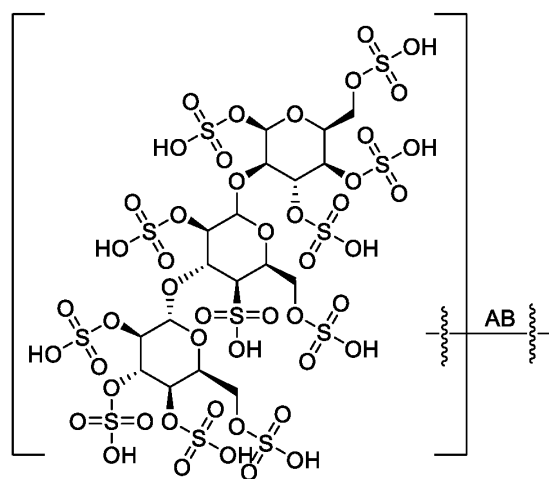


FIG. 1RRR

The figure displays three chemical structures of sulfonated poly(arylene ether)s, labeled (a), (b), and (c), each enclosed in brackets with a subscript 'n' indicating the repeating unit.

(a) A linear poly(arylene ether)sulfonate. The repeating unit consists of a long alkyl chain (18 carbons) attached to a sulfonated poly(arylene ether) backbone. The backbone is composed of three 1,3,5-trisubstituted benzene rings linked by ether groups. The sulfonate groups are attached to the 4-position of the central benzene ring and the 2-positions of the two outer benzene rings.

(b) A cross-linked poly(arylene ether)sulfonate. The repeating unit consists of a sulfonated aromatic core (a 1,3,5-trisubstituted benzene ring) linked by ether groups to a sulfonated poly(arylene ether) backbone. The backbone is composed of three 1,3,5-trisubstituted benzene rings linked by ether groups. The sulfonate groups are attached to the 4-position of the central benzene ring and the 2-positions of the two outer benzene rings.

(c) A sulfonated poly(arylene ether)sulfonate. The repeating unit consists of a sulfonated aromatic core (a 1,3,5-trisubstituted benzene ring) linked by ether groups to a sulfonated poly(arylene ether) backbone. The backbone is composed of three 1,3,5-trisubstituted benzene rings linked by ether groups. The sulfonate groups are attached to the 4-position of the central benzene ring and the 2-positions of the two outer benzene rings.

FIG. 1SSS

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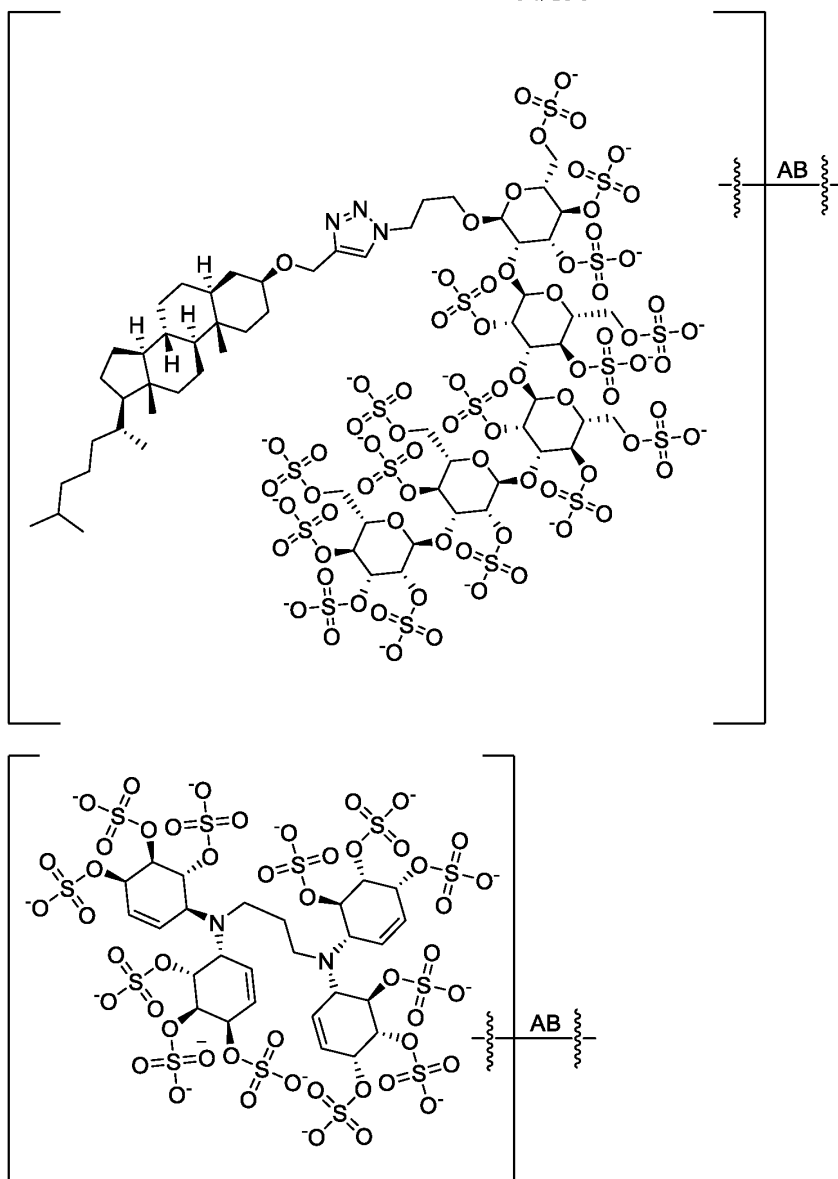


FIG. 1TTT

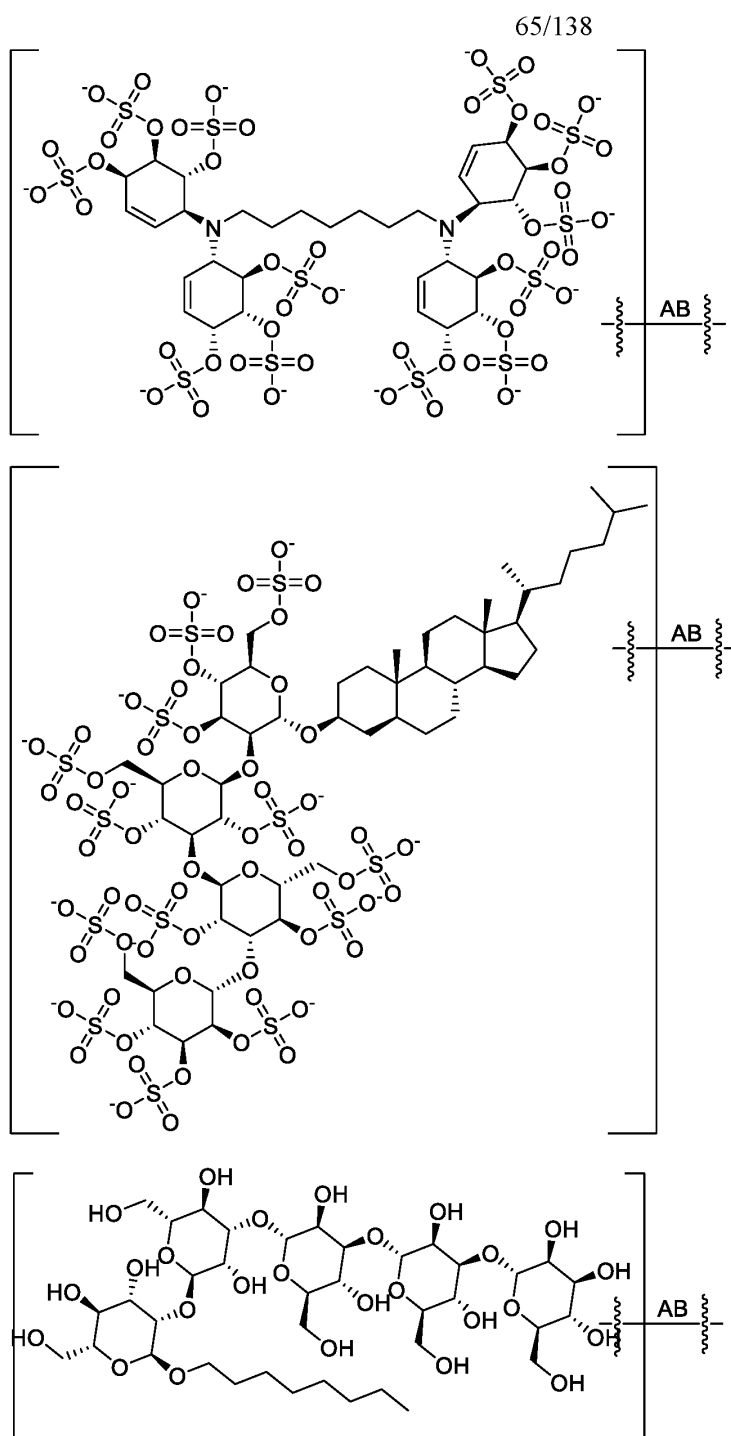


FIG. 1UUU

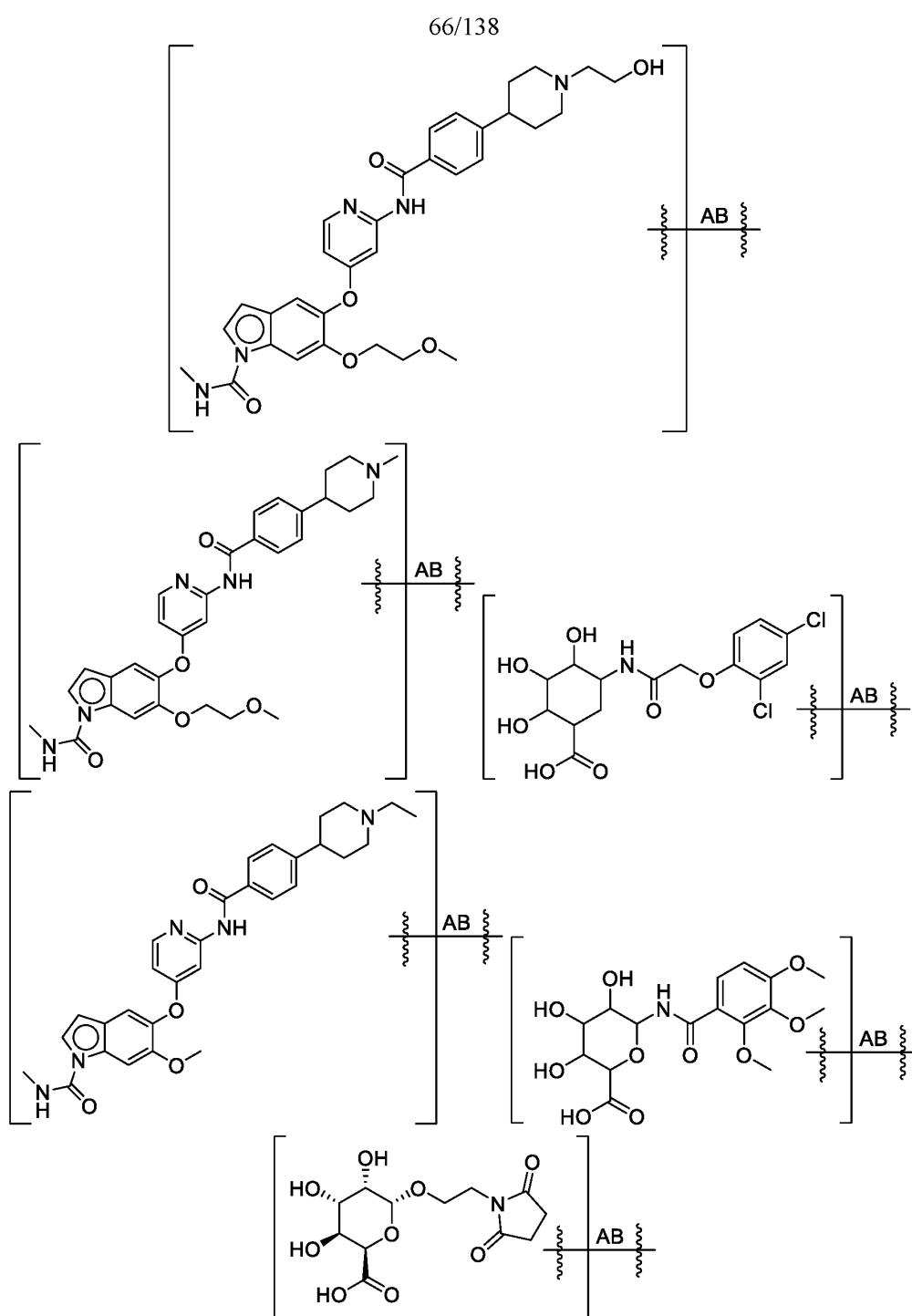


FIG. 1VVV

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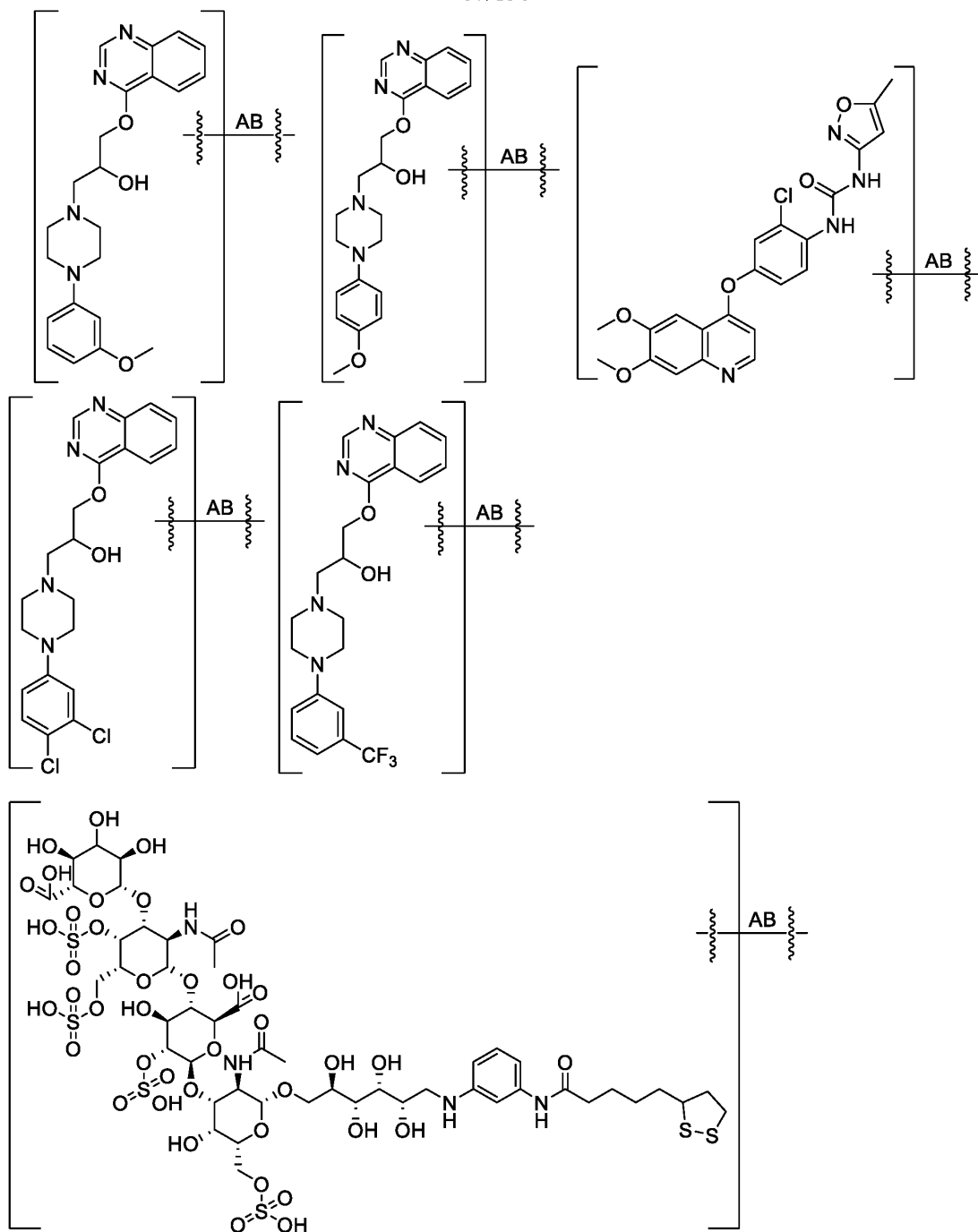


FIG. 1WWW

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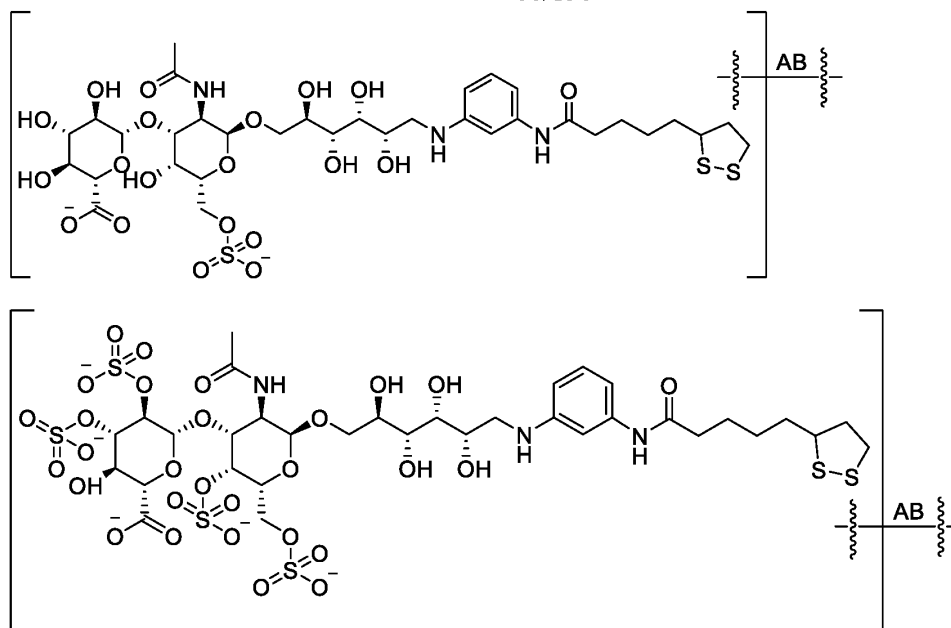


FIG. 1XXX

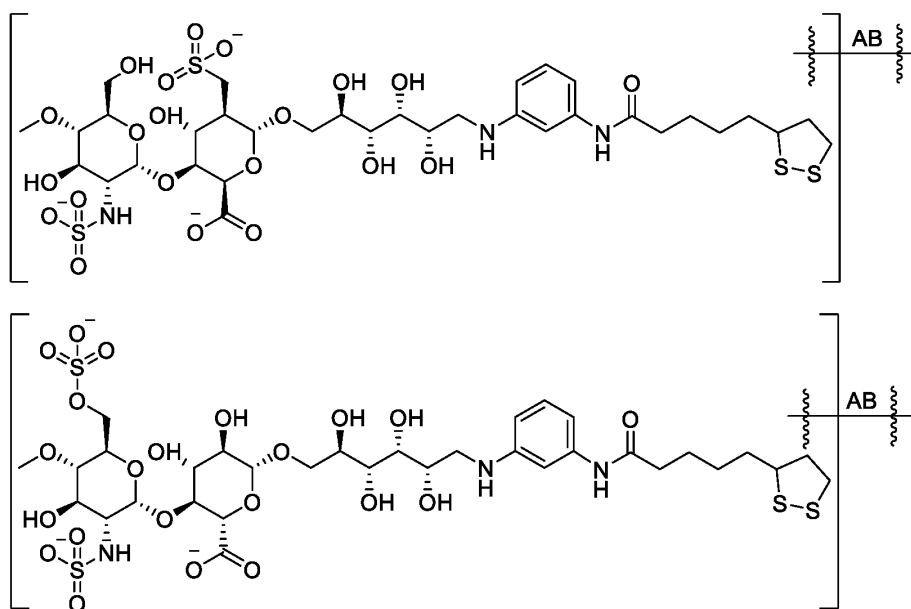


FIG. 1YYY

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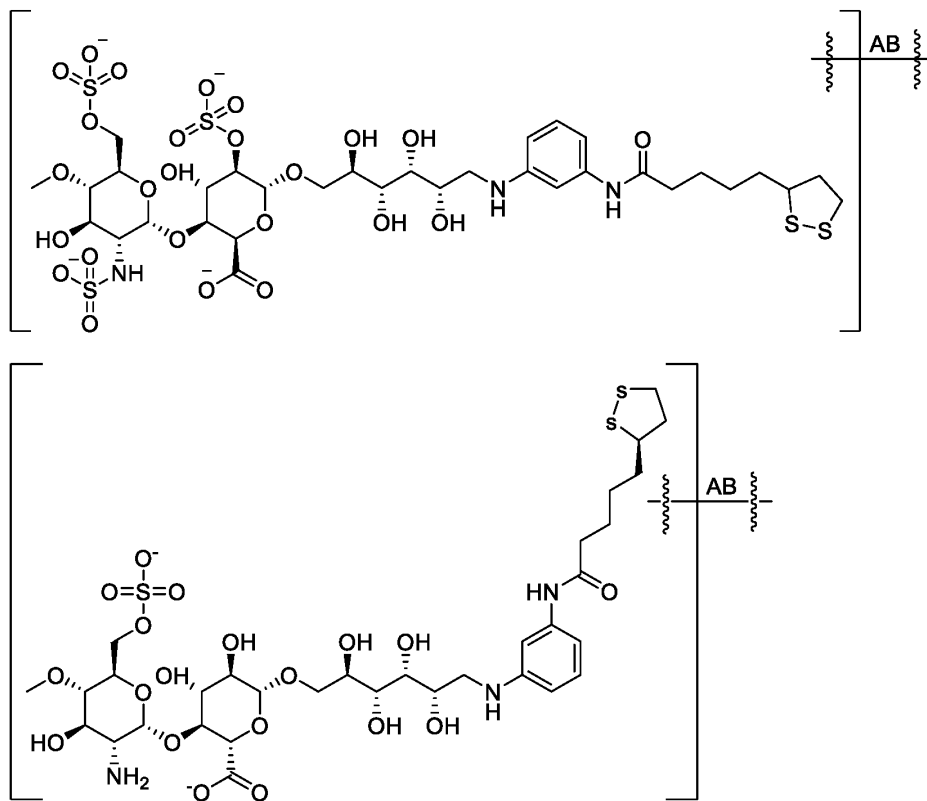


FIG. 1ZZZ

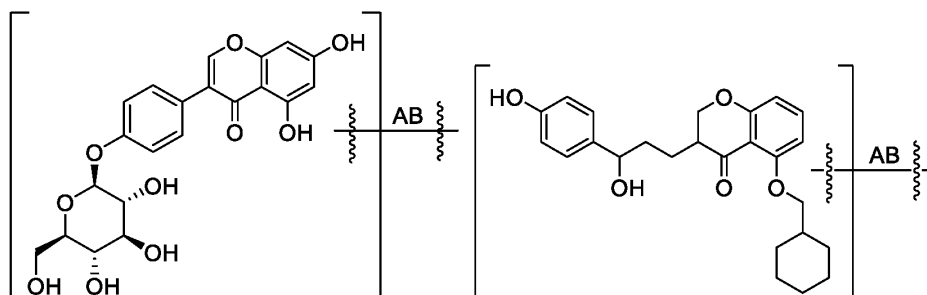


FIG. 1AAAA

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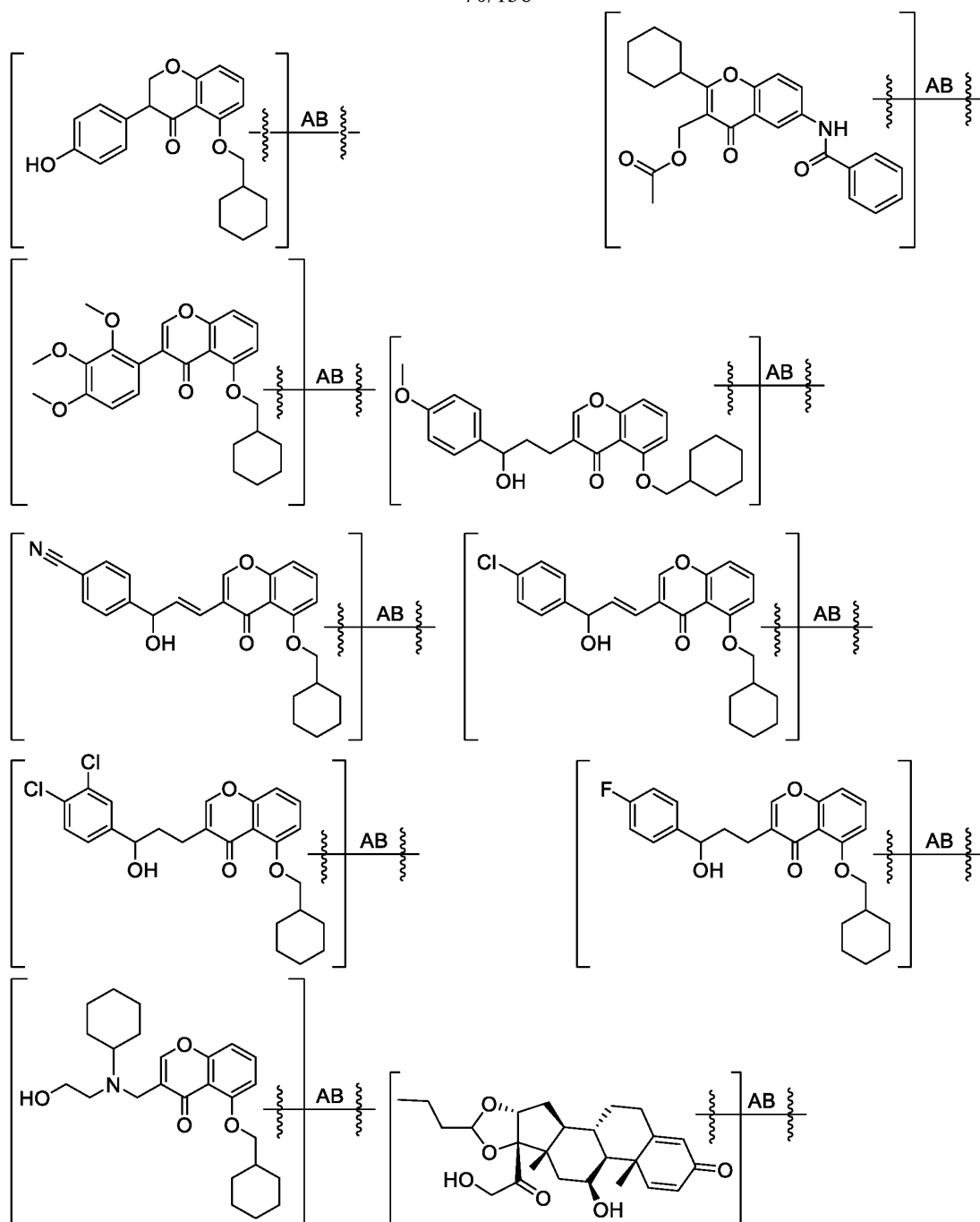


FIG. 1BBBB

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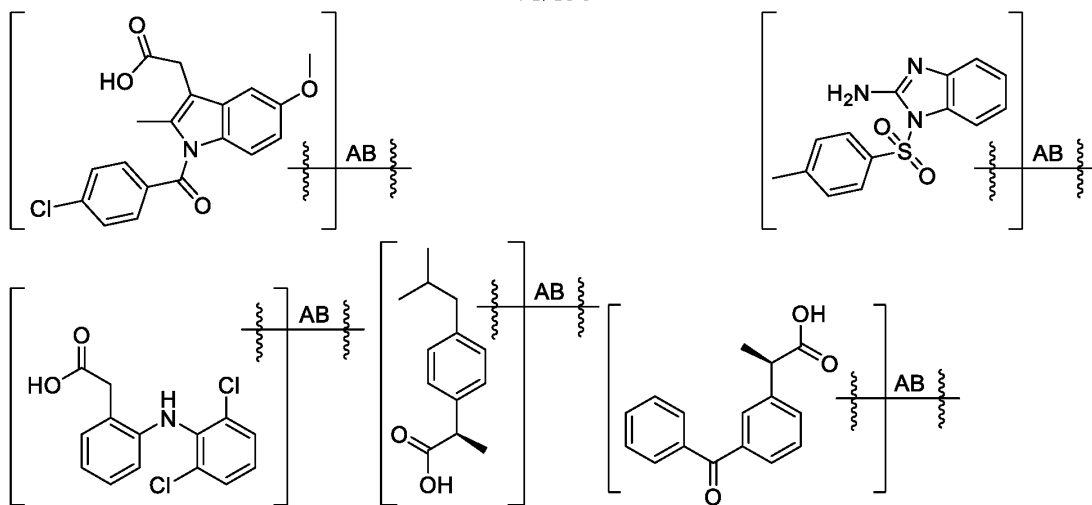


FIG. 1CCCC

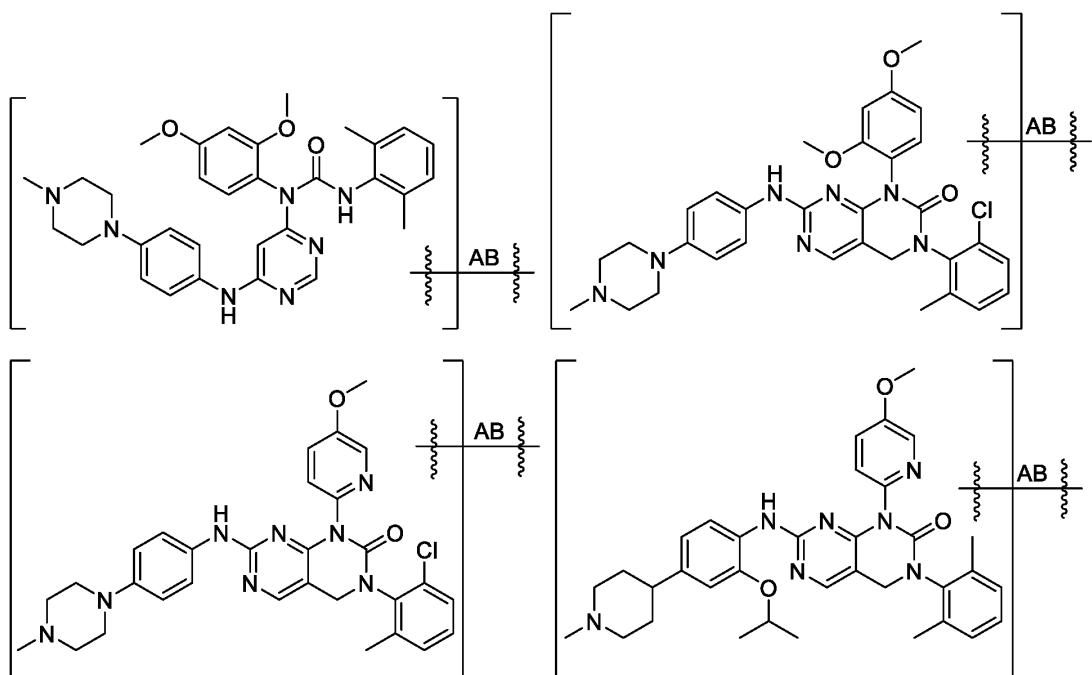


FIG. 1DDDD

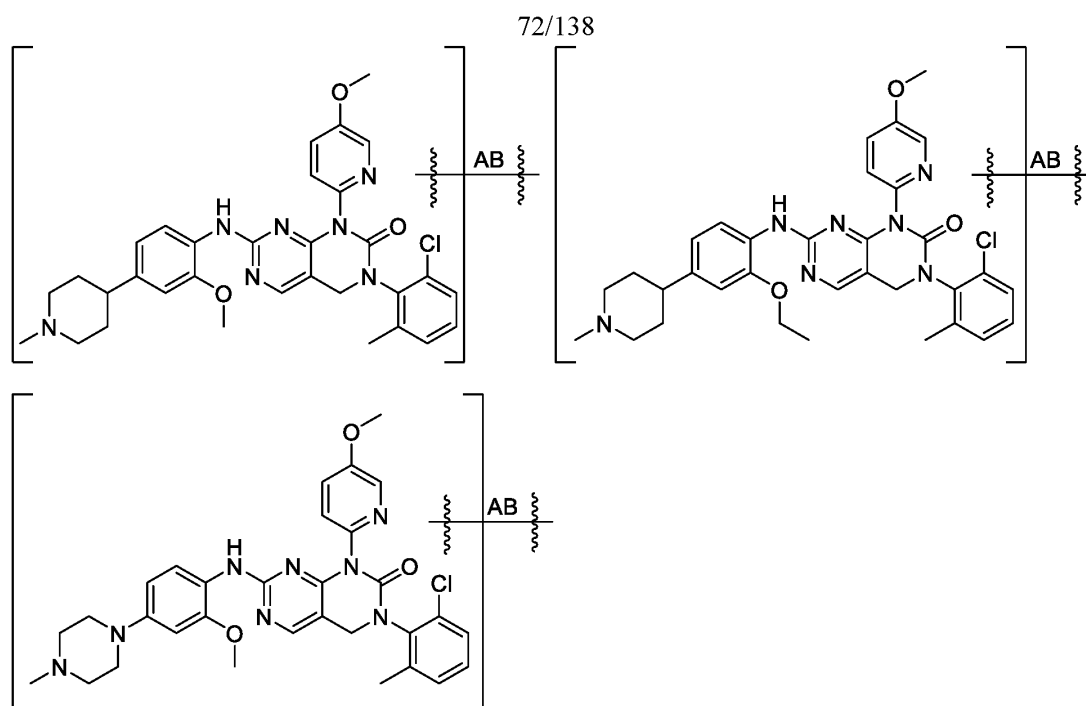


FIG. 1EEEE

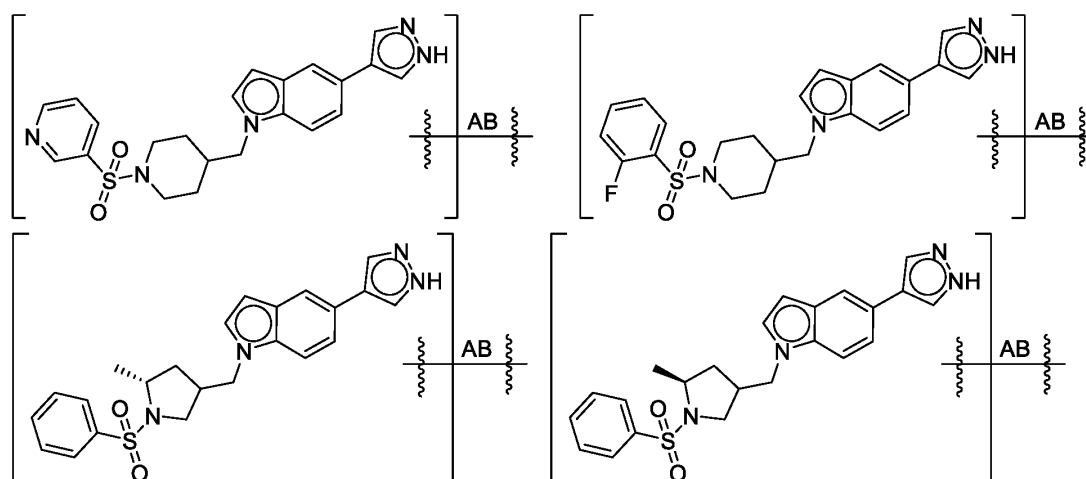


FIG. 1FFFF

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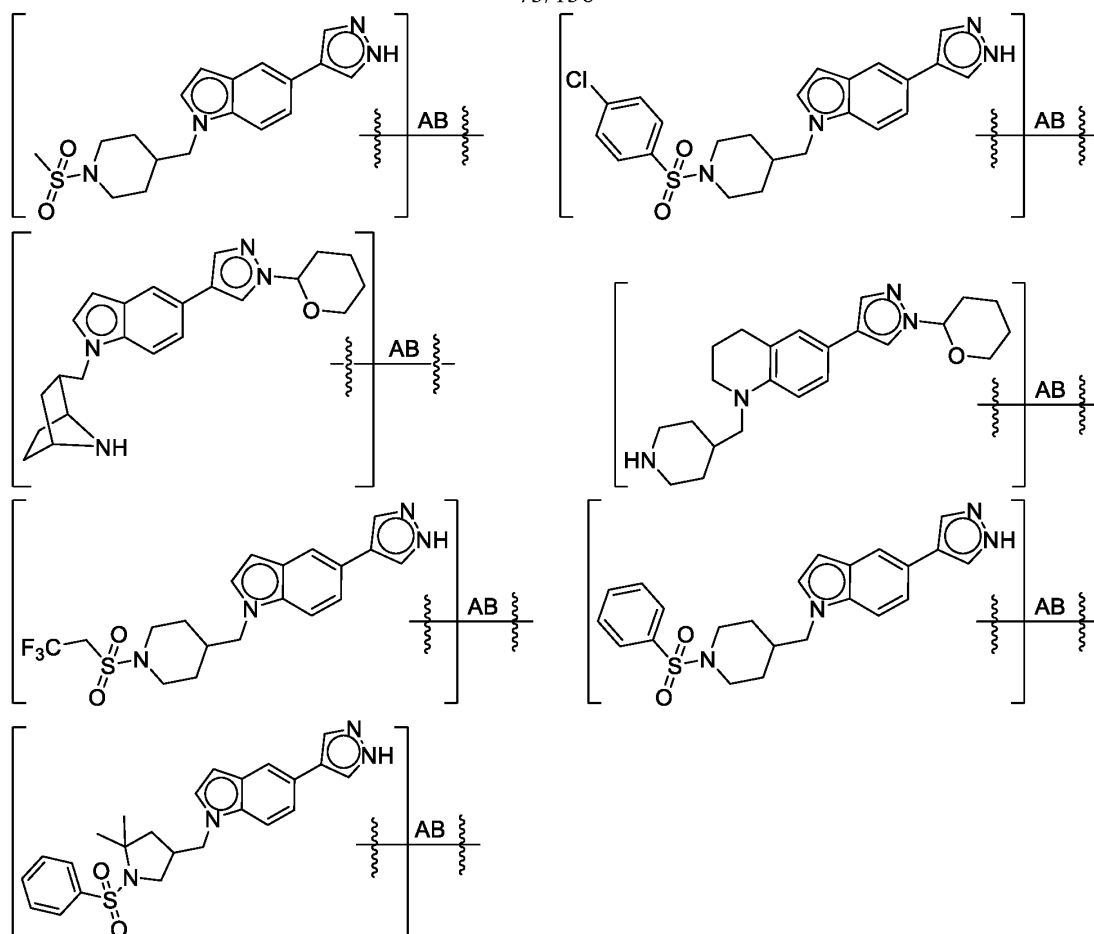


FIG. 1GGGG

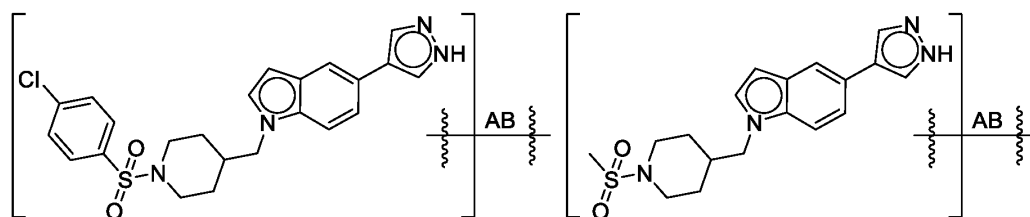


FIG. 1HHHH

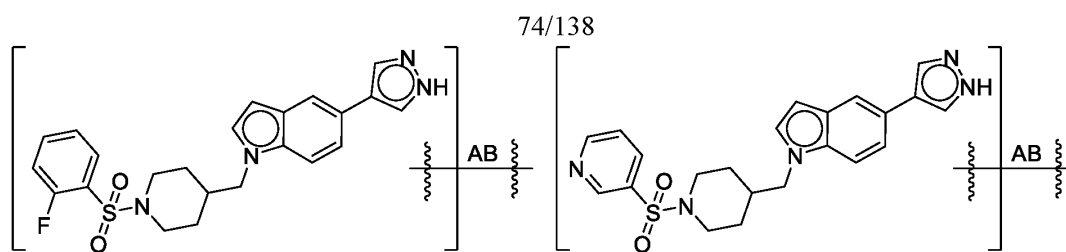


FIG 1 III

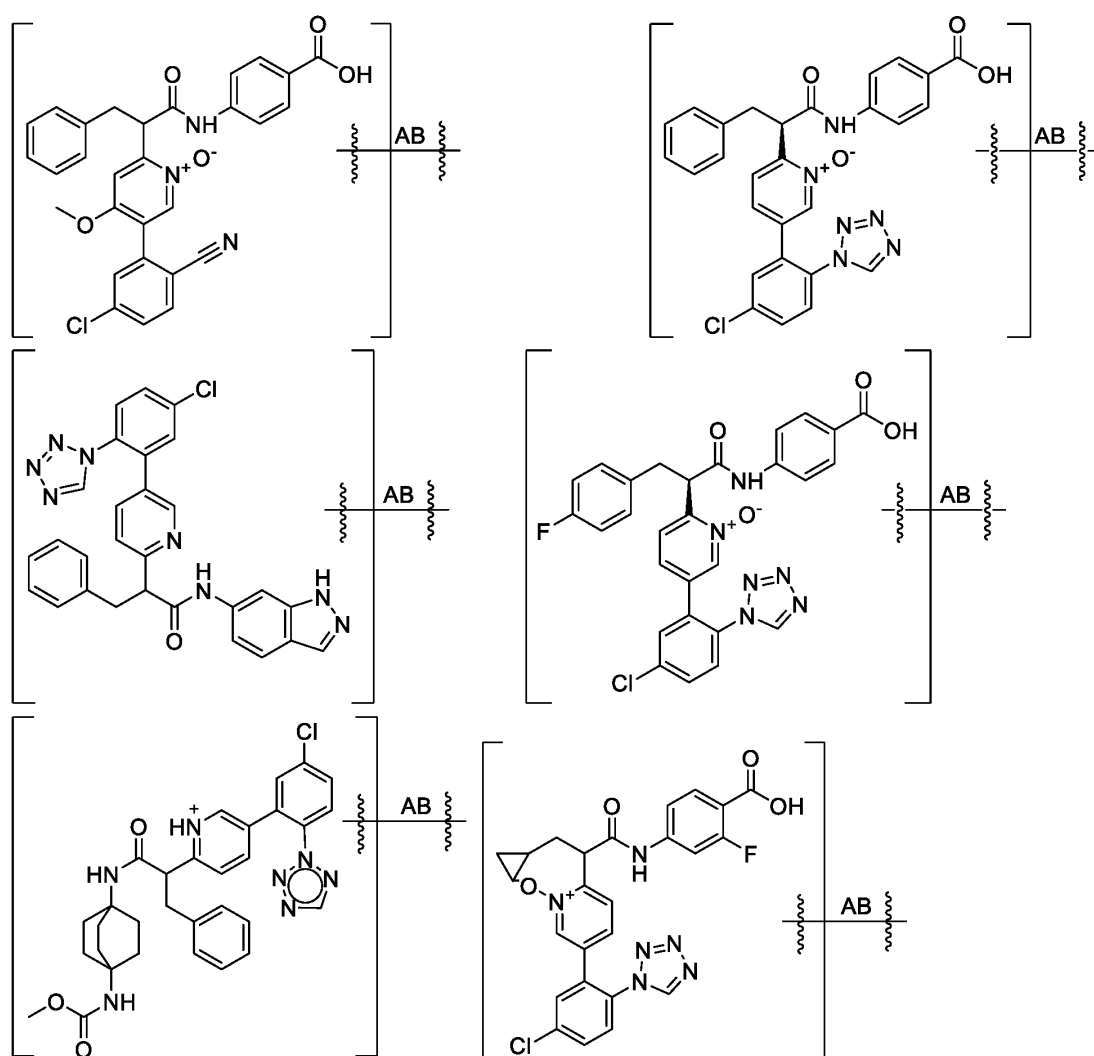


FIG. 1JJJJ

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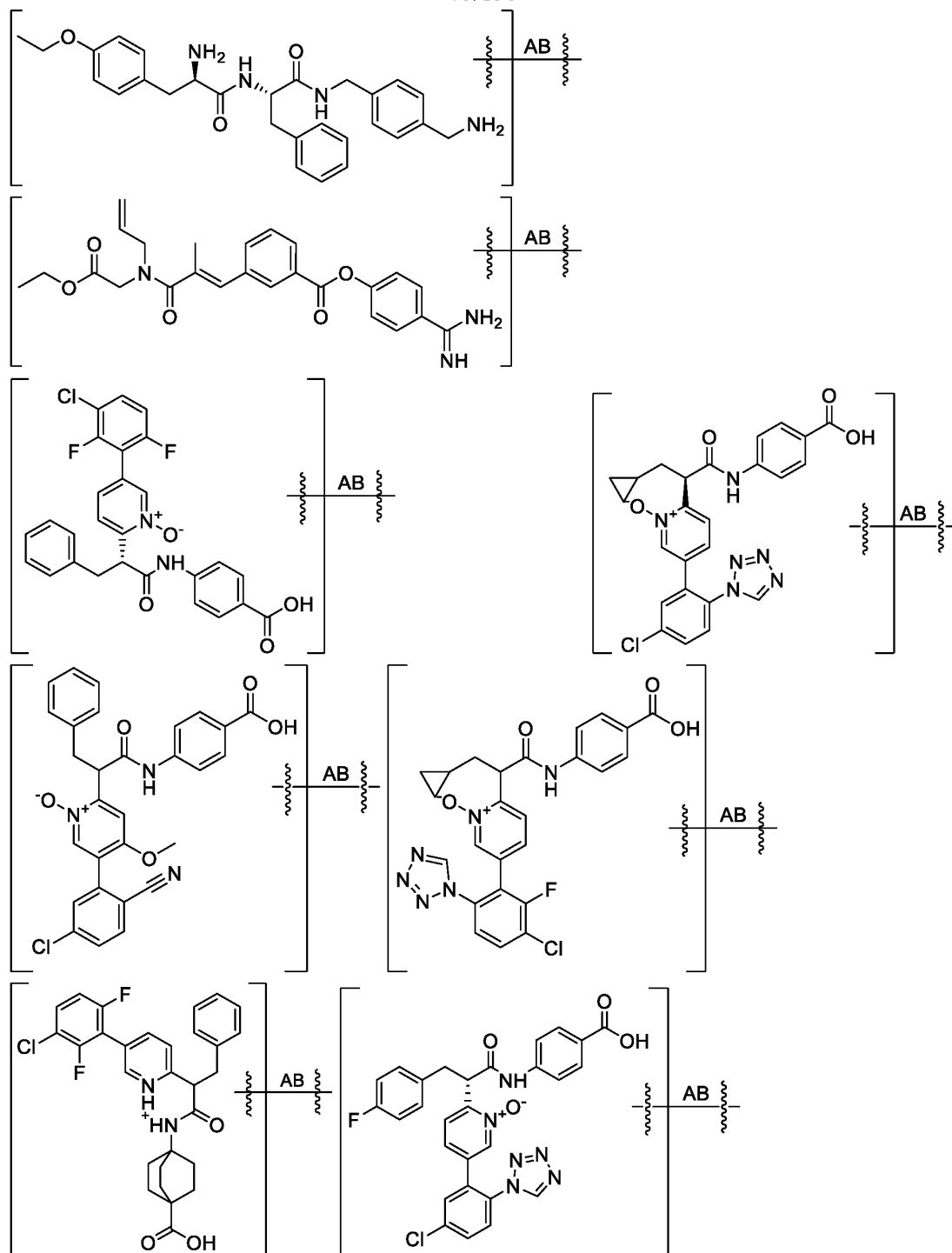


FIG. 1K K K K

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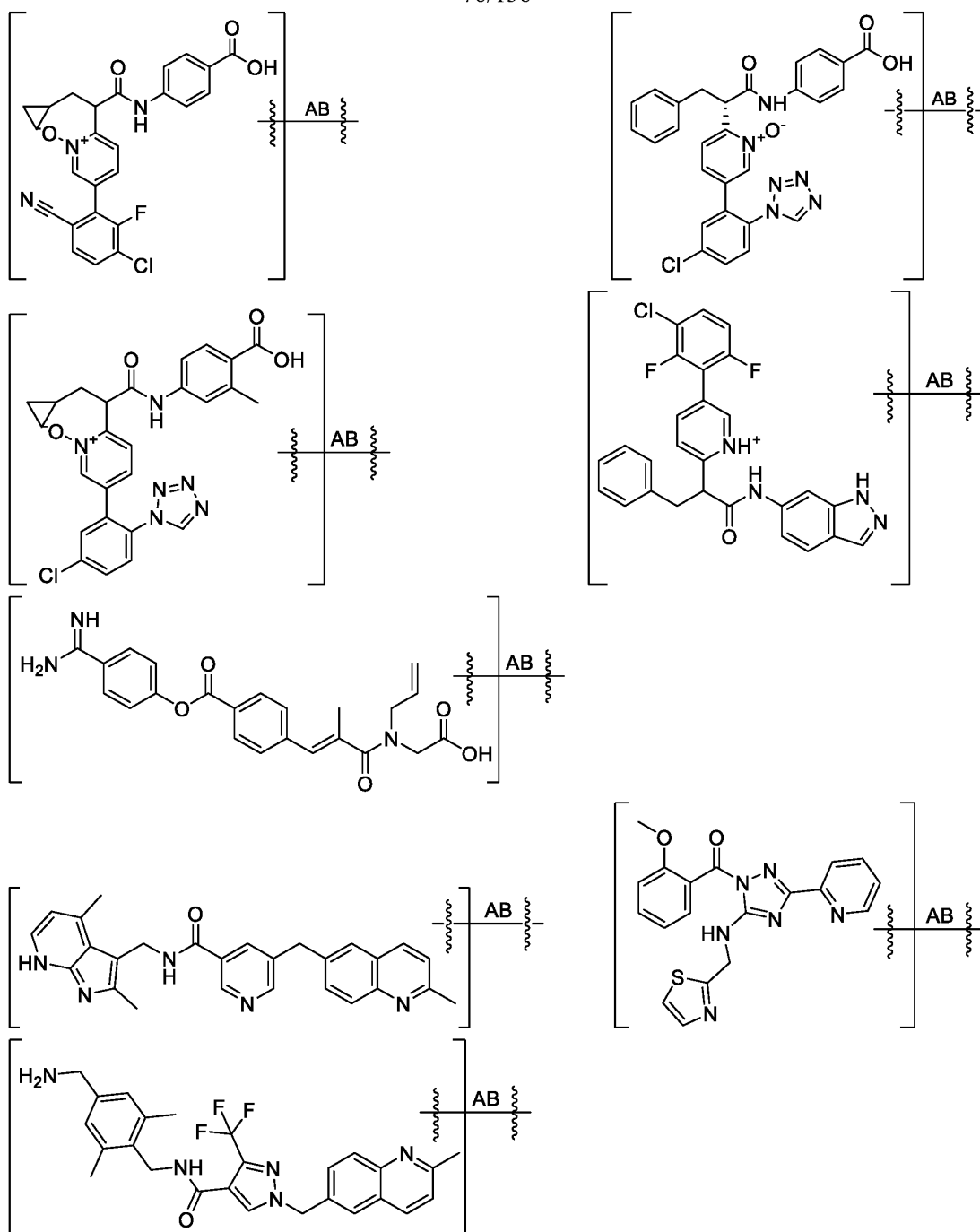


FIG. 1LLLL

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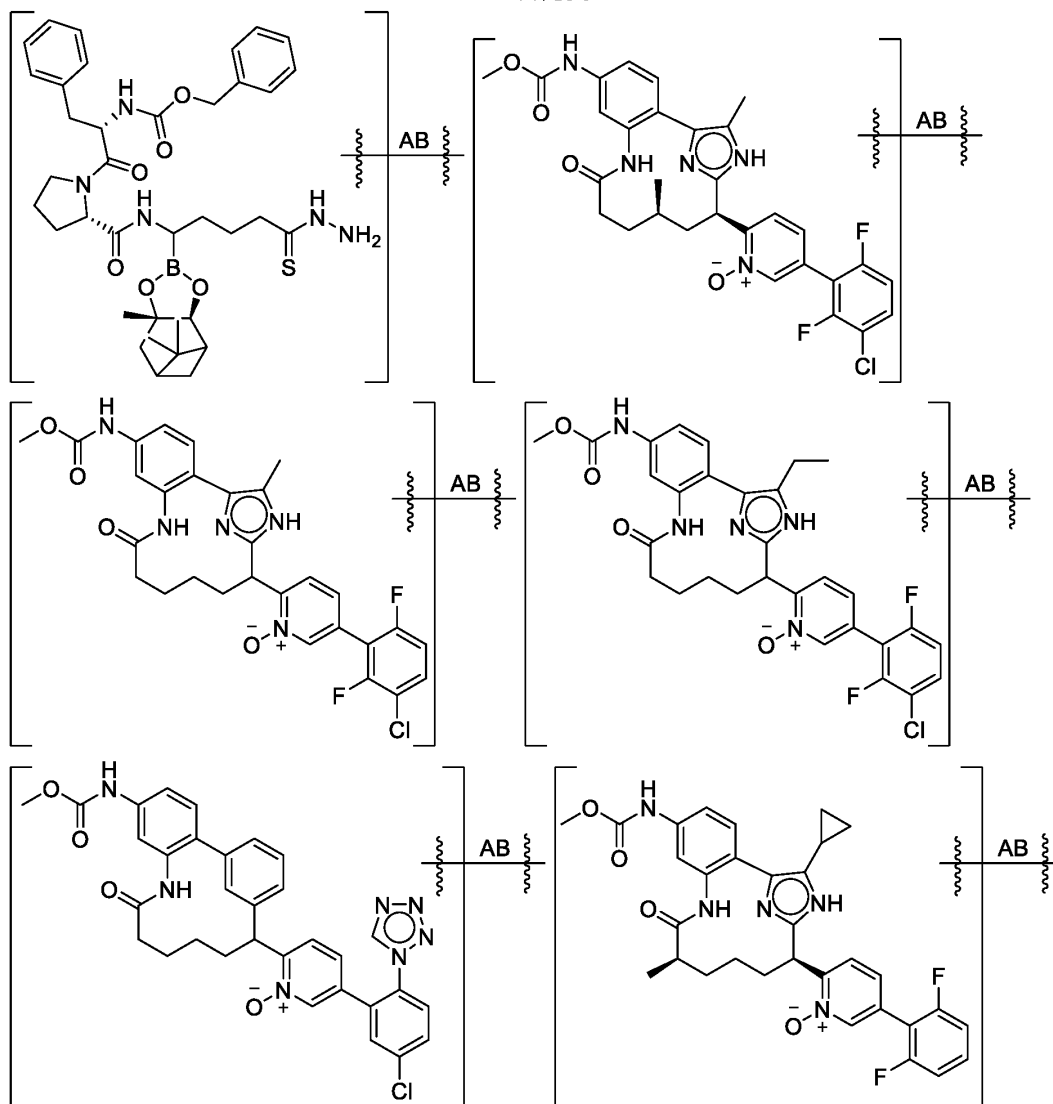


FIG. 1MMMM

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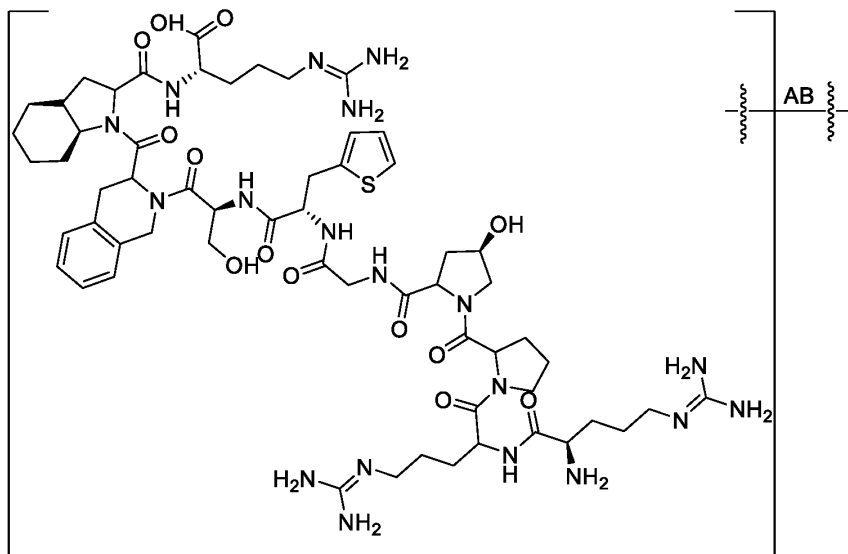


FIG. 1NNNN

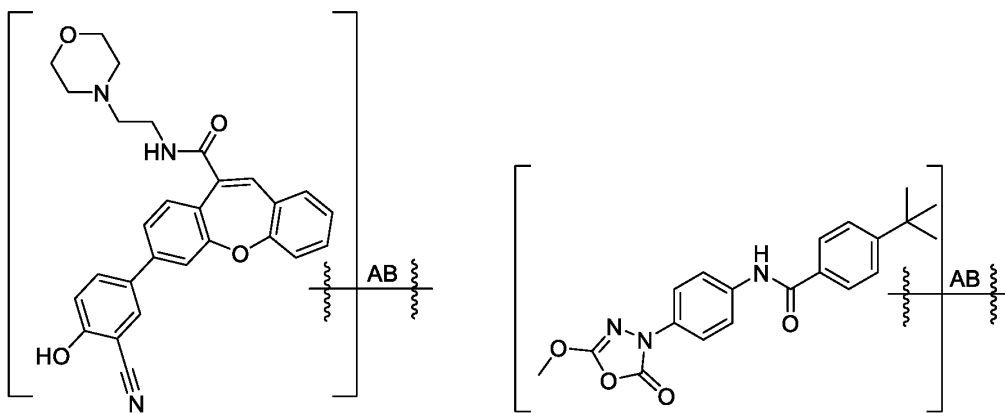


FIG 10000

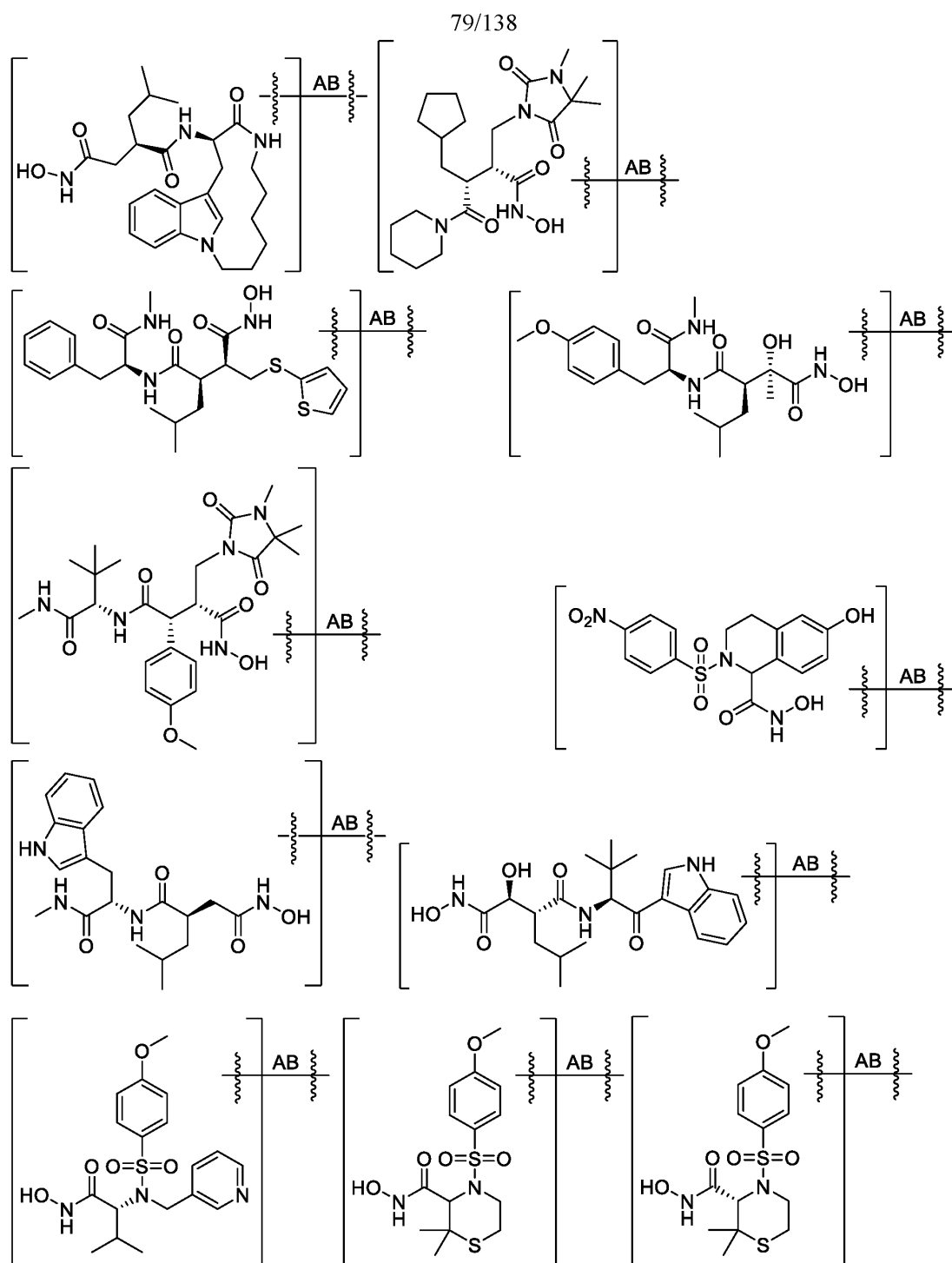


FIG. 1PPPP

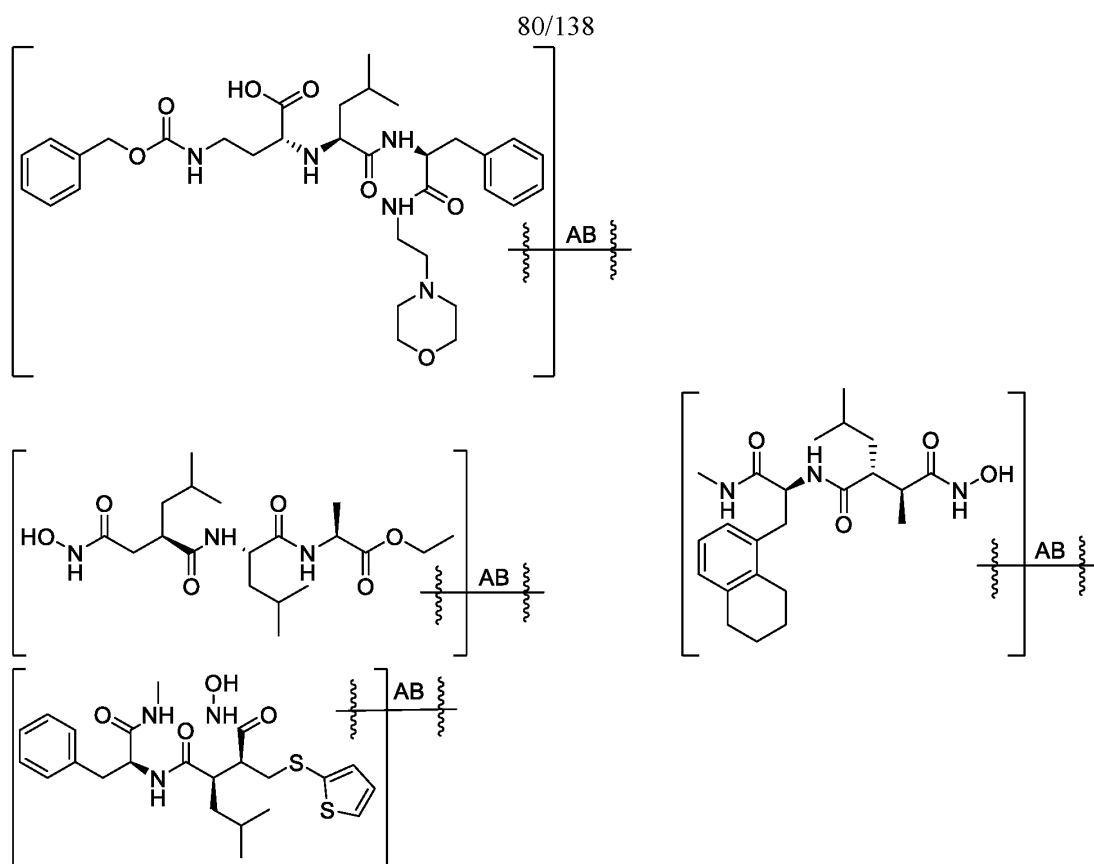


FIG. 1QQQQ

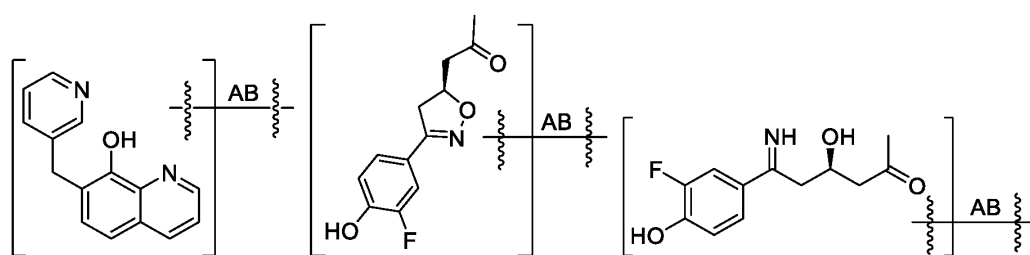


FIG. 1RRRR

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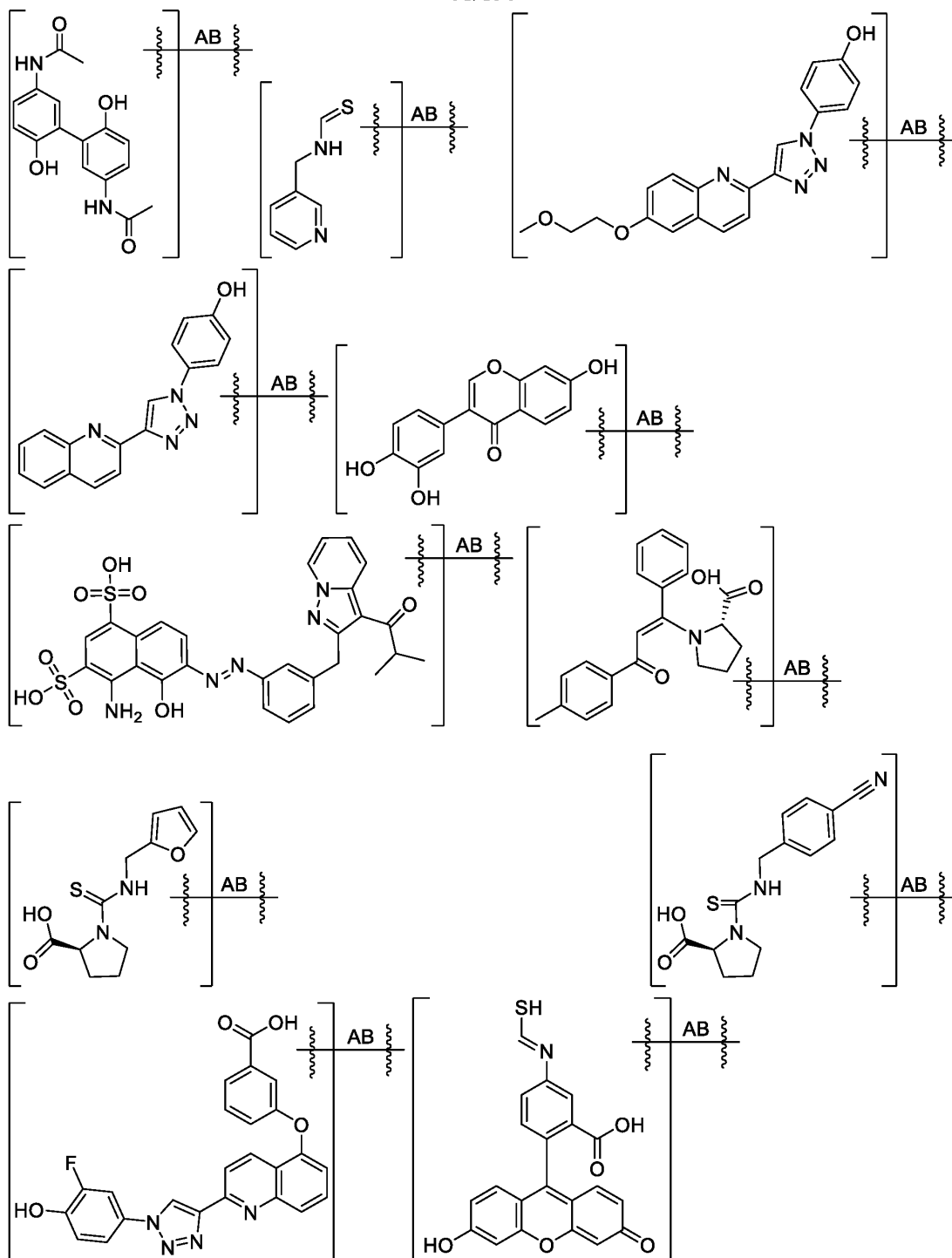


FIG. 1SSSS

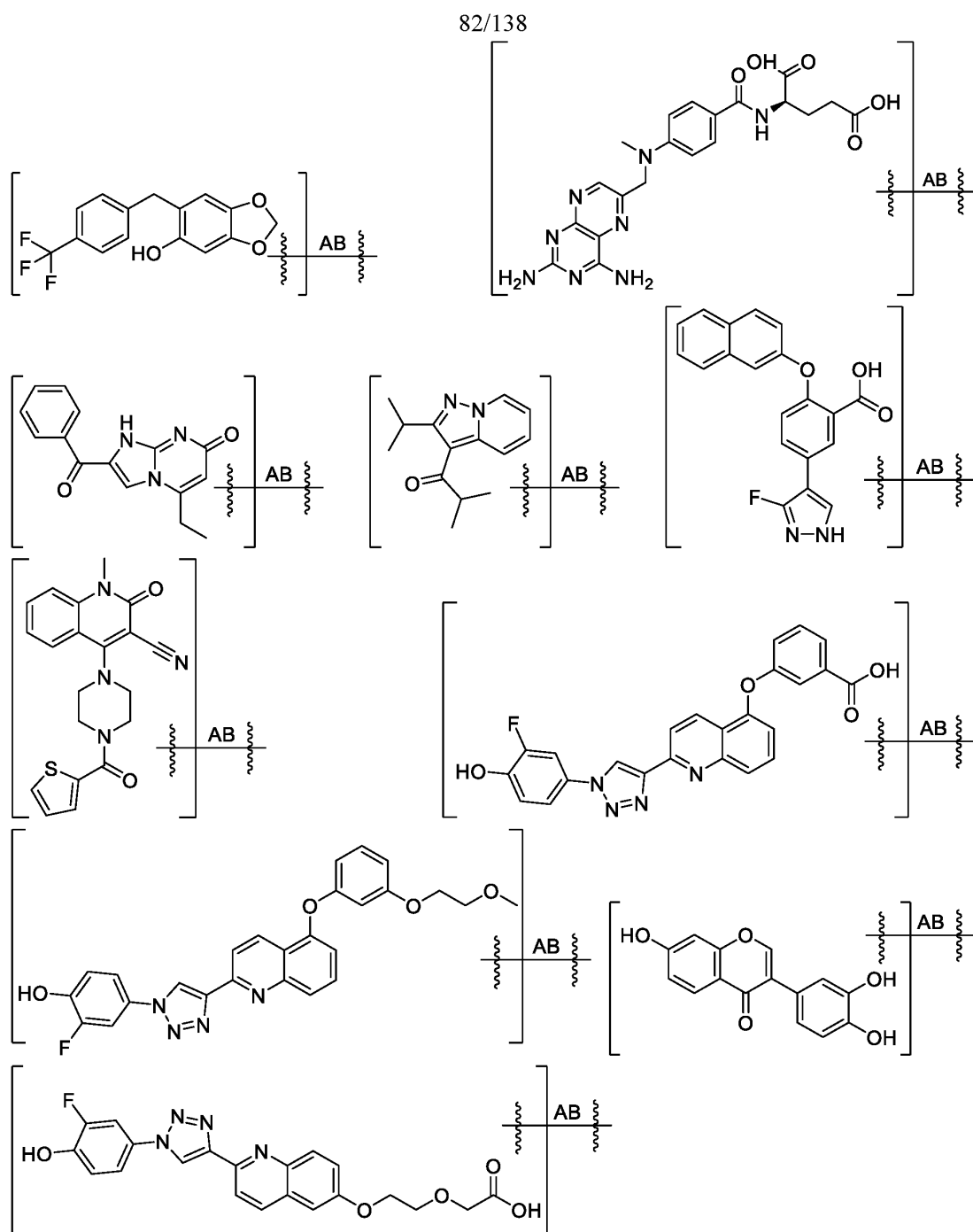


FIG. 1TTTT

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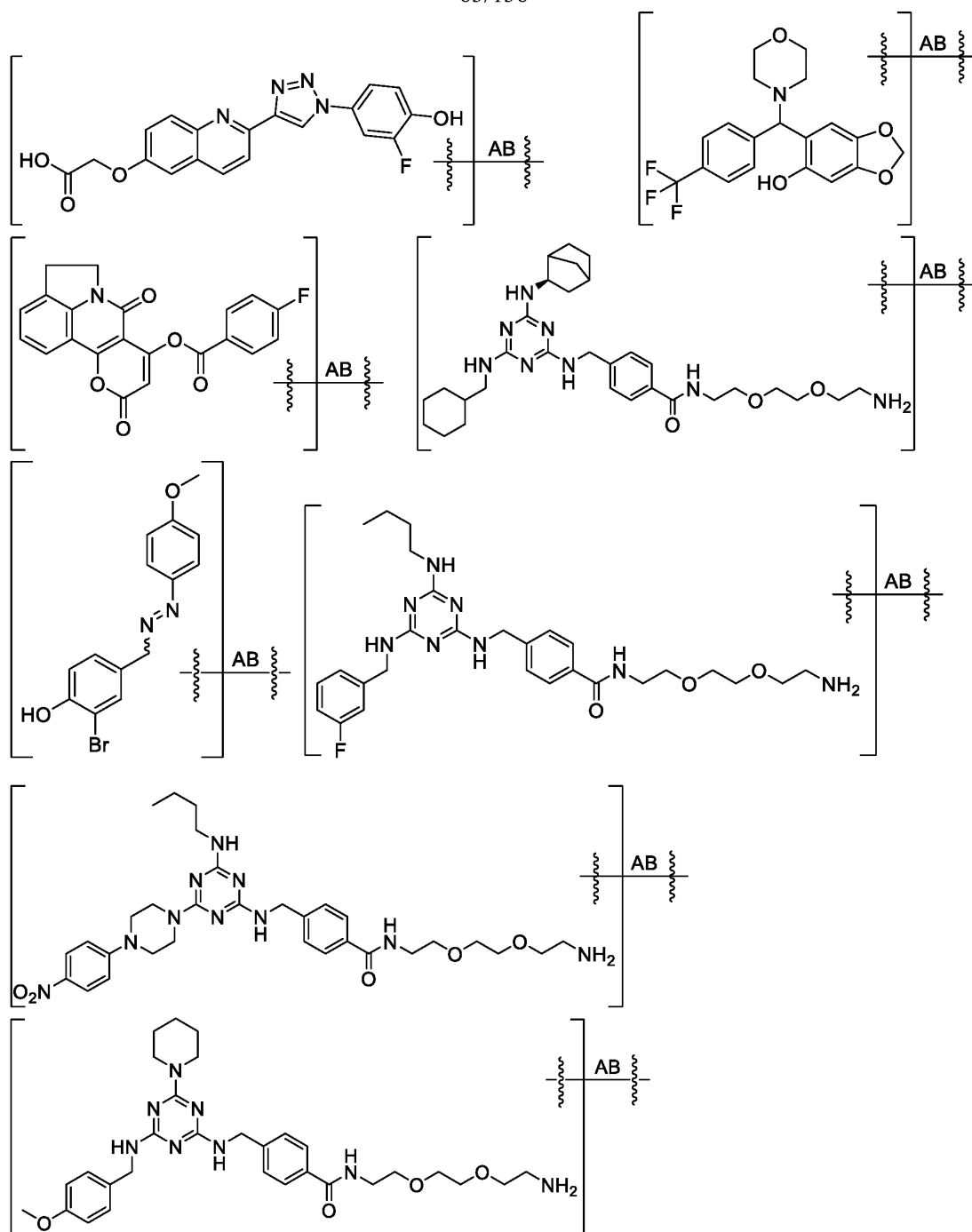


FIG. 1UUUU

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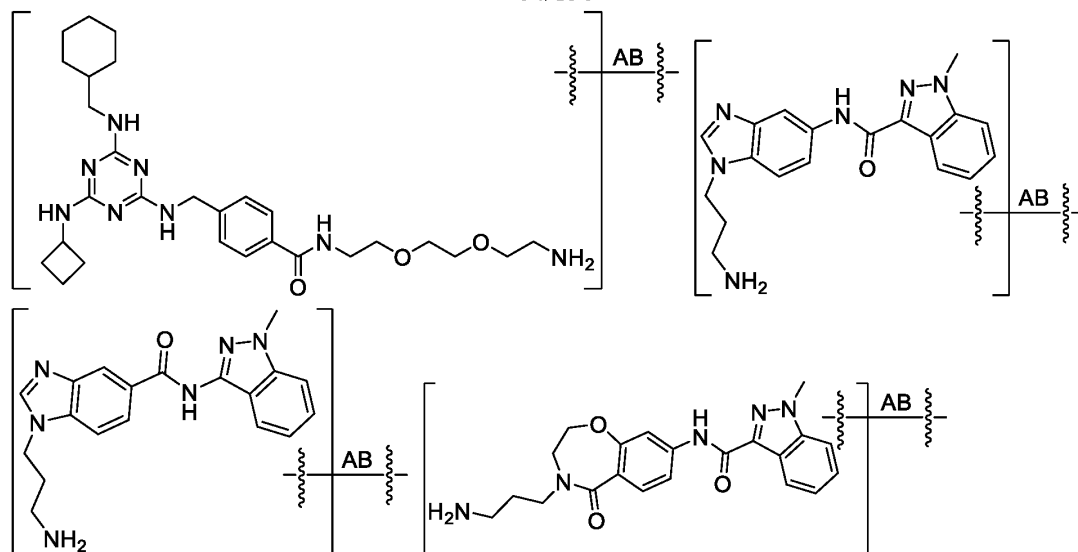


FIG. 1VVVV

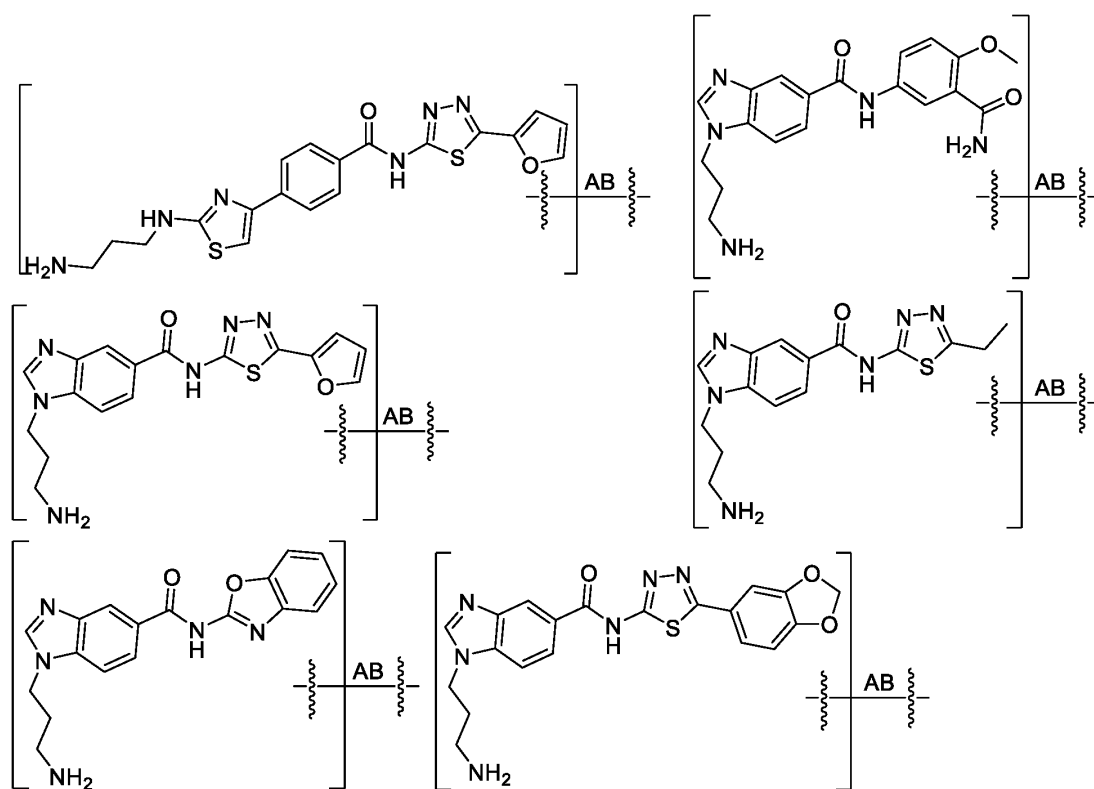


FIG. 1WWWW

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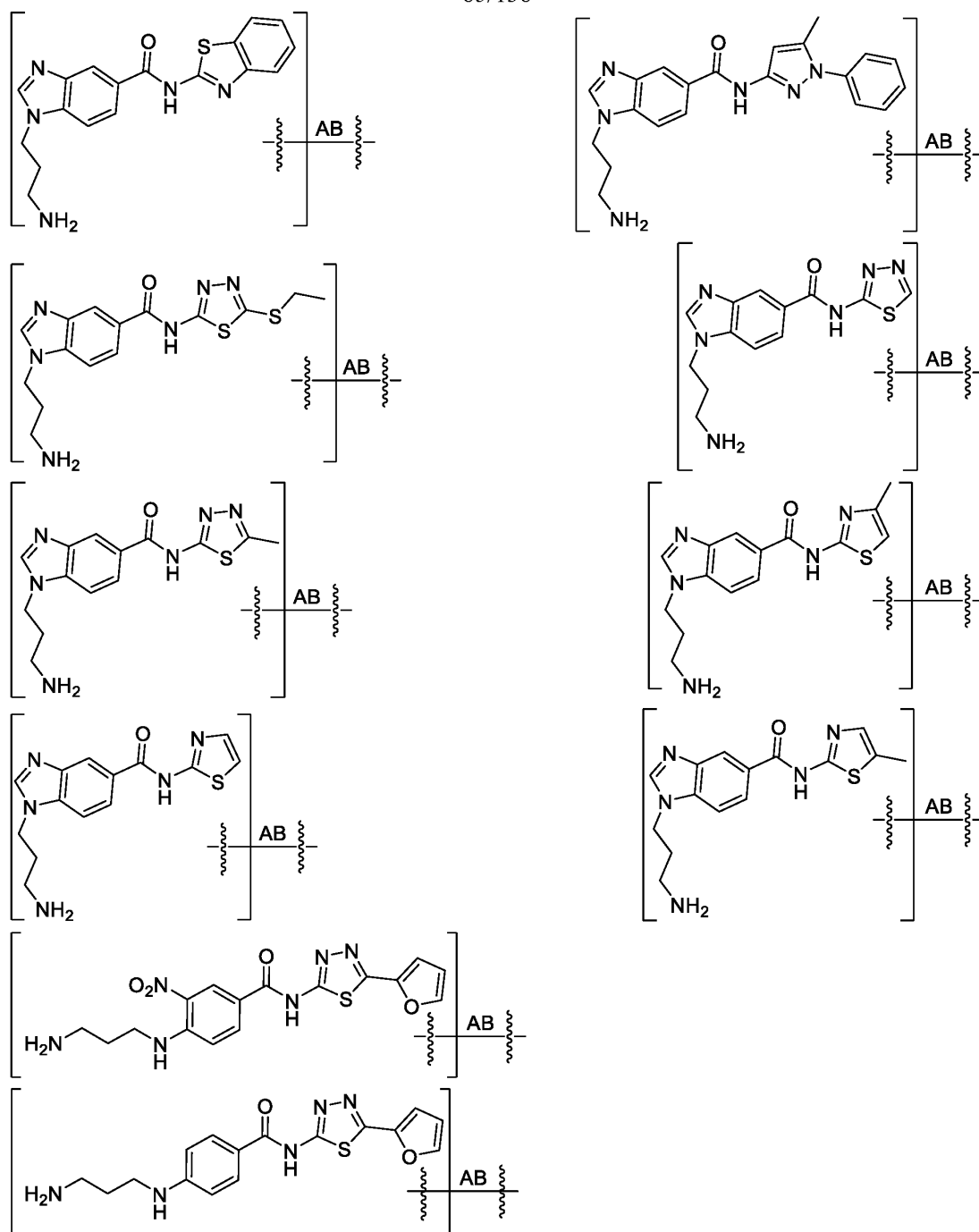


FIG. 1XXXX

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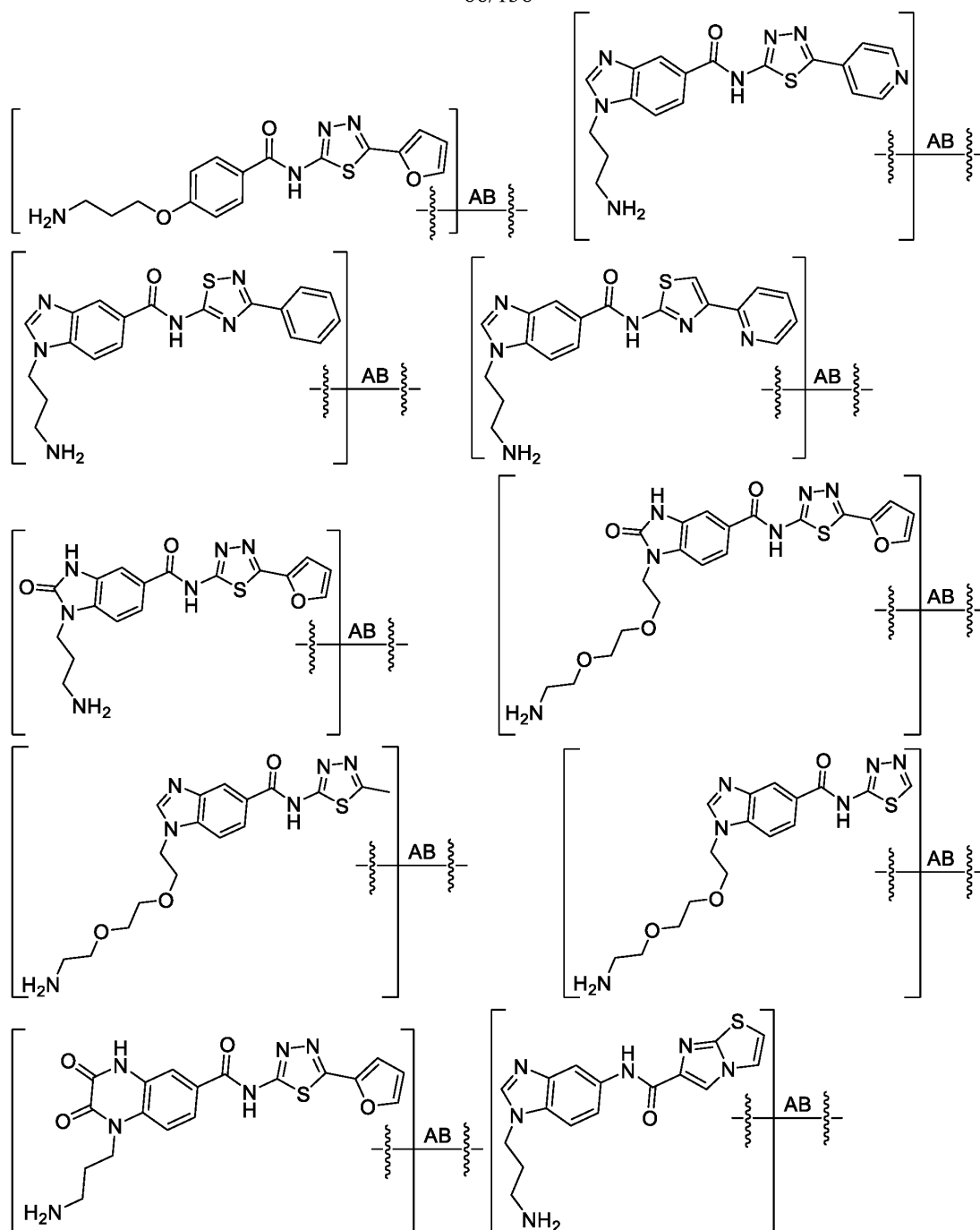


FIG. 1YYYY

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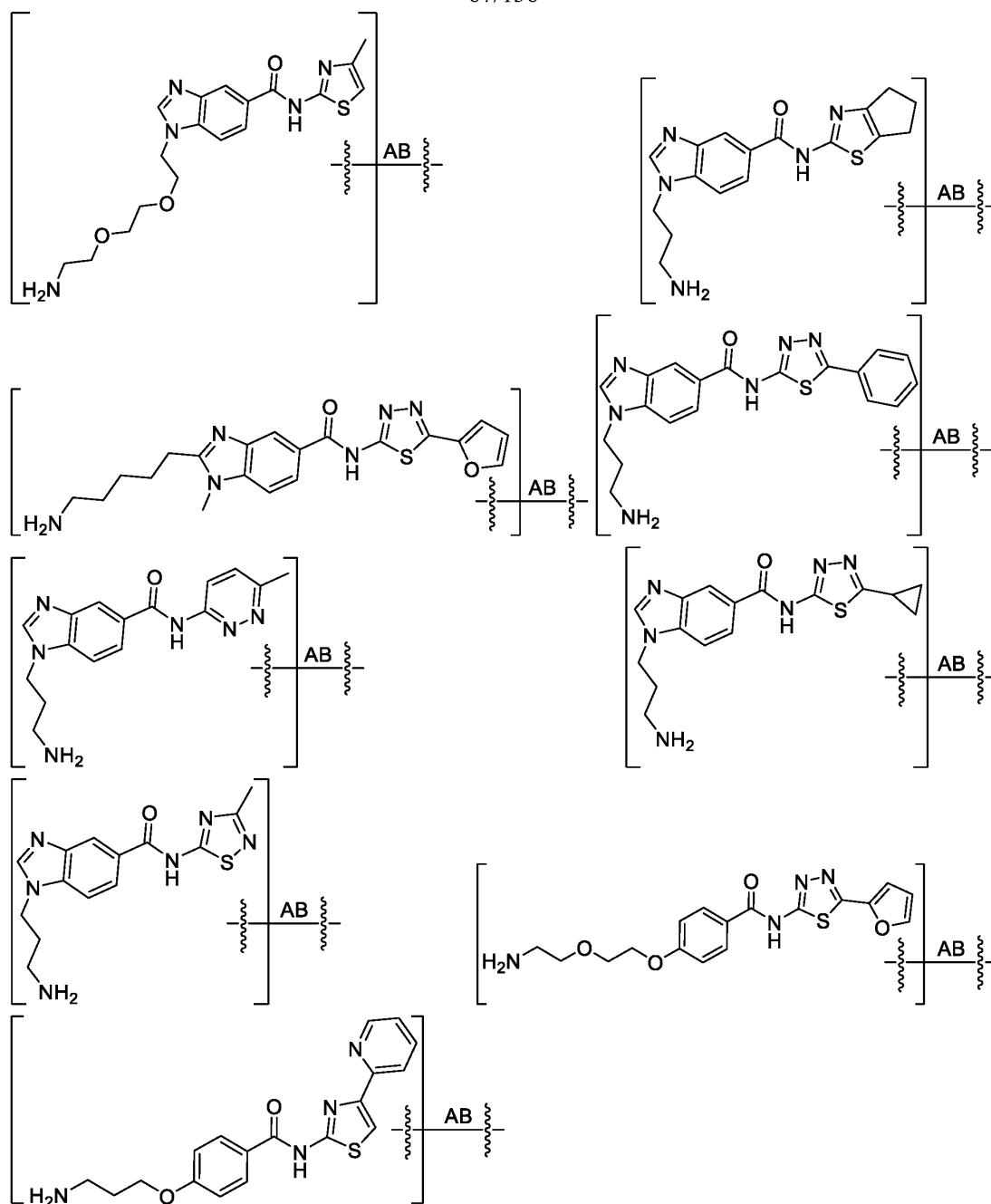


FIG. 1ZZZZ

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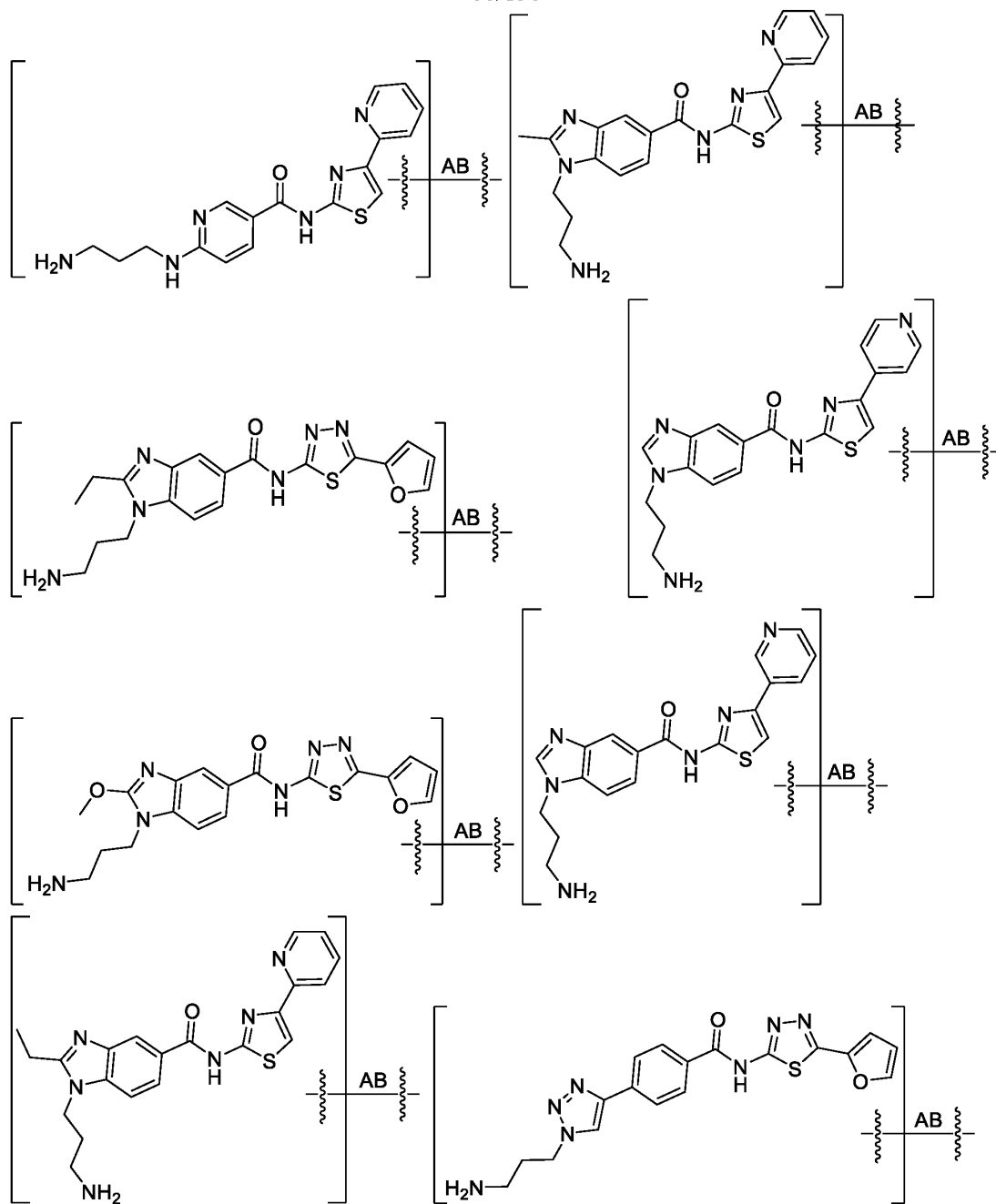


FIG. 1AAAAA

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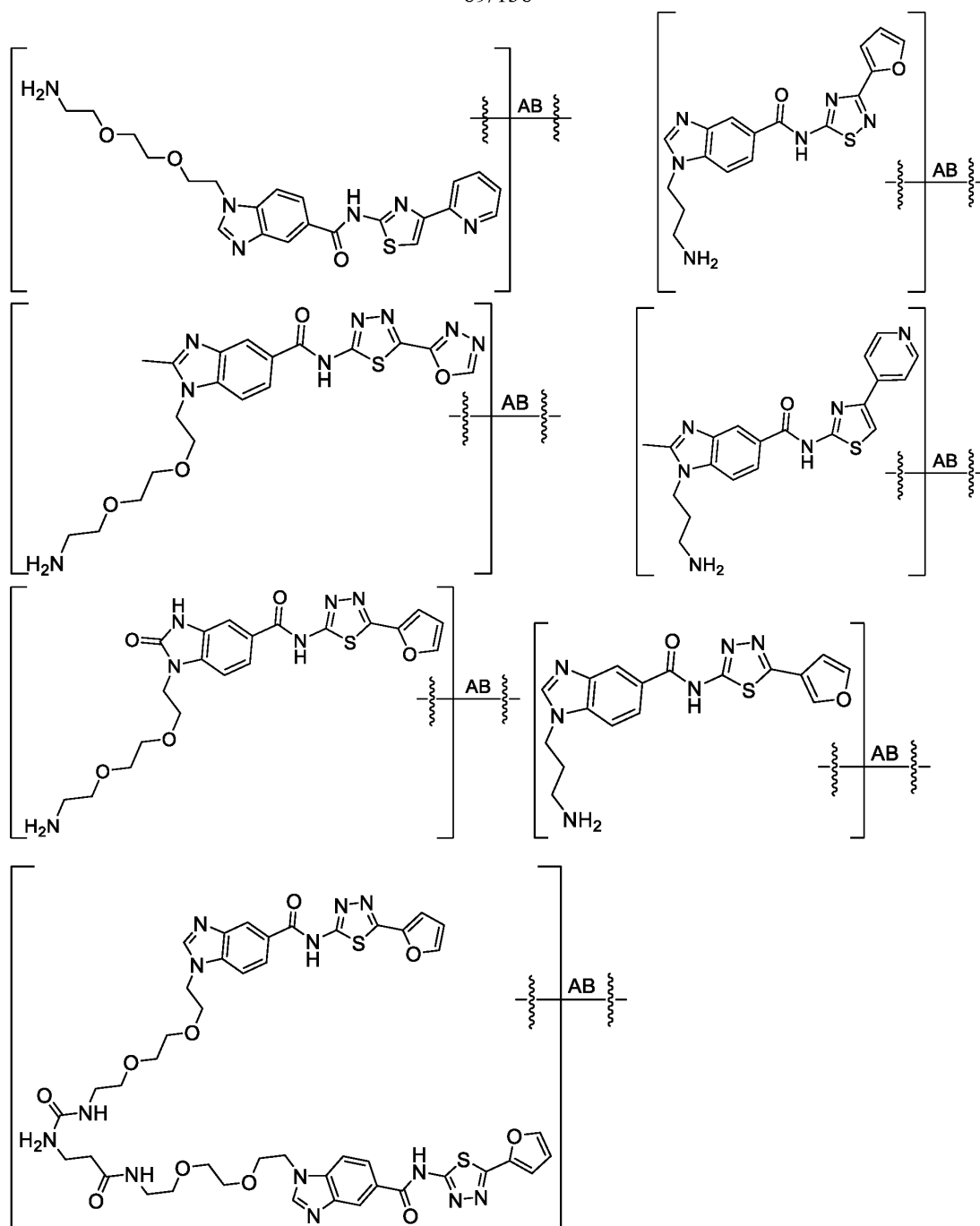


FIG. 1BBBBB

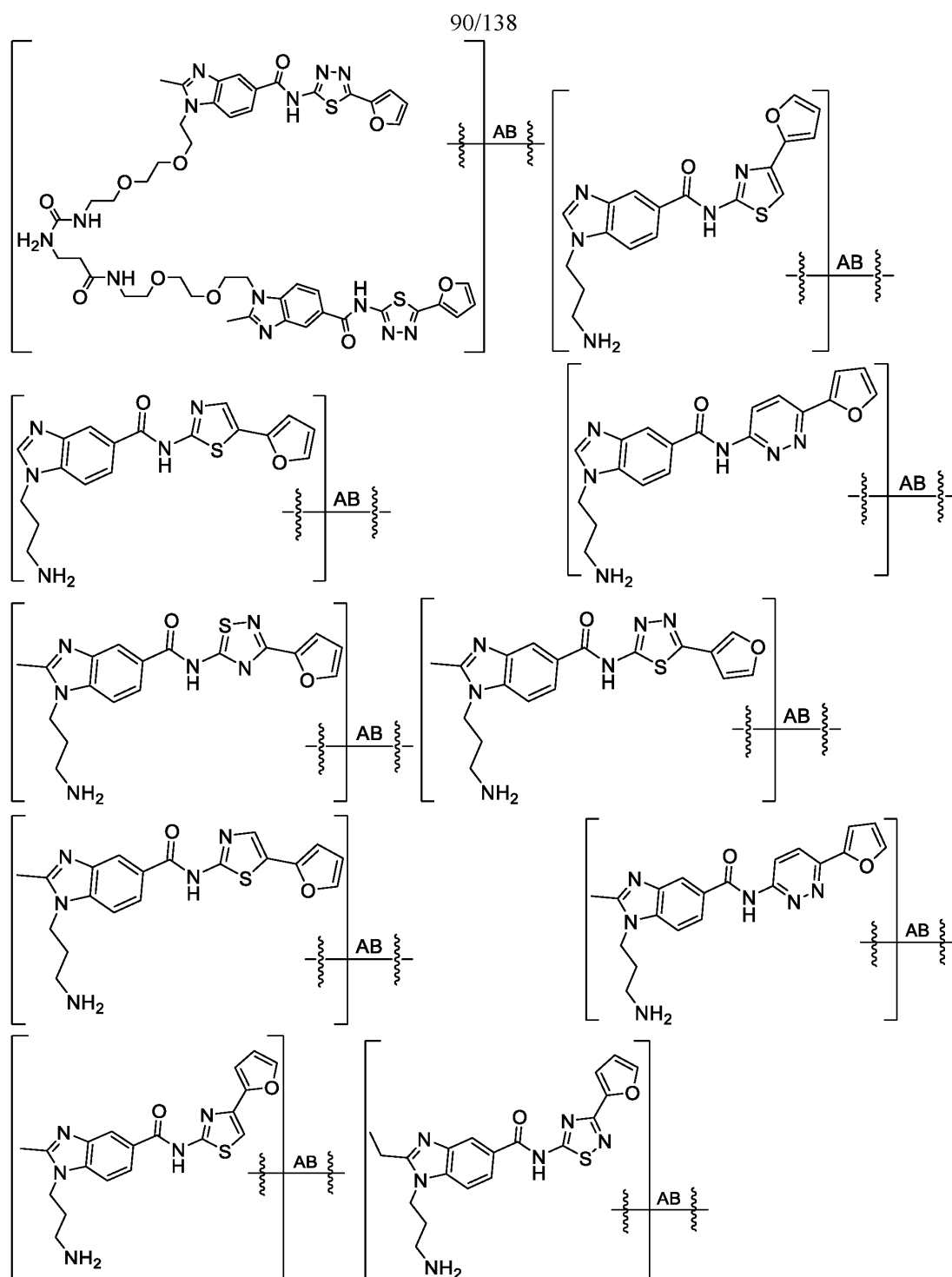


FIG. 1CCCCC

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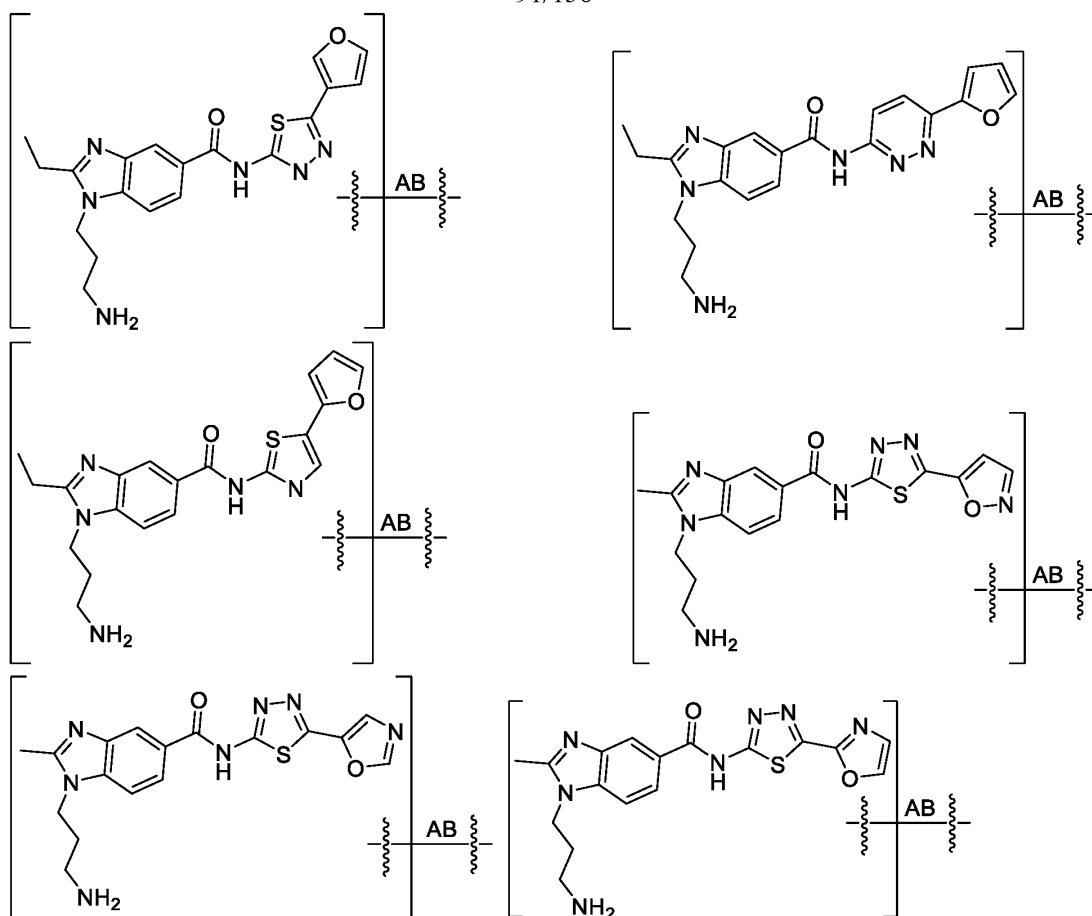


FIG. 1DDDDD

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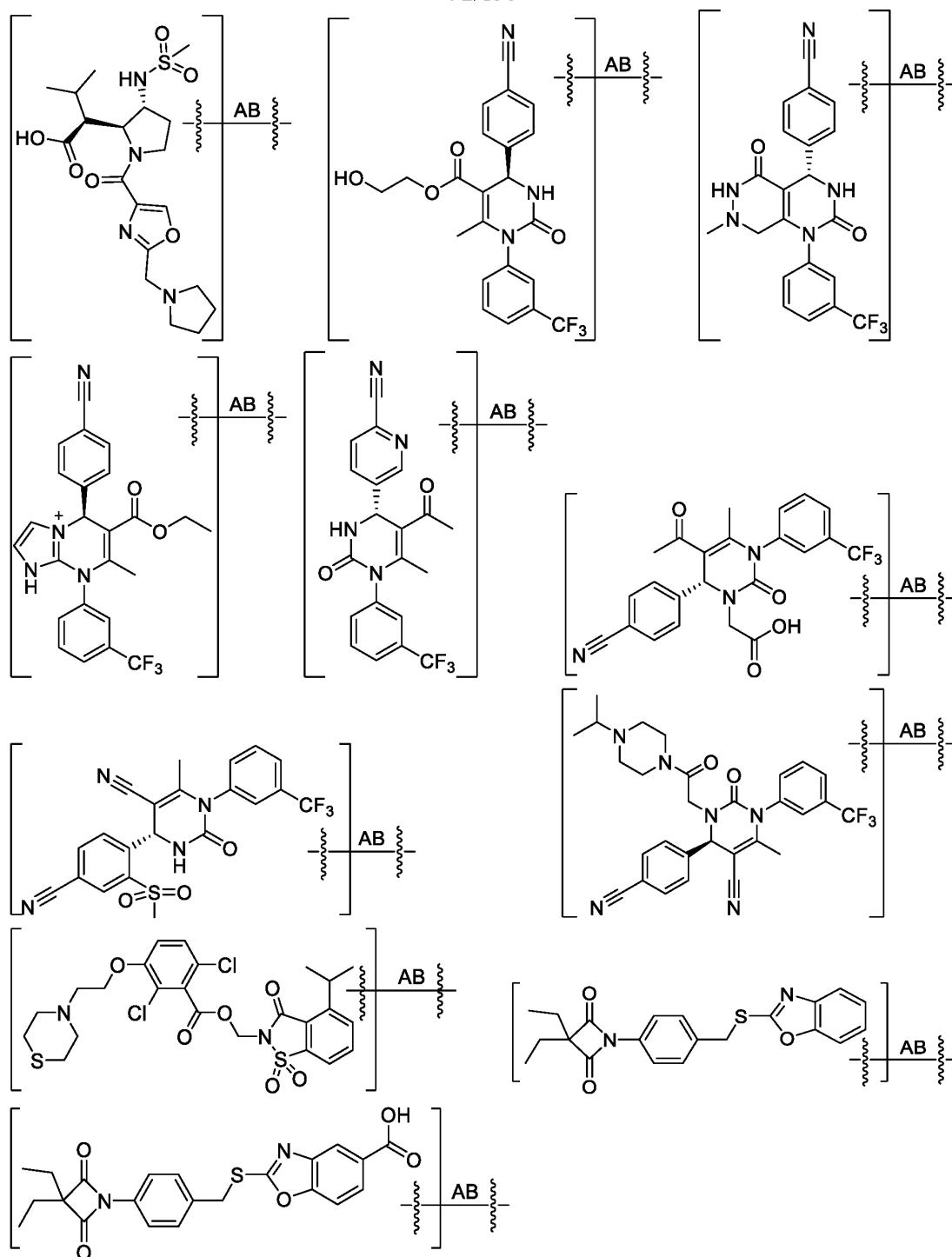


FIG. 1E EEE

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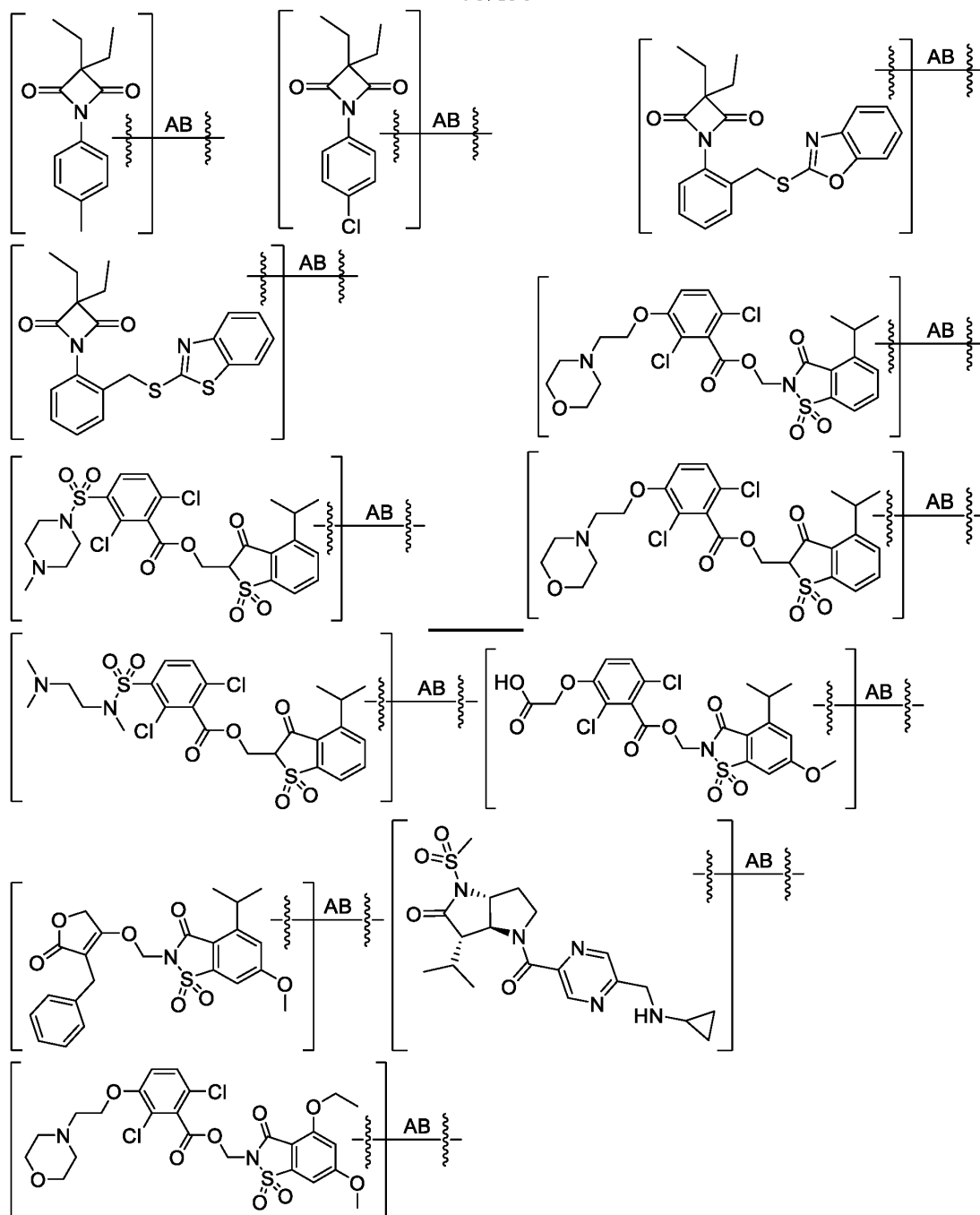


FIG. 1FFFFF

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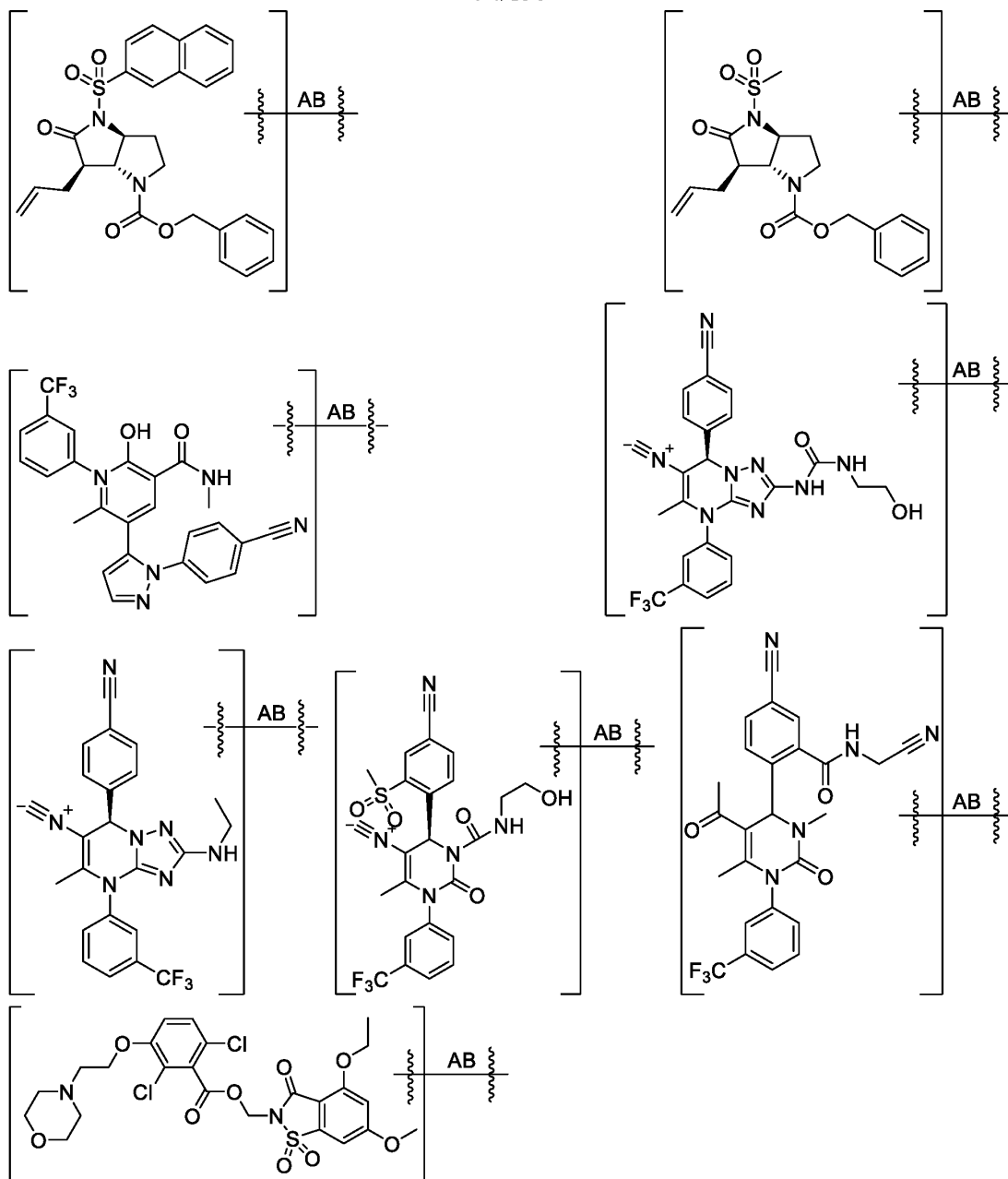


FIG. 1GGGGG

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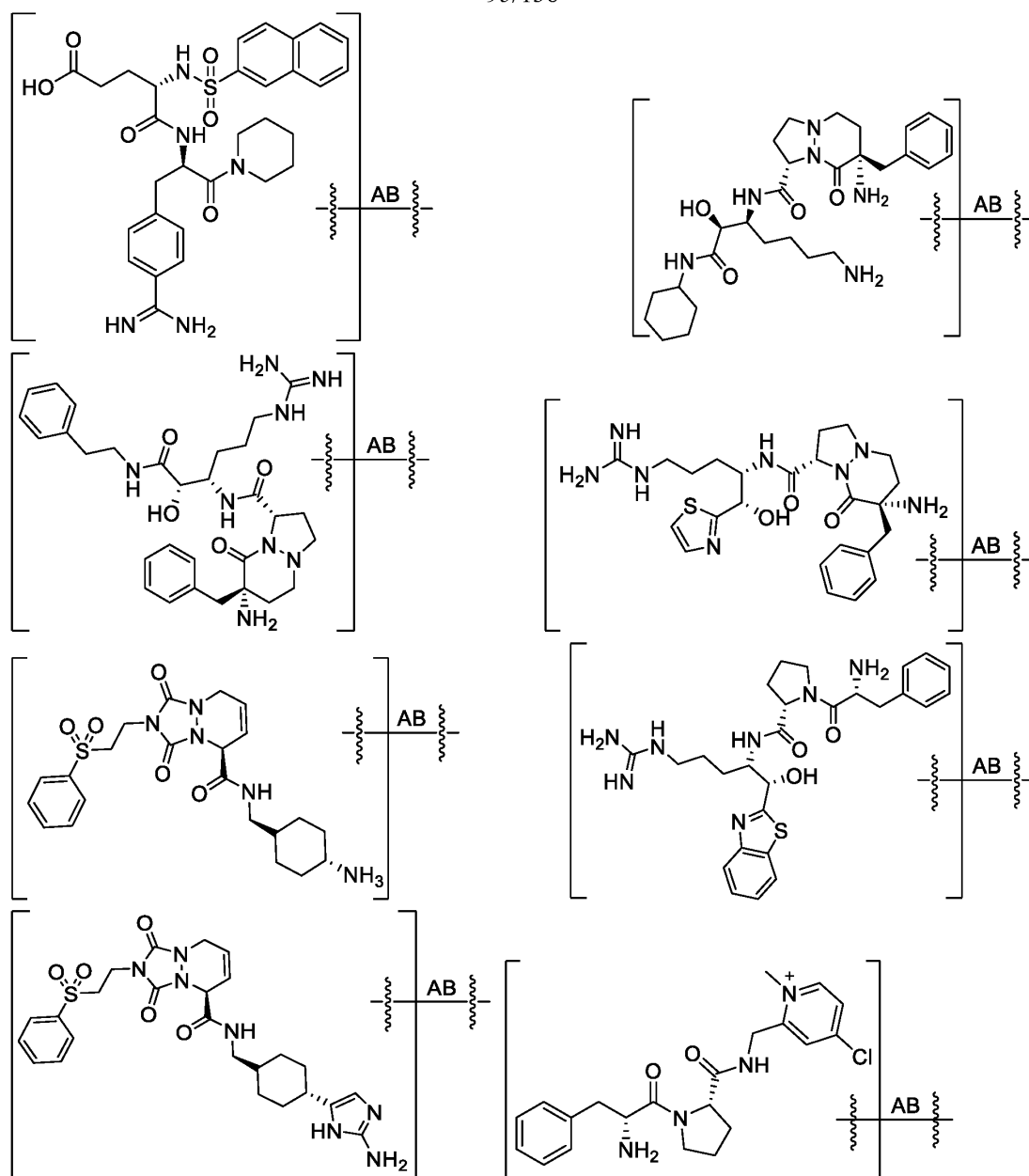


FIG. 1HHHHH

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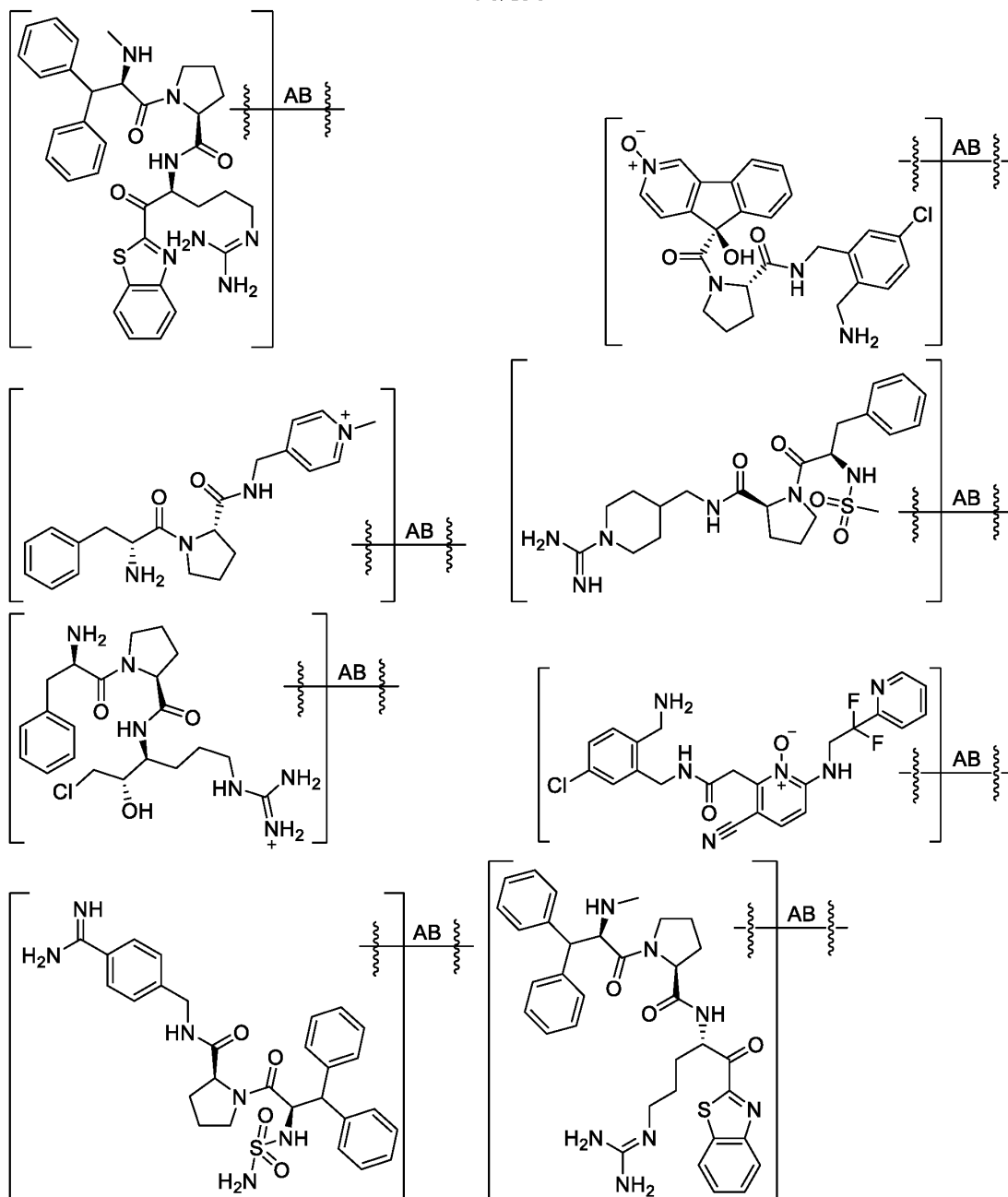


FIG. 1IIII

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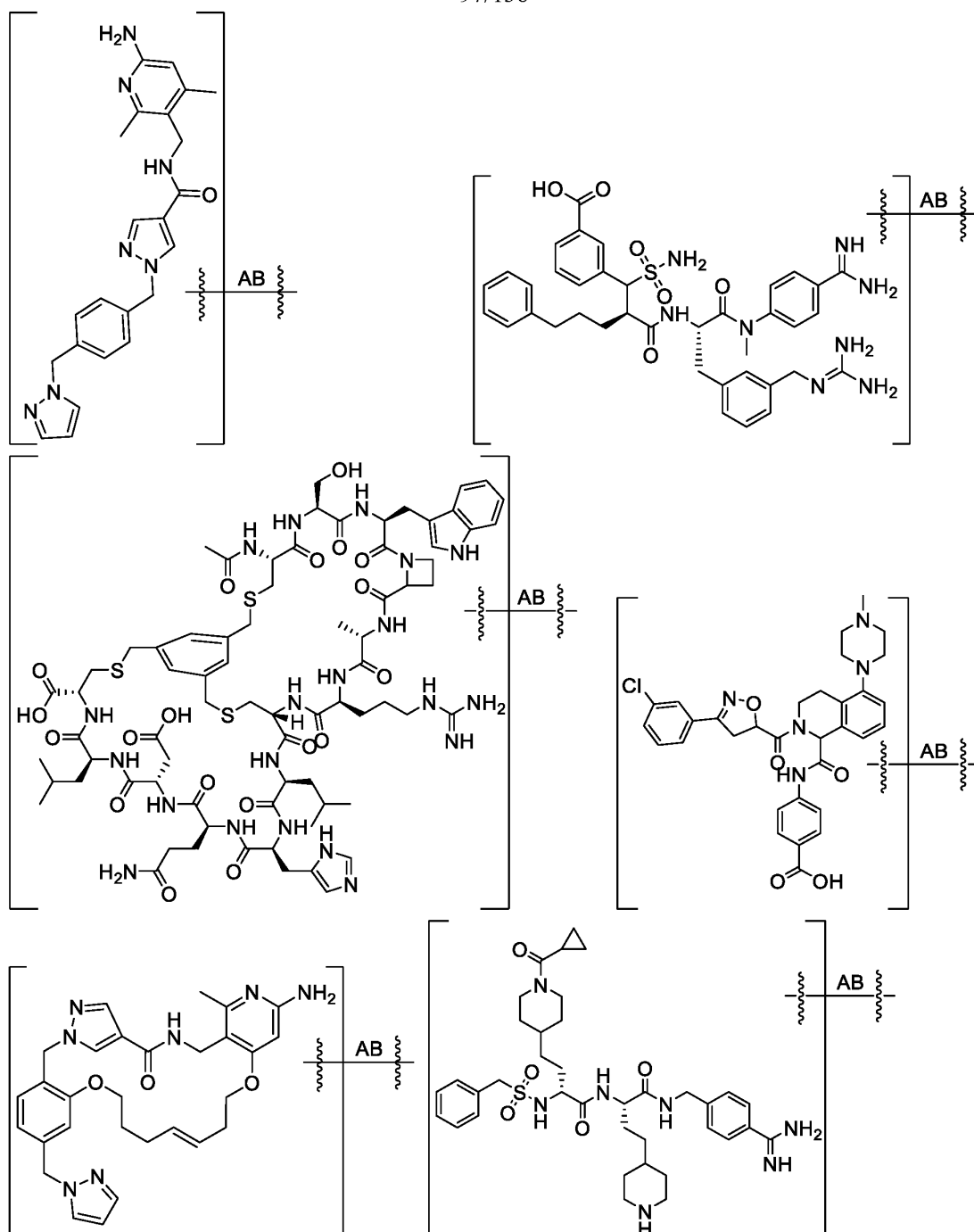


FIG. 1JJJJ

FIG. 1KKKKK

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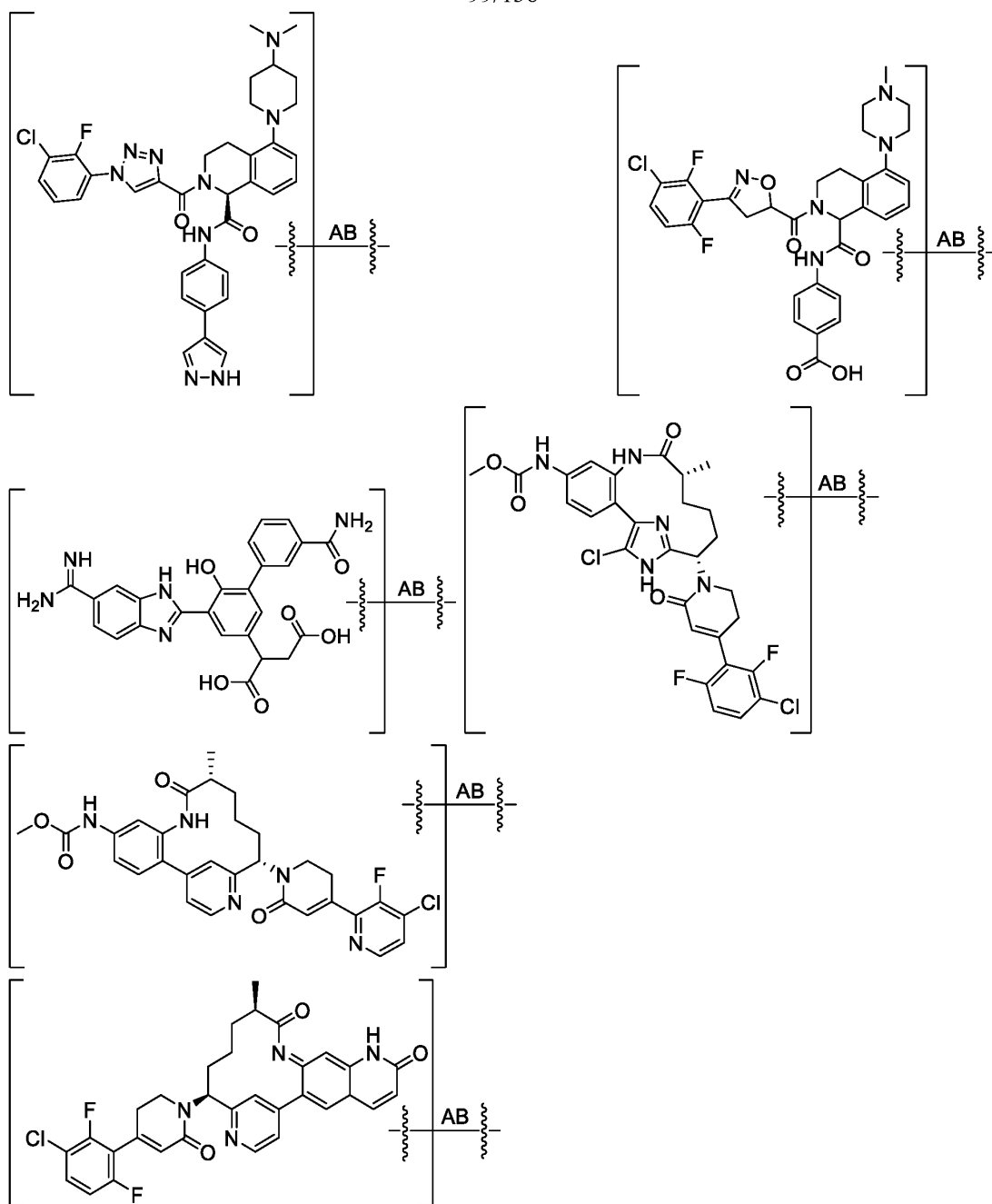


FIG. 1LLLLL

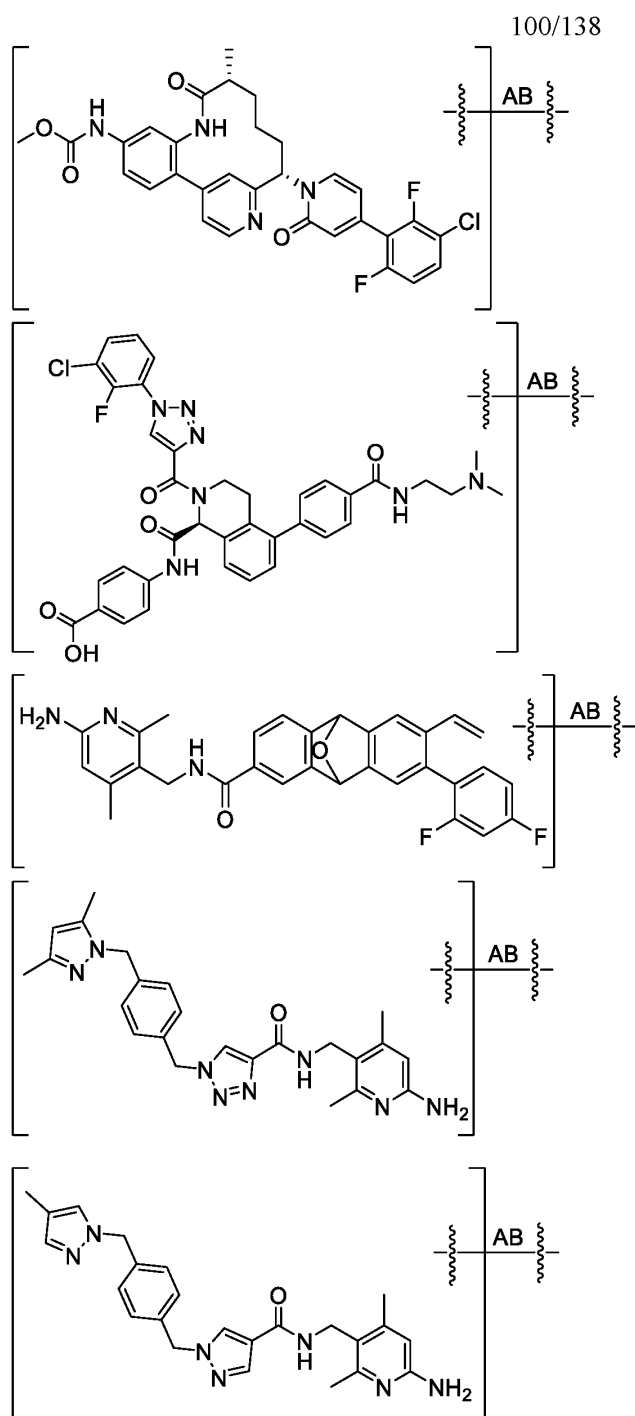


FIG. 1MMMMM

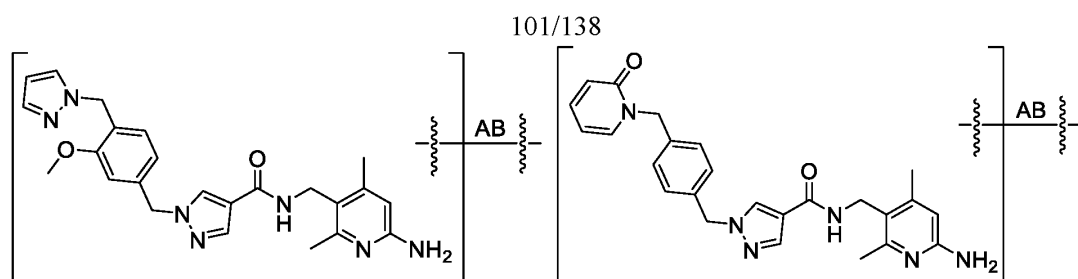


FIG. 1NNNNN

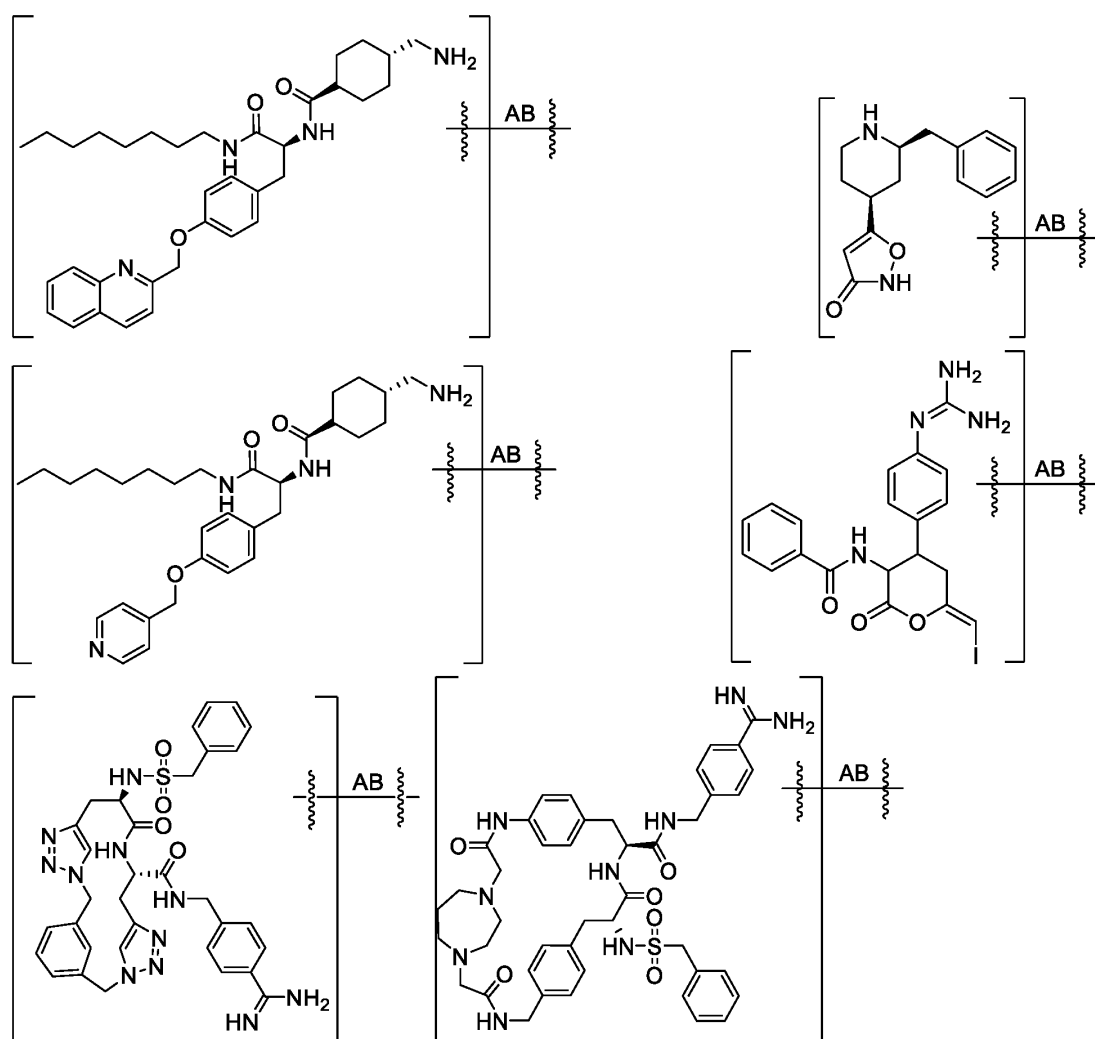


FIG. 100000

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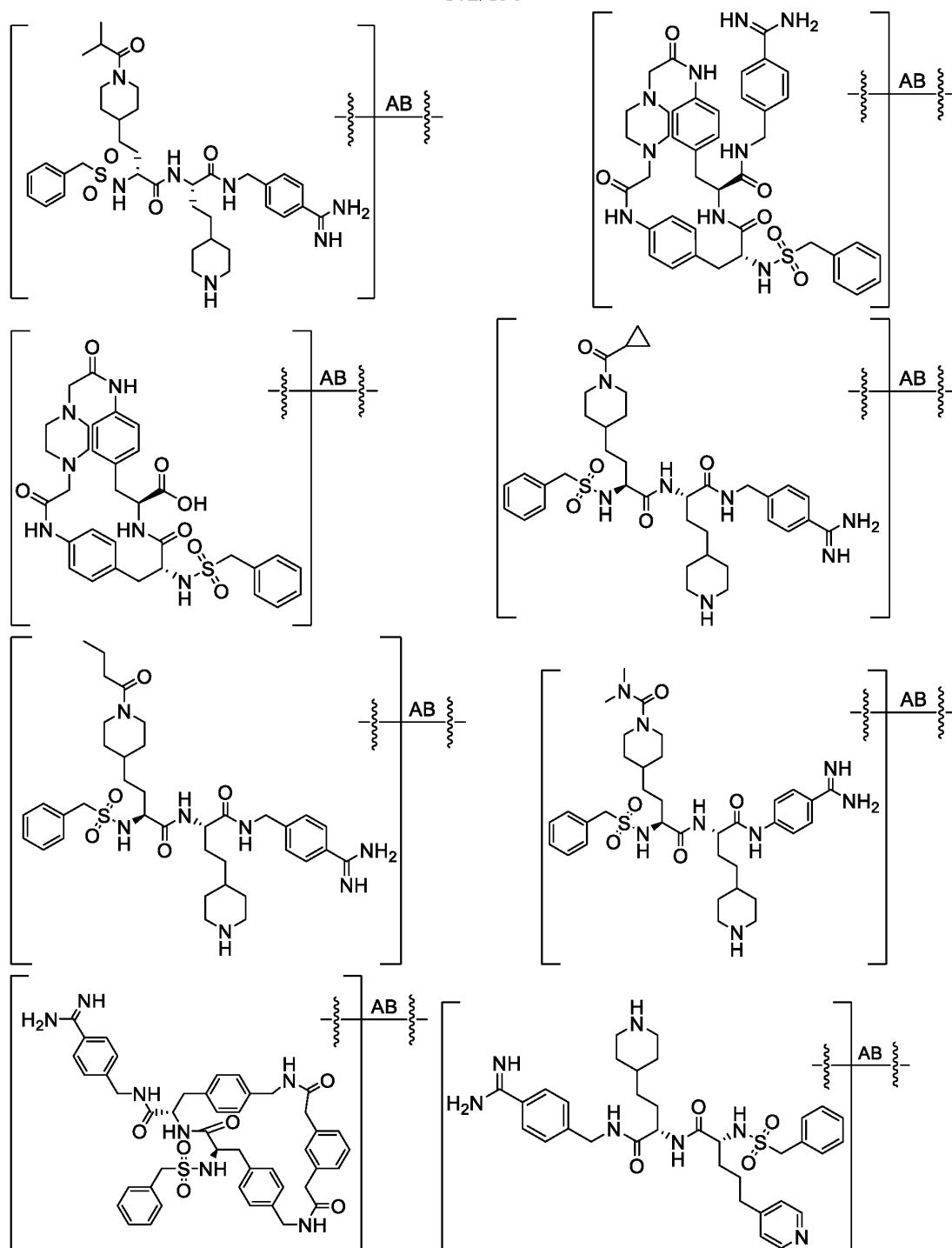


FIG. 1PPPPP

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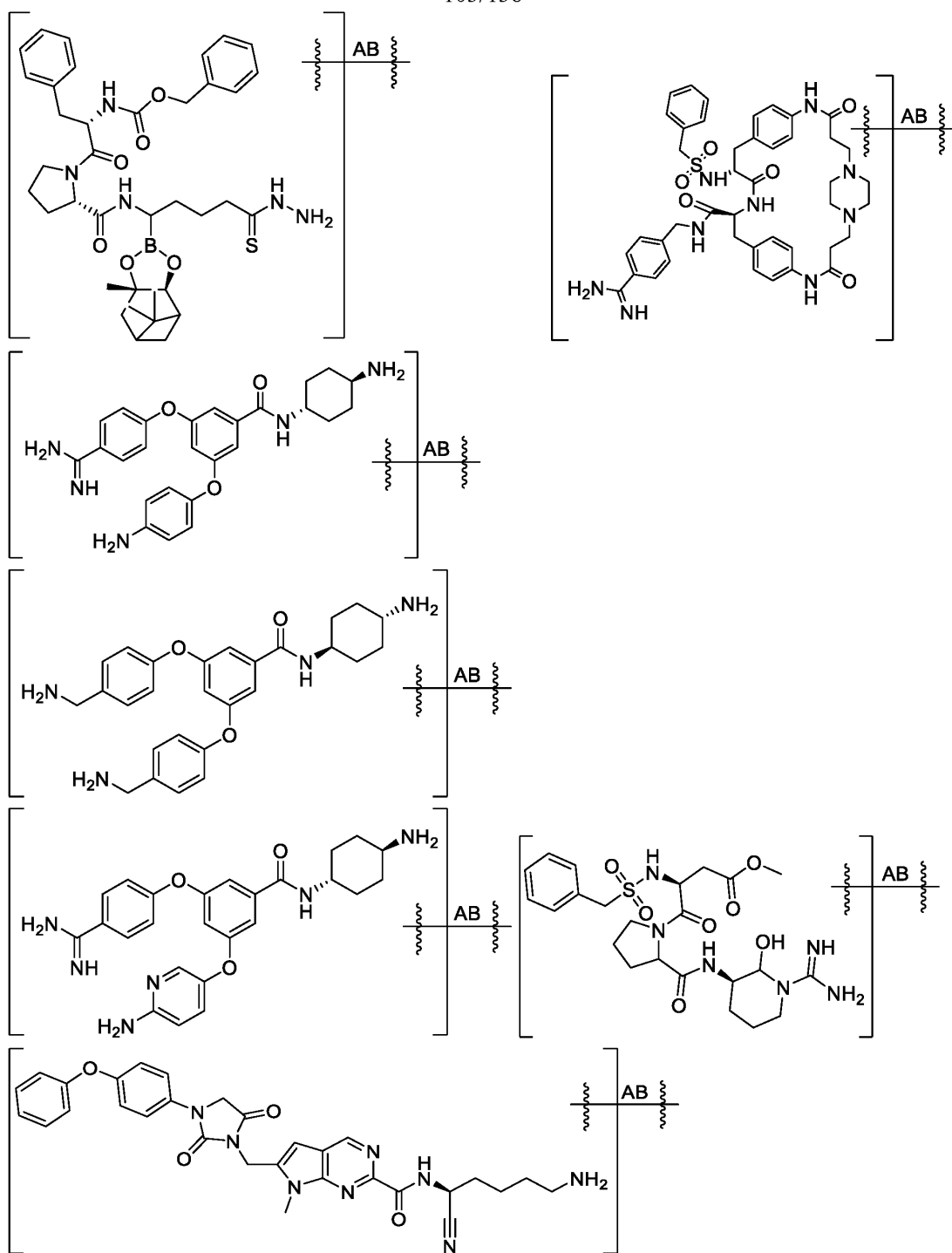


FIG. 1Q, 1Q, 1Q, 1Q, 1Q

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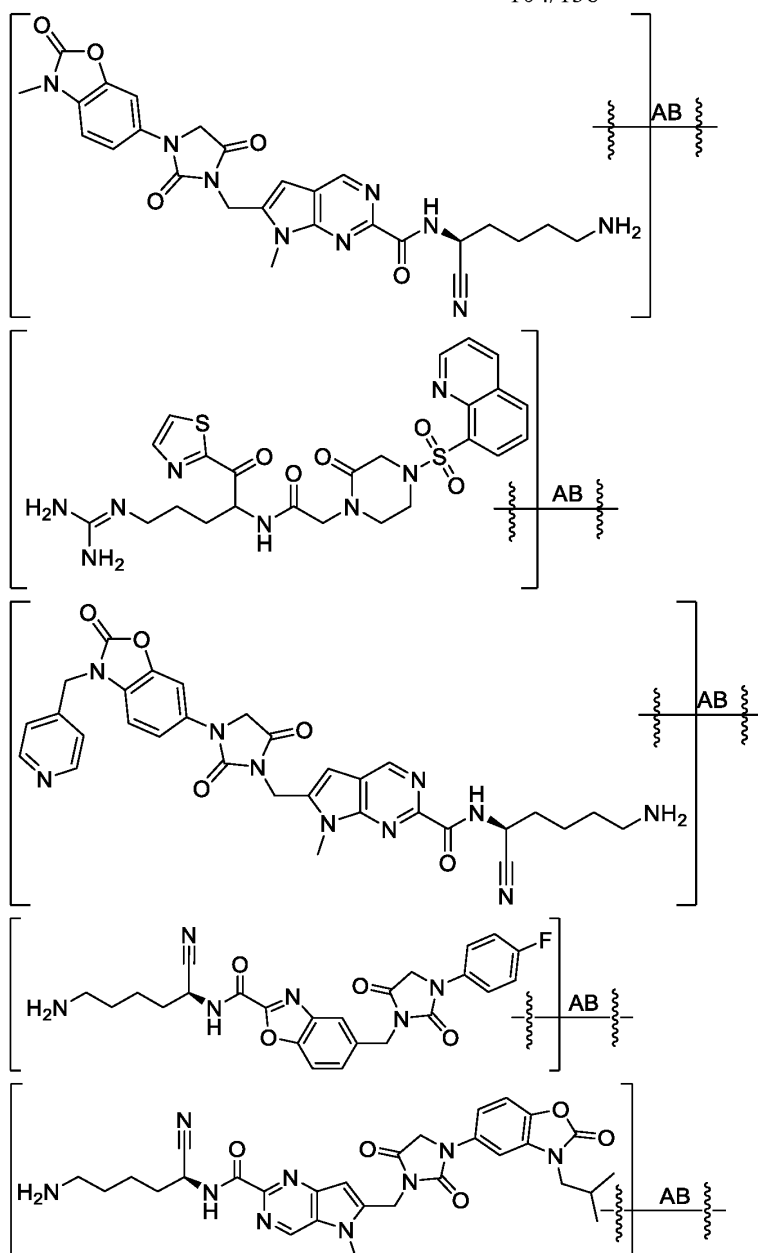


FIG. 1RRRRR

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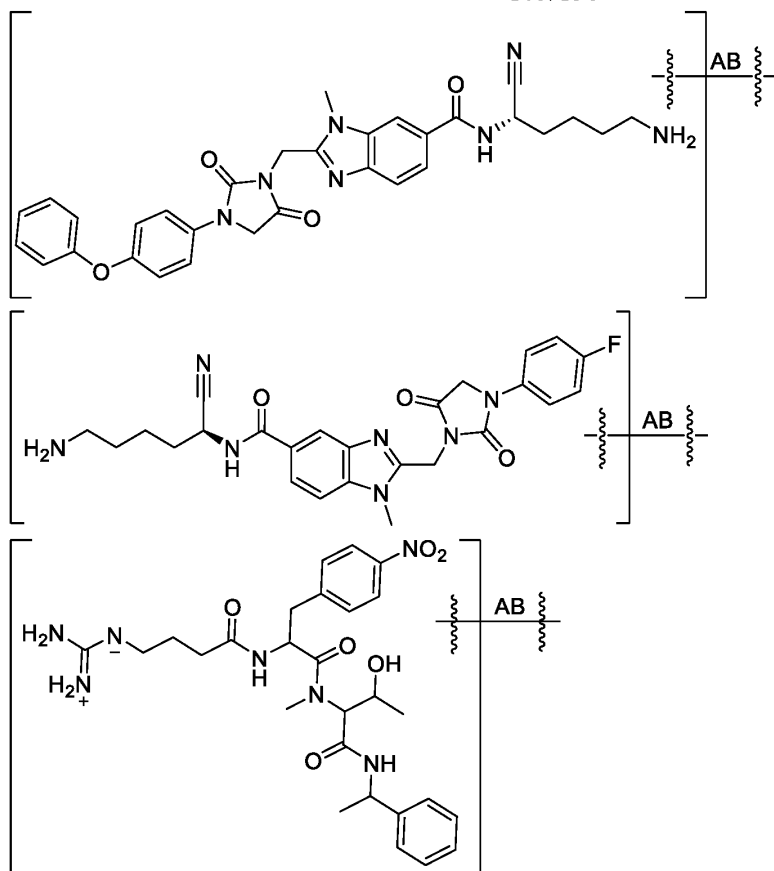


FIG. 1SSSSS

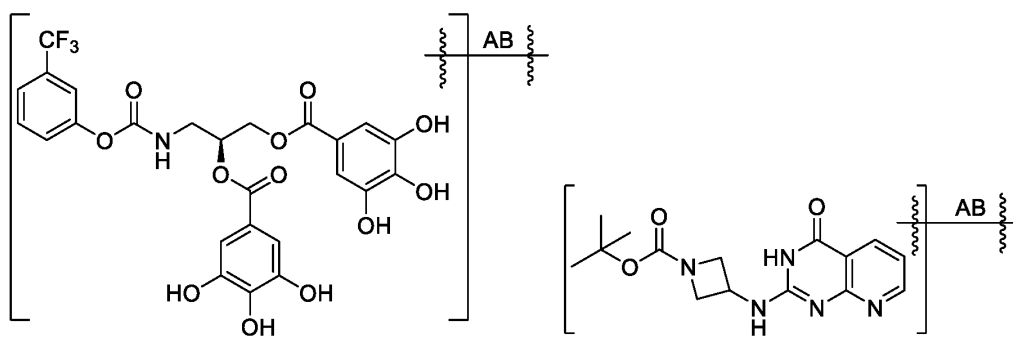


FIG. 1TTTTT

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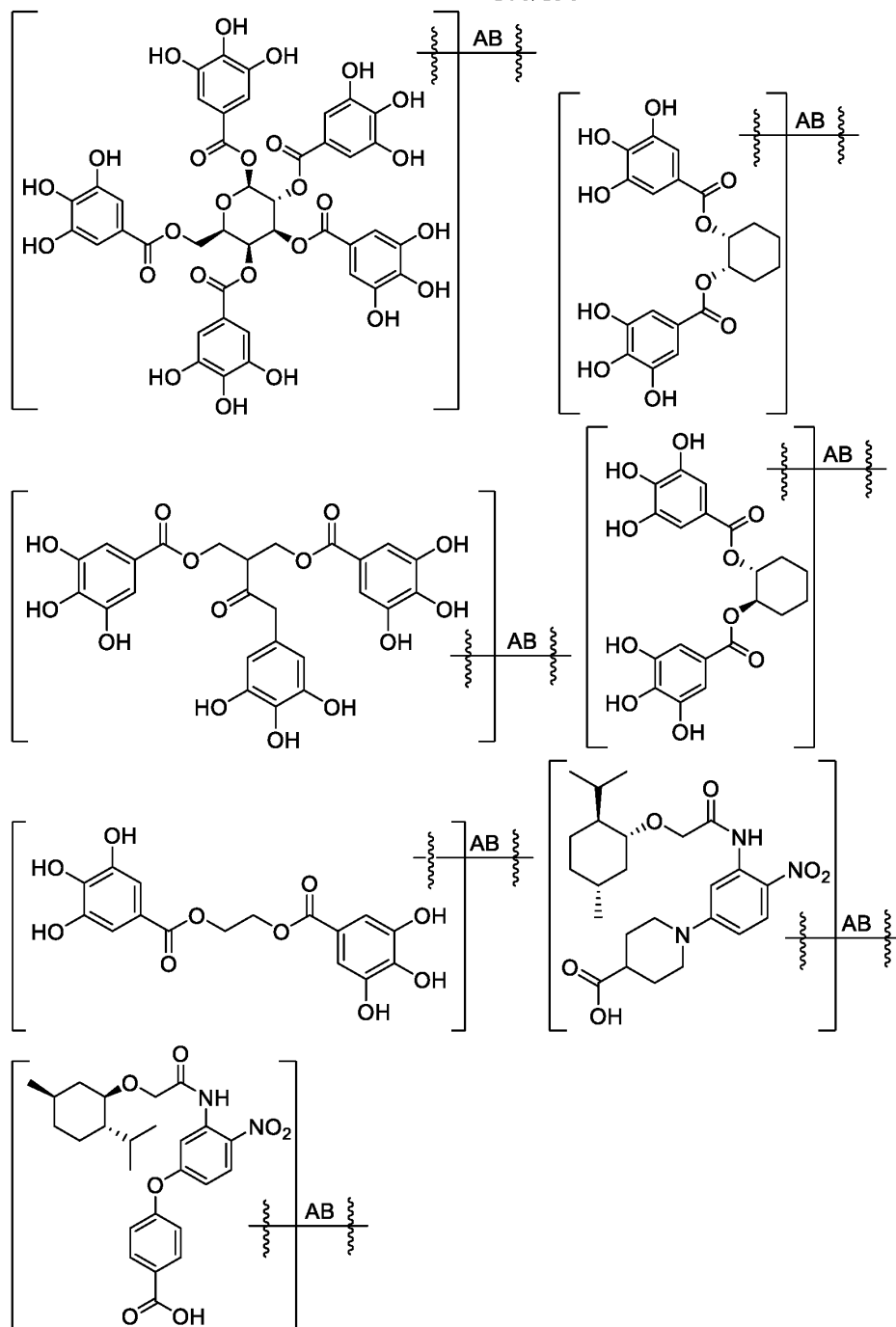


FIG. 1UUUUU

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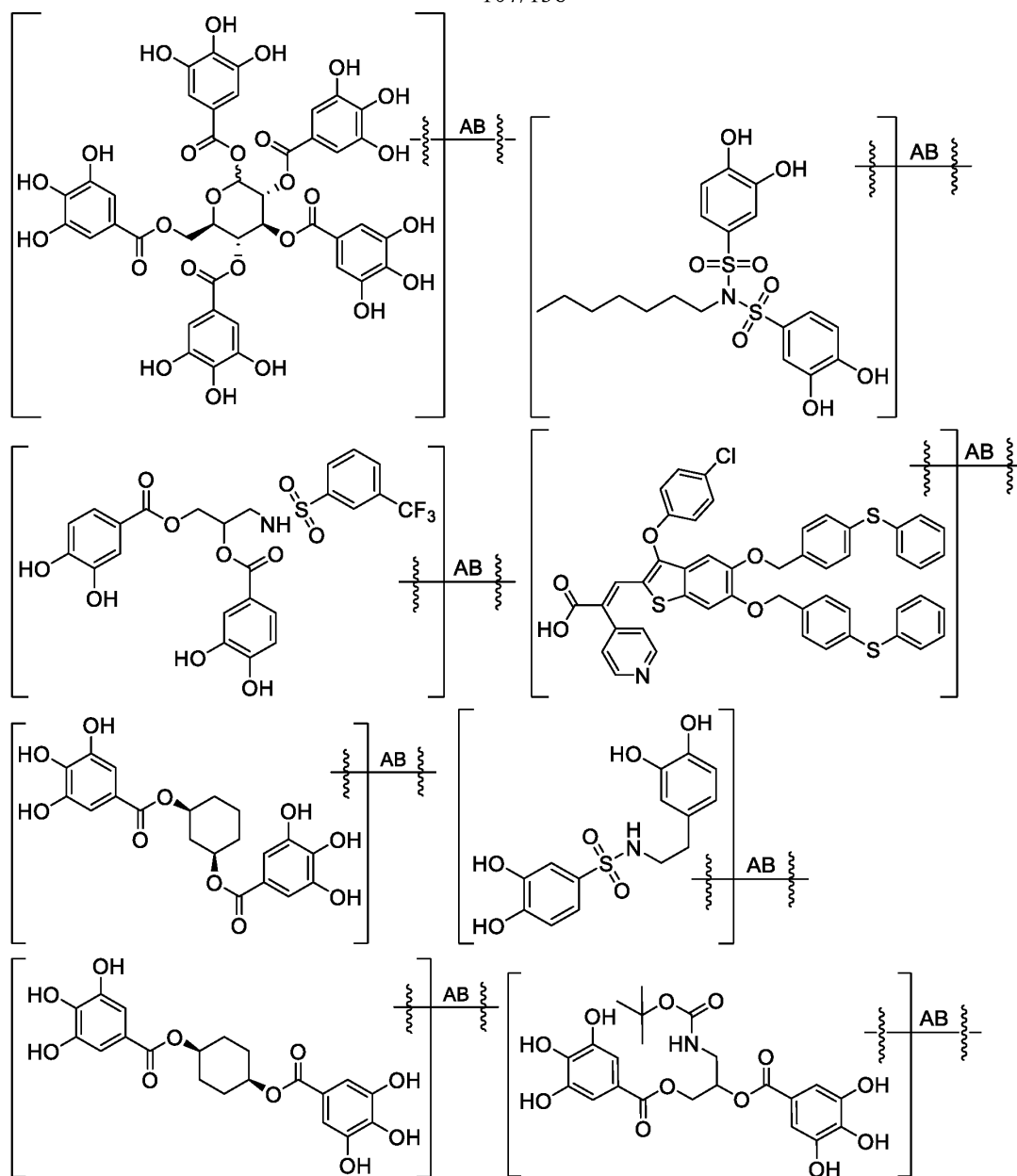


FIG. 1VVVVV

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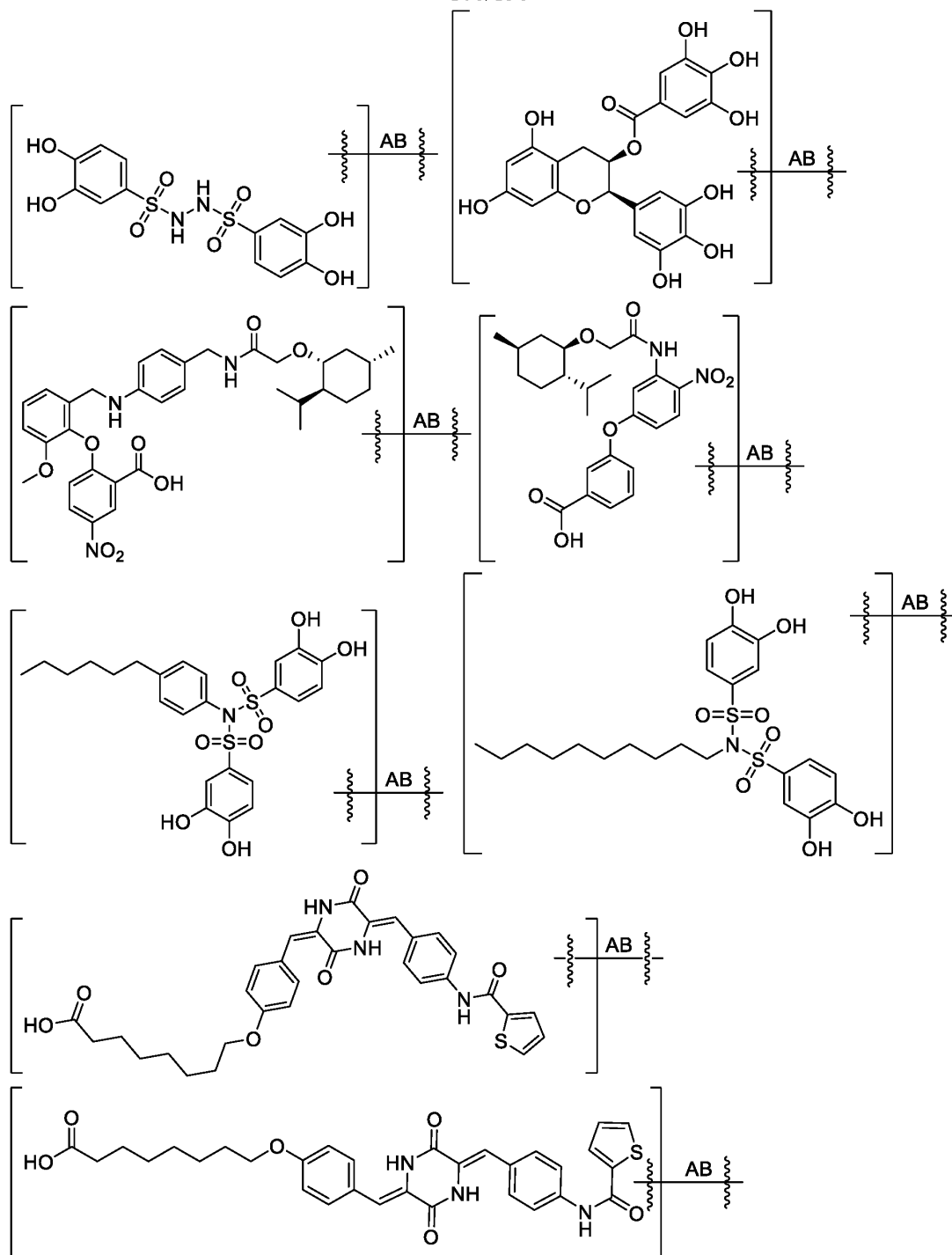


FIG. 1WWWWW

The figure displays the chemical structures of two polymers, P246TPA and P246TPMA, which are poly(2,4,6-trihydroxyphenyl acrylate) and poly(2,4,6-trihydroxyphenyl methacrylate), respectively. Both structures are shown within brackets, indicating they are repeating units of a polymer chain. The structures are complex, featuring a central sugar-like ring (a 1,3,5-trisubstituted benzene ring) connected to three 2,4,6-trihydroxyphenyl groups via ester linkages. The repeating unit is labeled 'AB' with wavy lines indicating the polymer chain extension.

FIG. 1XXXXX

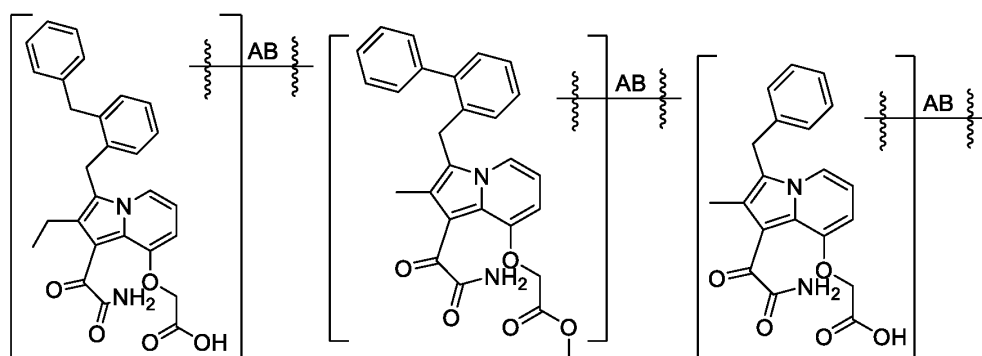


FIG. 1YYYYYY

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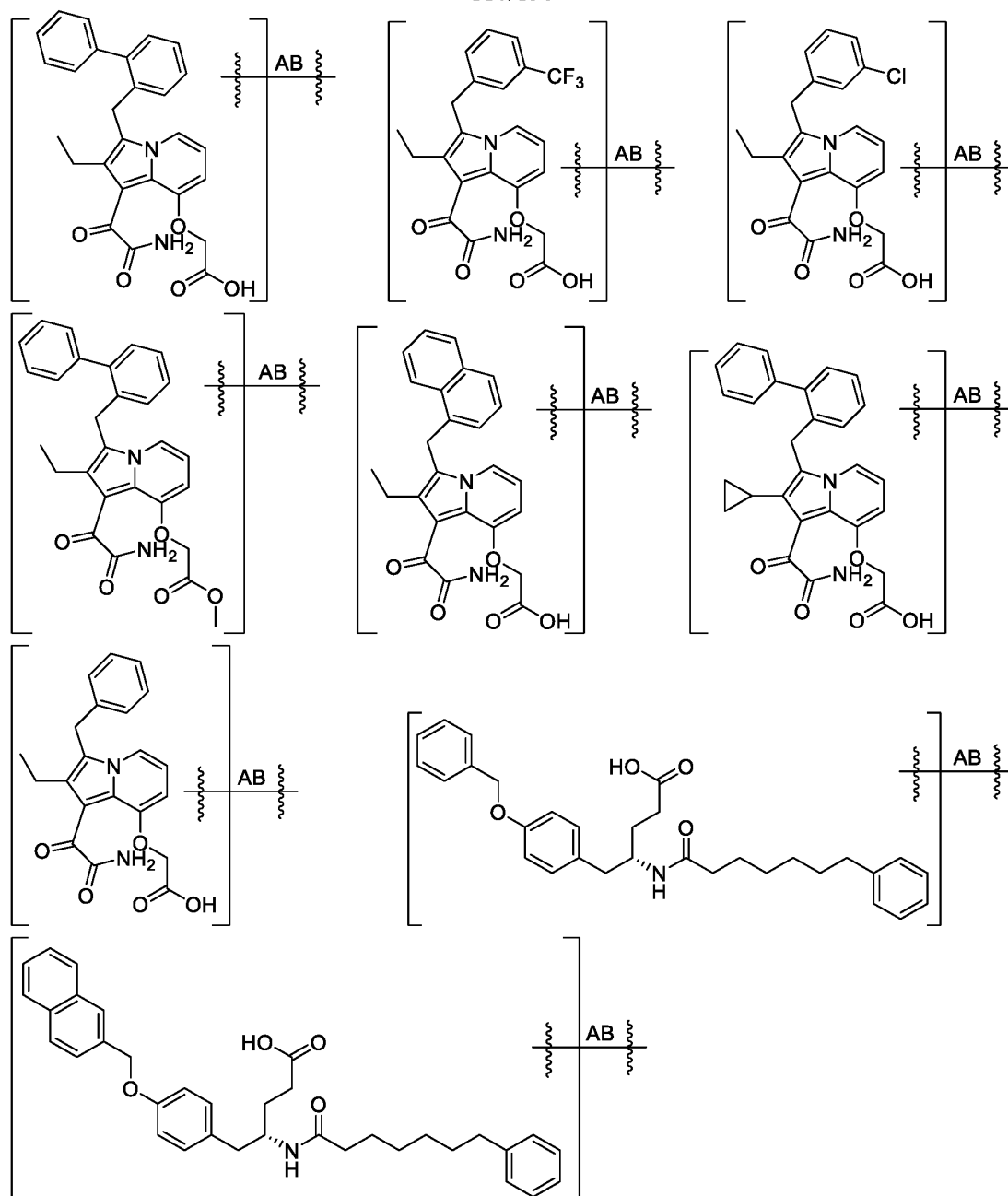


FIG. 1ZZZZZ

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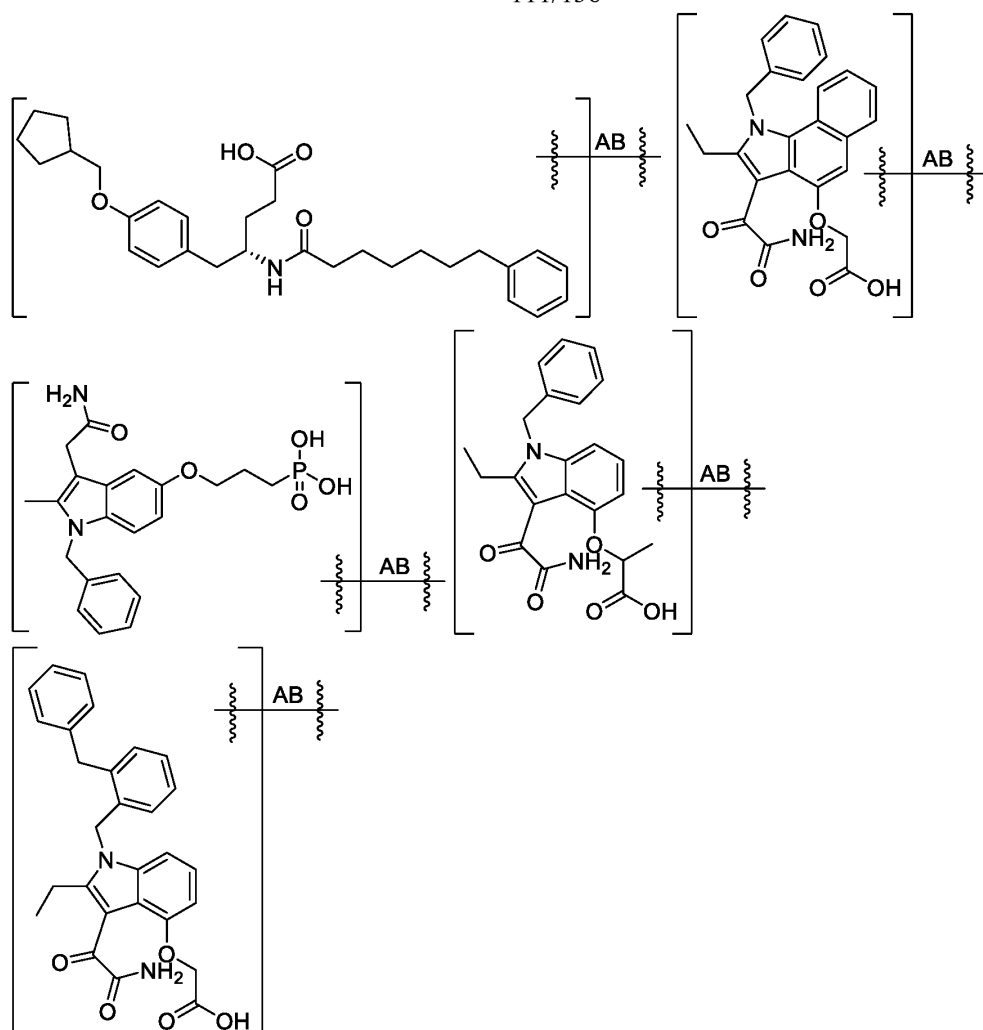


FIG. 1AAAAAA

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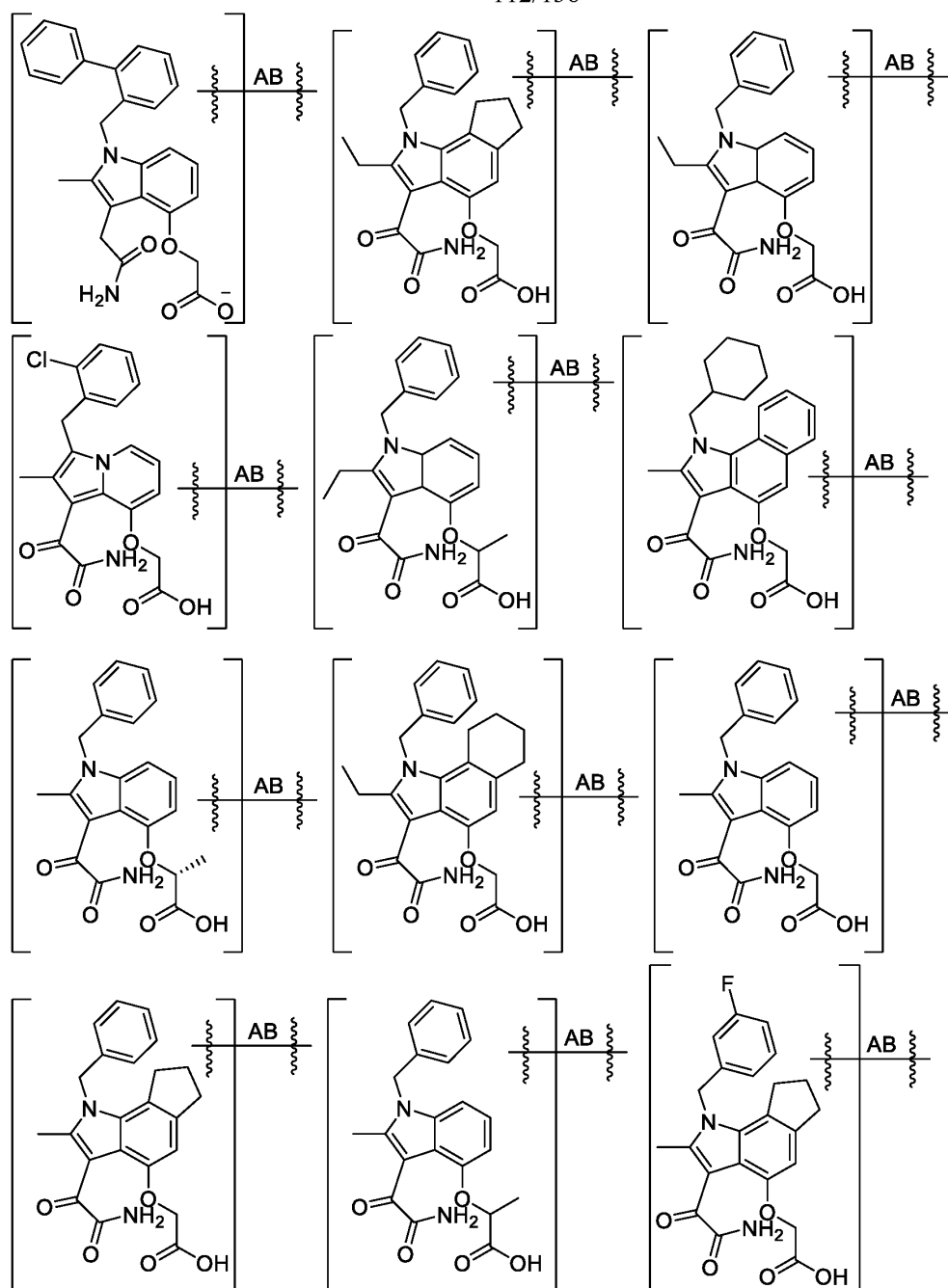


FIG. 1BBBBBB

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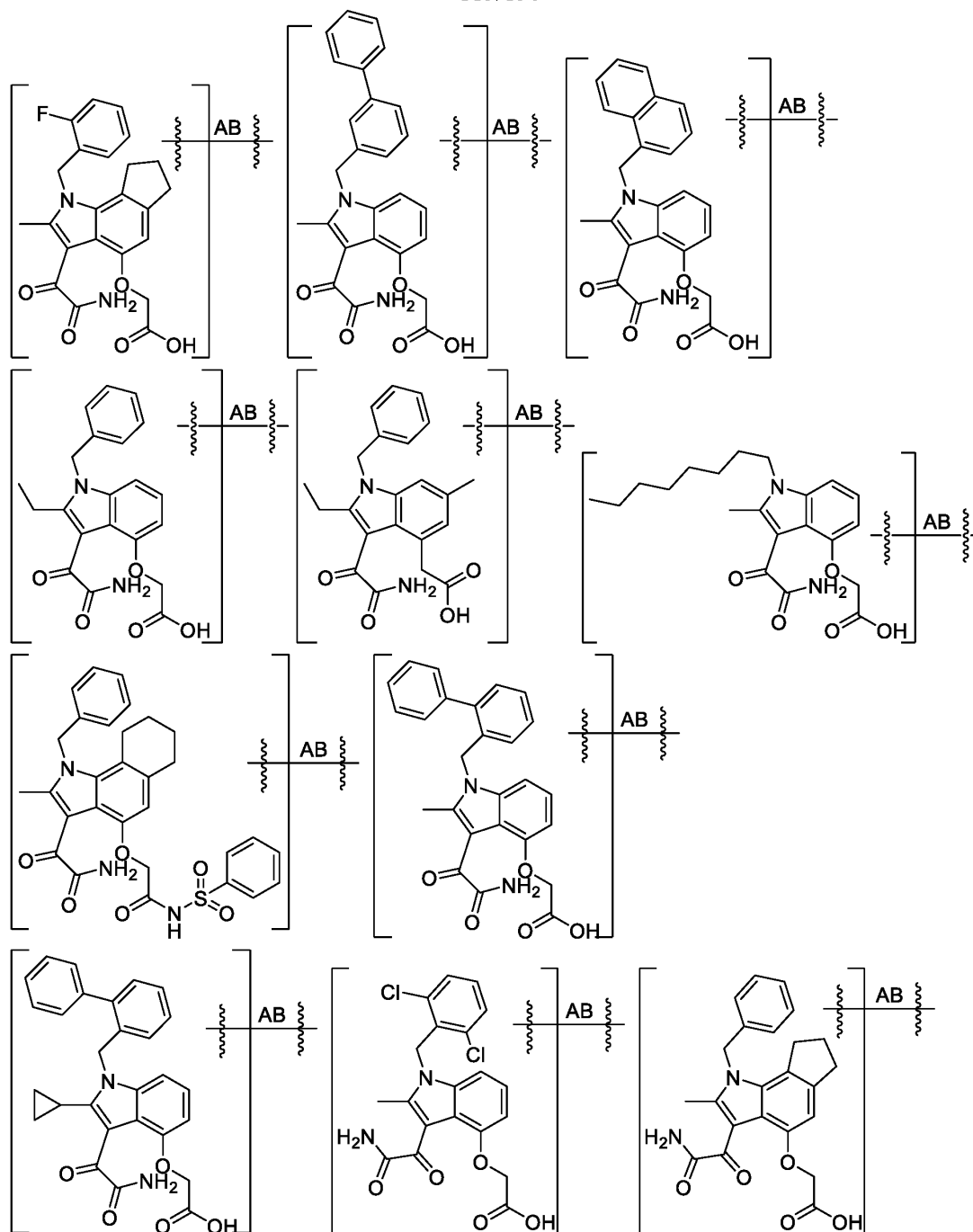


FIG. 1CCCCC

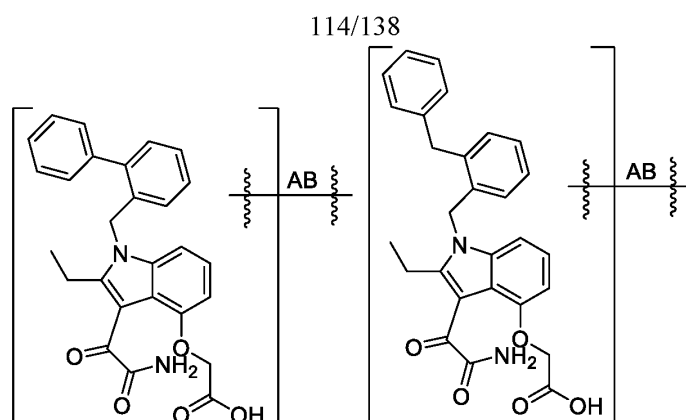


FIG. 1DDDDDD

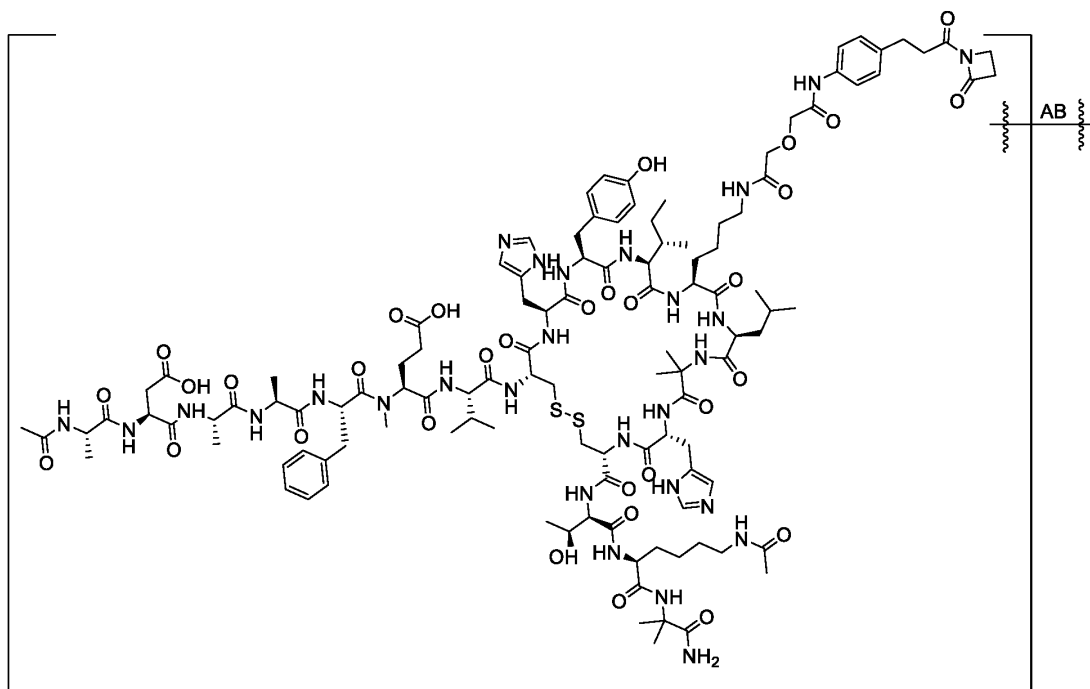


FIG. 1EEEEEE

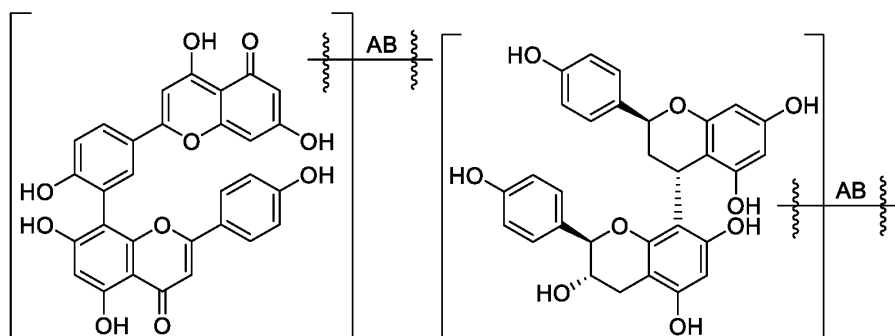
[illegible]

FIG. 1FFFFF

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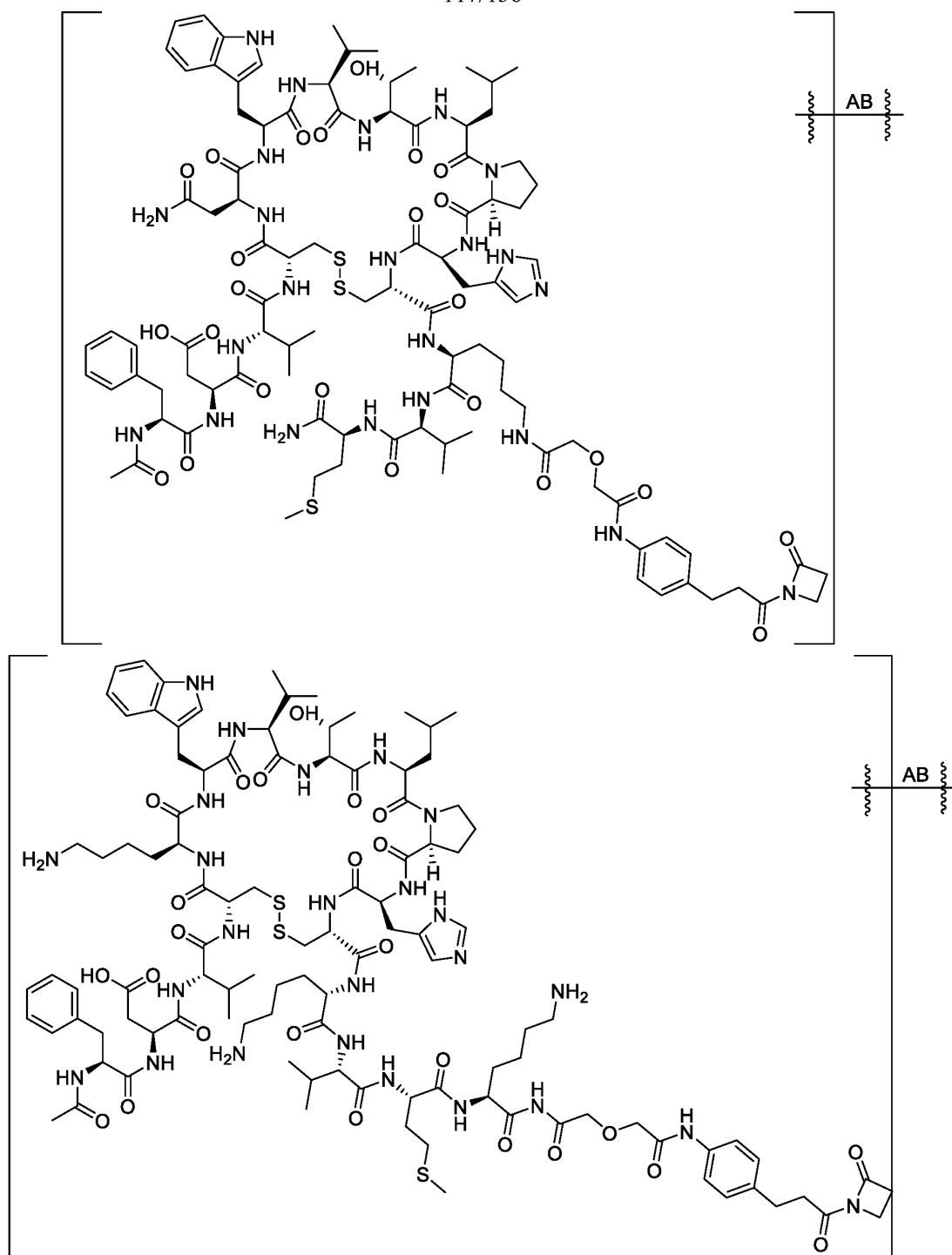


FIG. 1HHHHHHH

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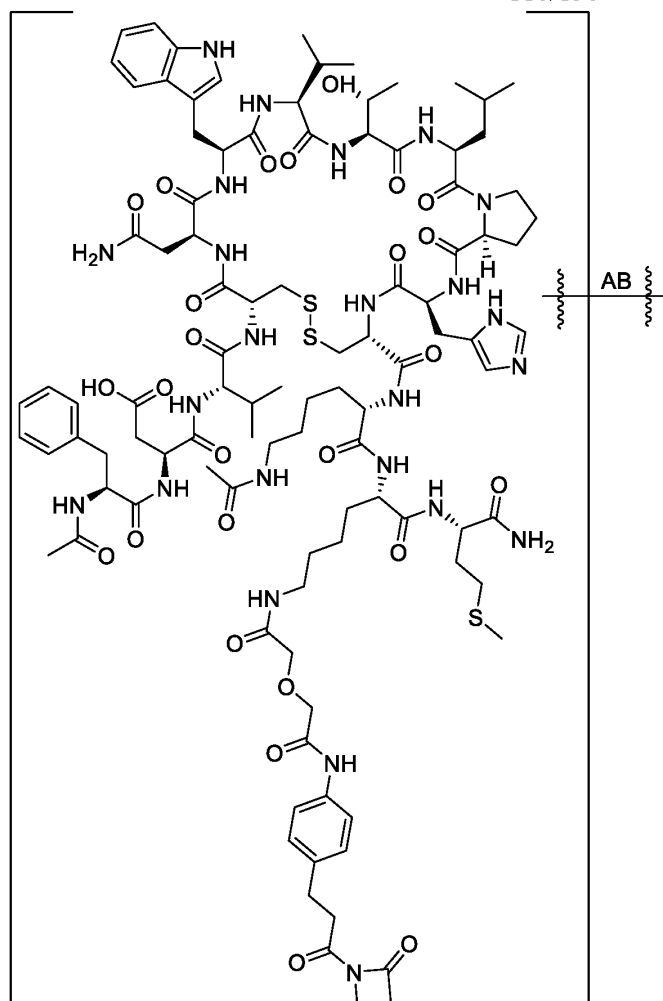


FIG. 1IIIIII

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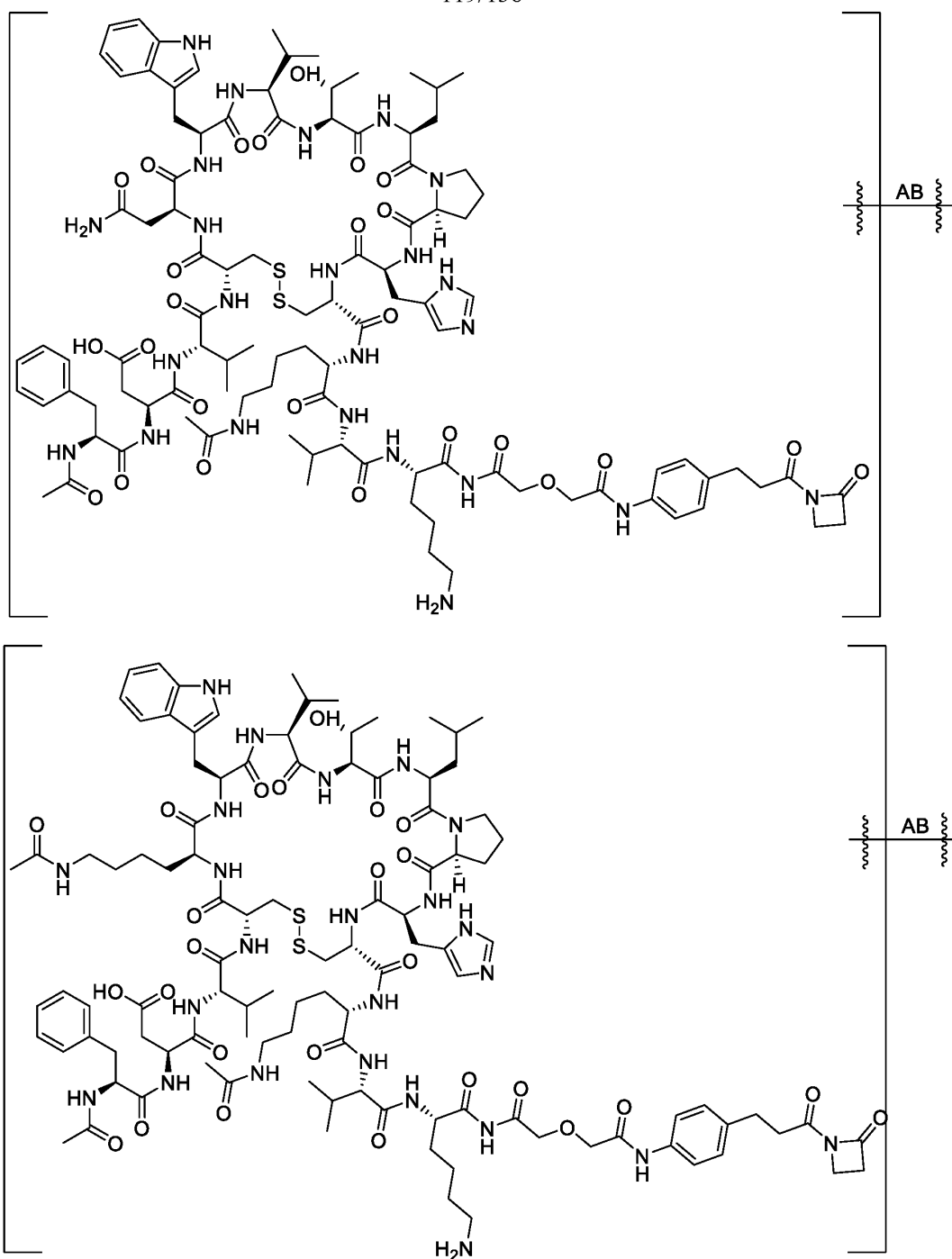


FIG. 1JJJJJ

[illegible]

FIG. 1KKKKK

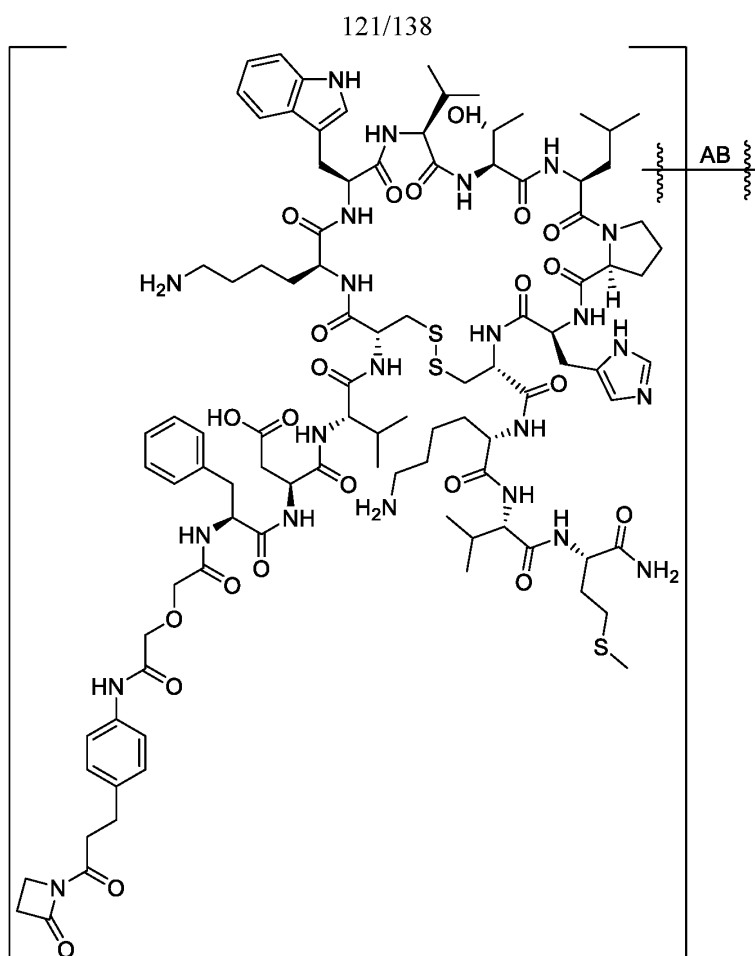


FIG. 1LLLLLL

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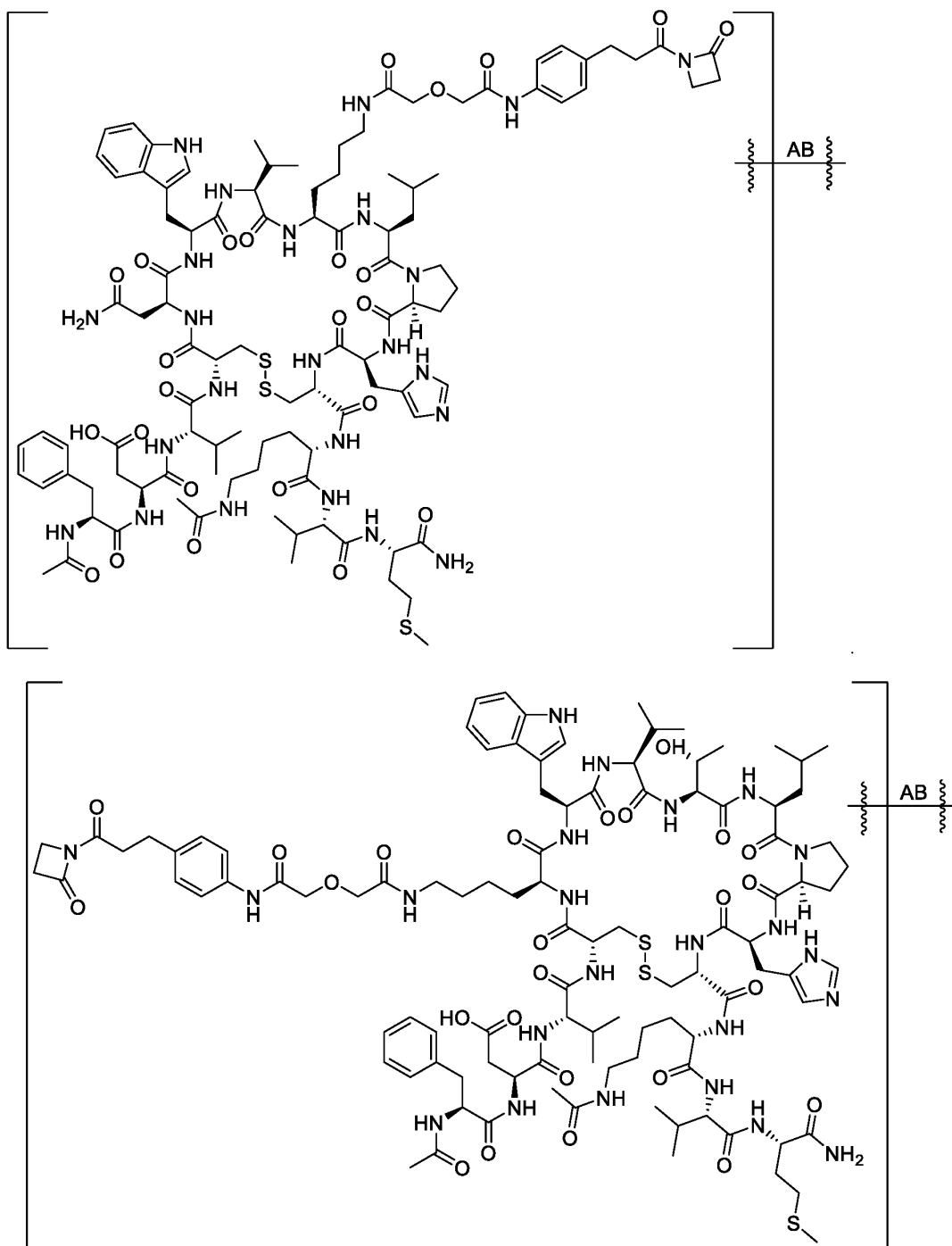


FIG. 1MMMMMM

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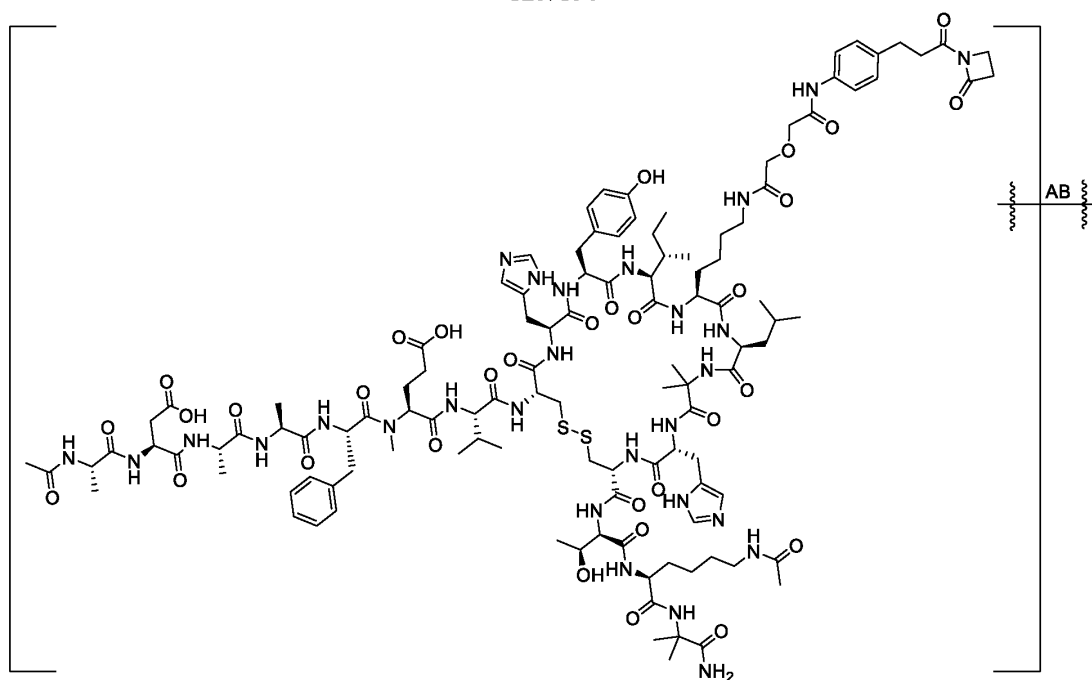


FIG. 1NNNNNN

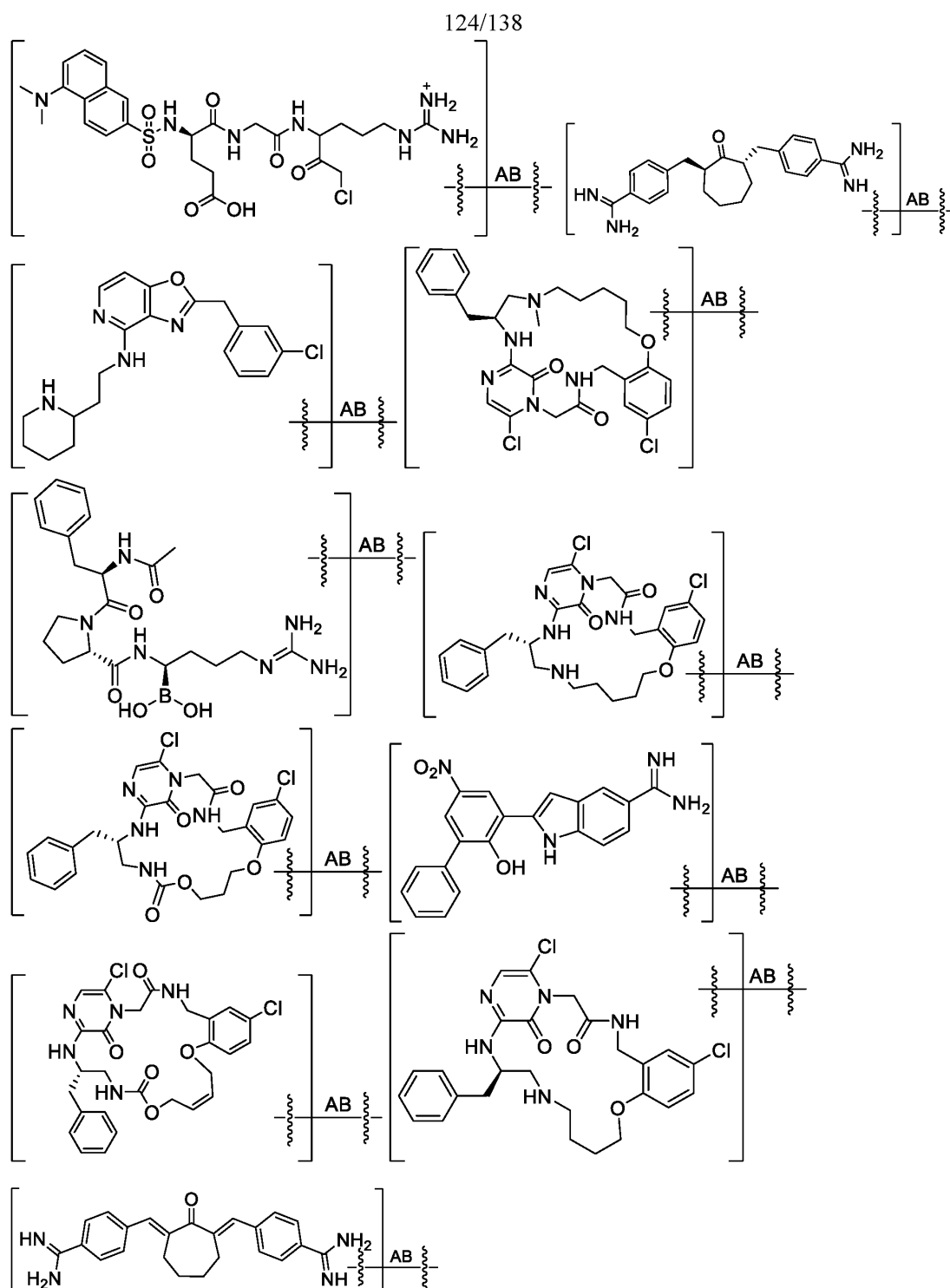


FIG. 1000000

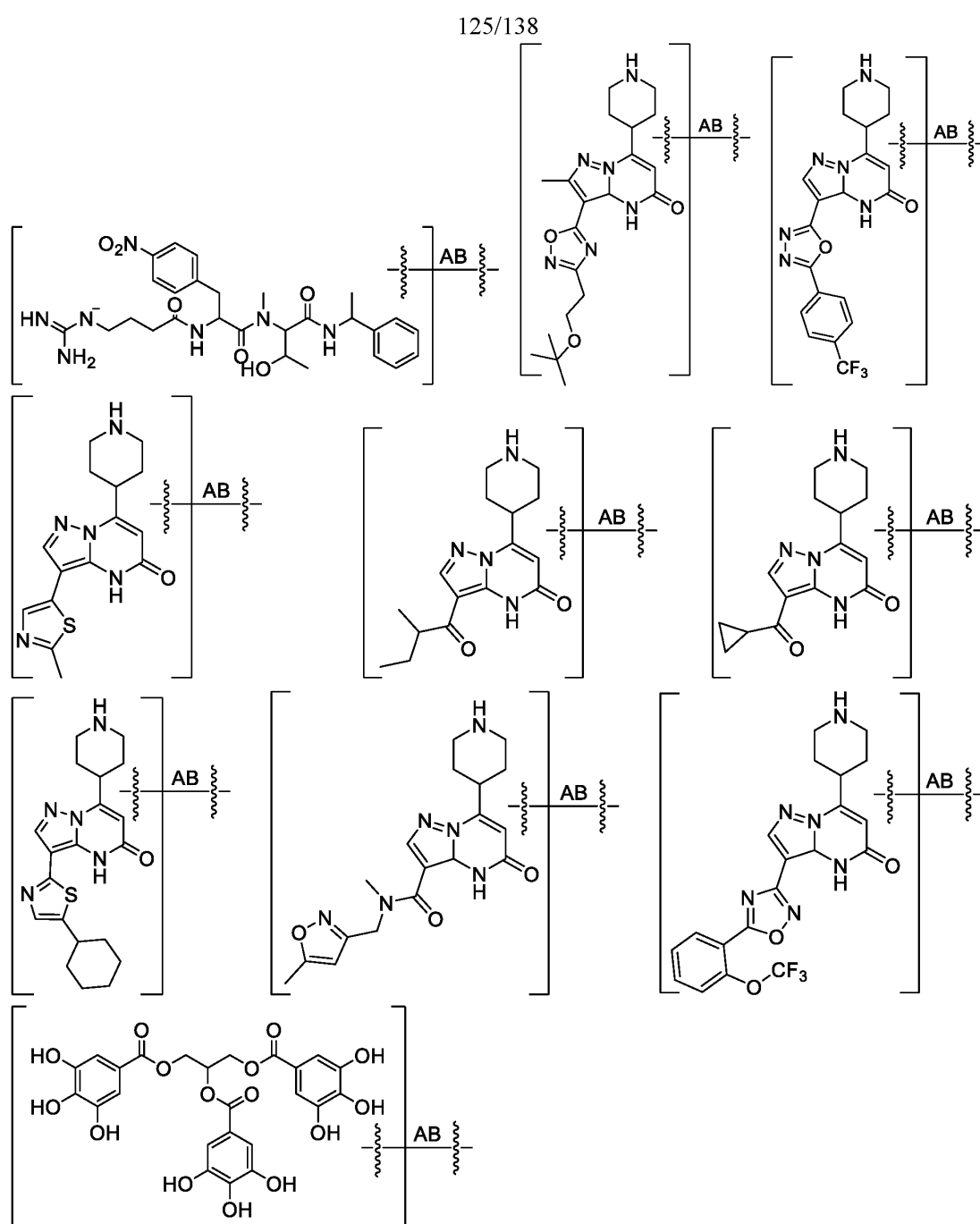


FIG. 1PPPPPP

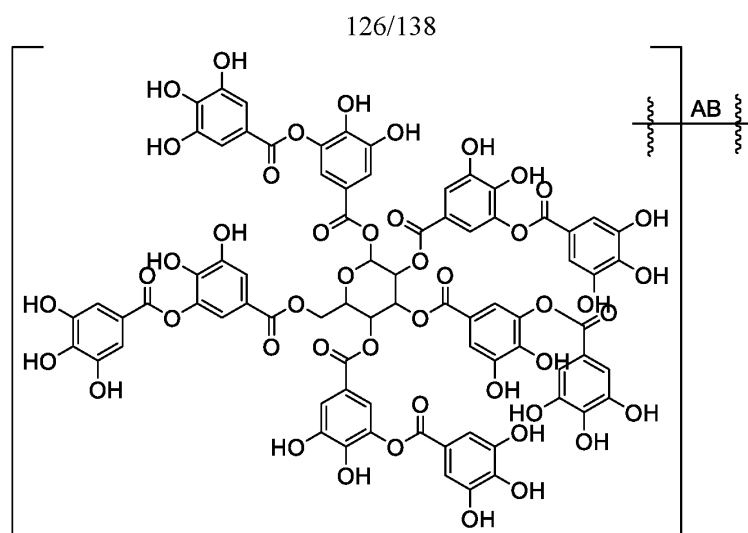


FIG. 1QQQQQQ

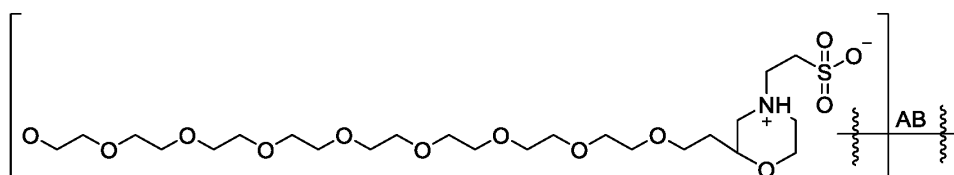


FIG. 1RRRRRR

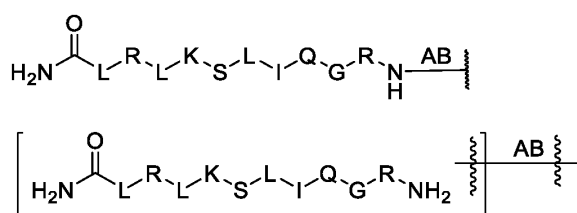


FIG. 1SSSSSS

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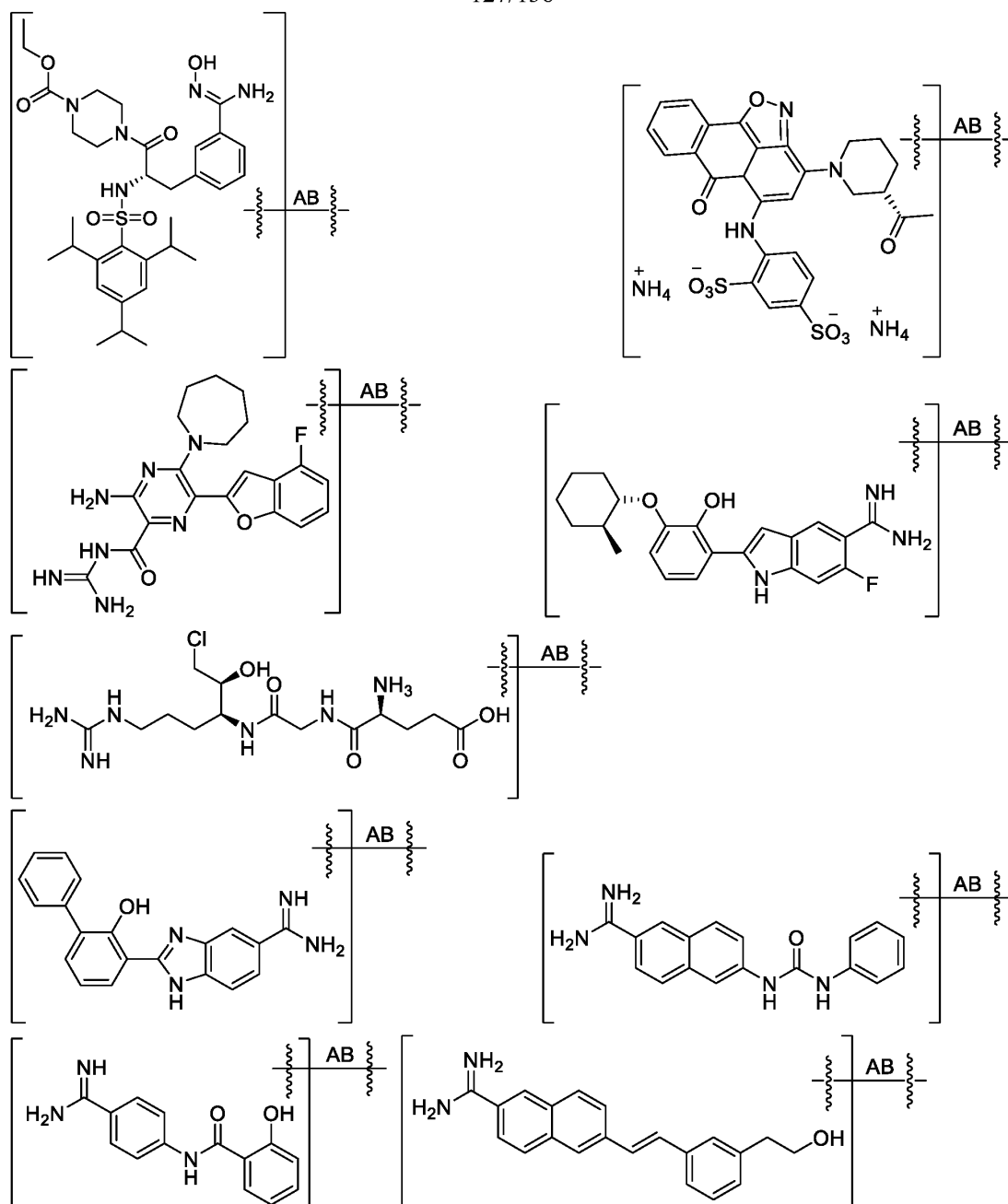


FIG. 1TTTTTT

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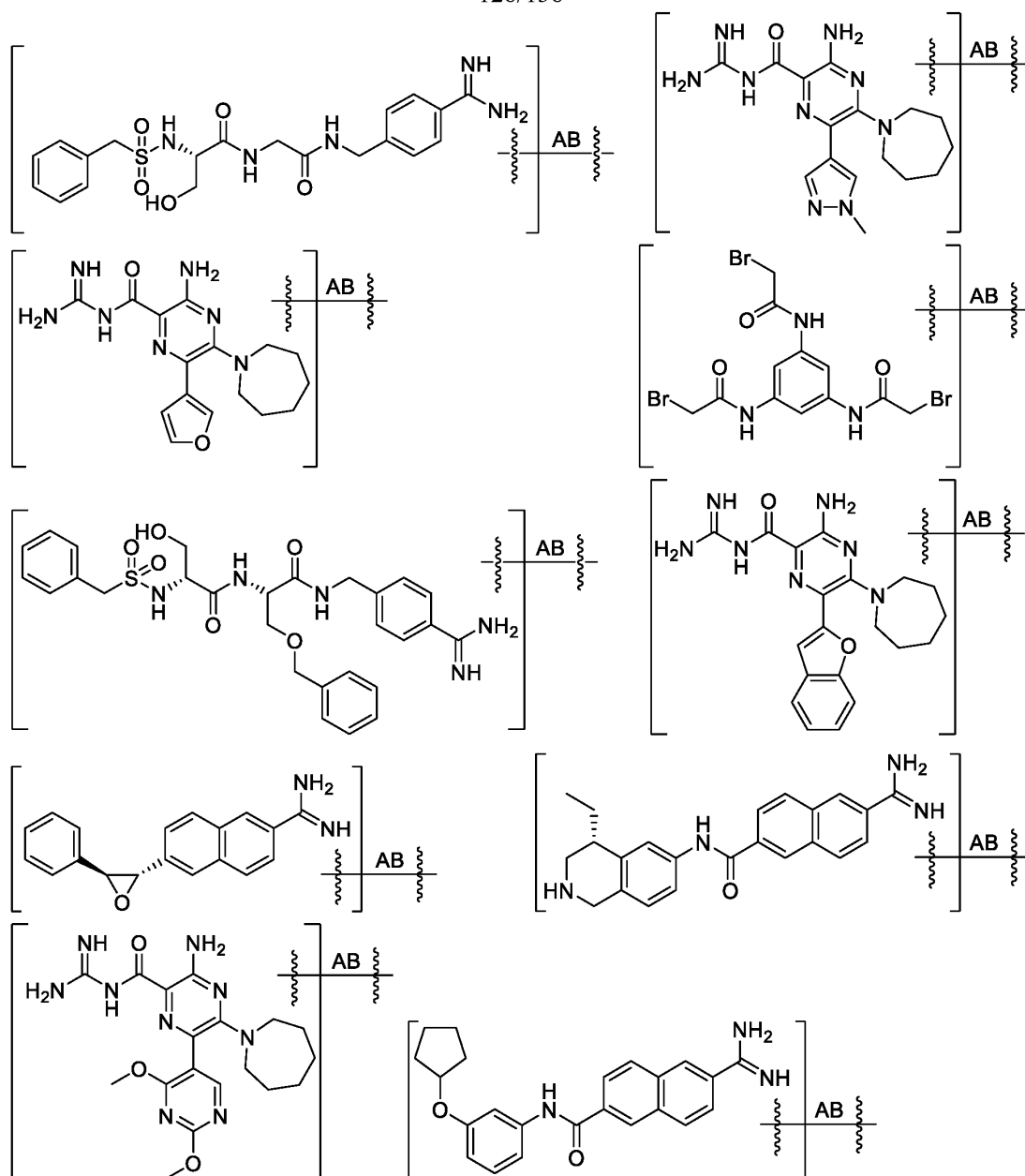


FIG. 1UUUUUU

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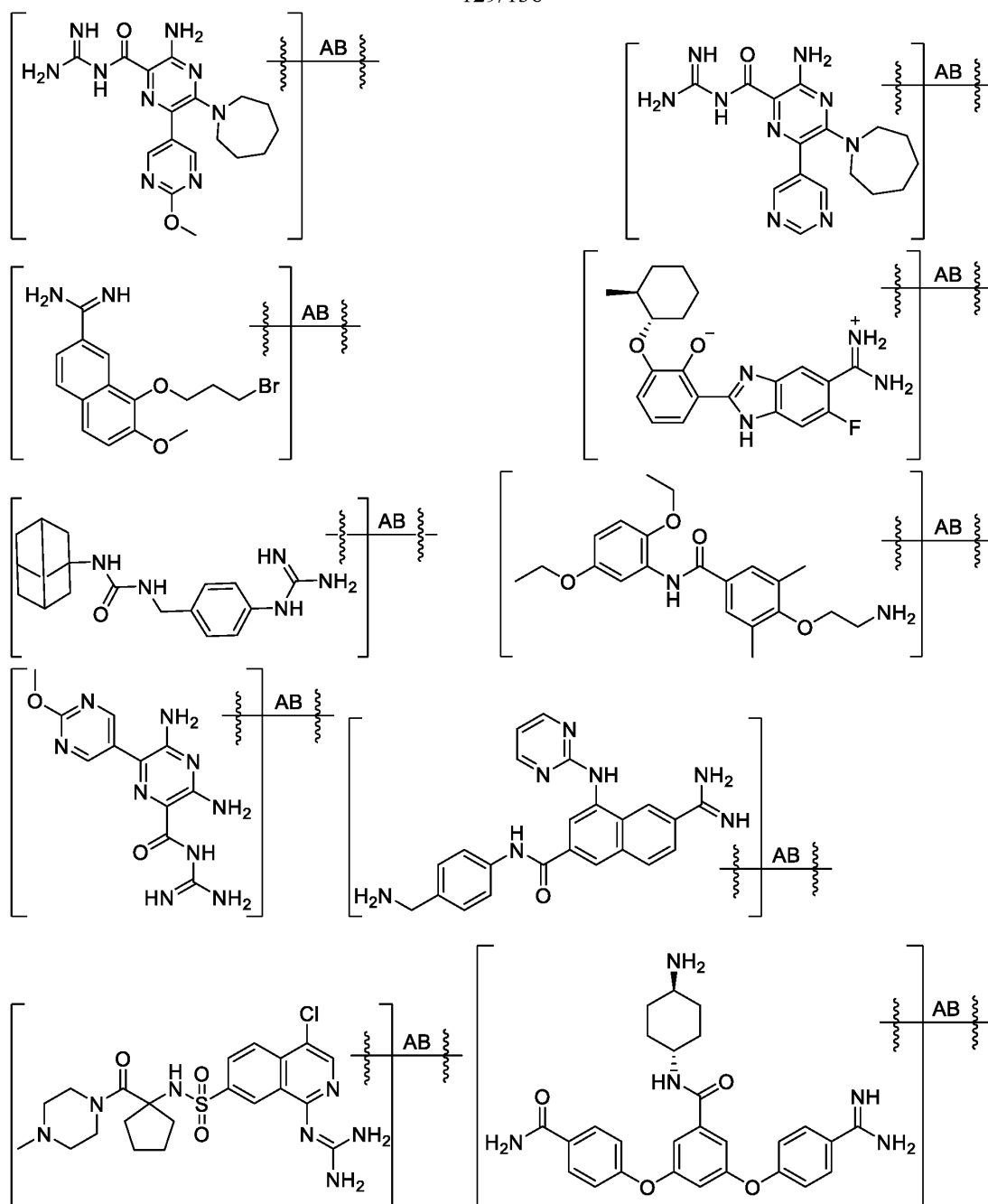


FIG. 1VVVVVV

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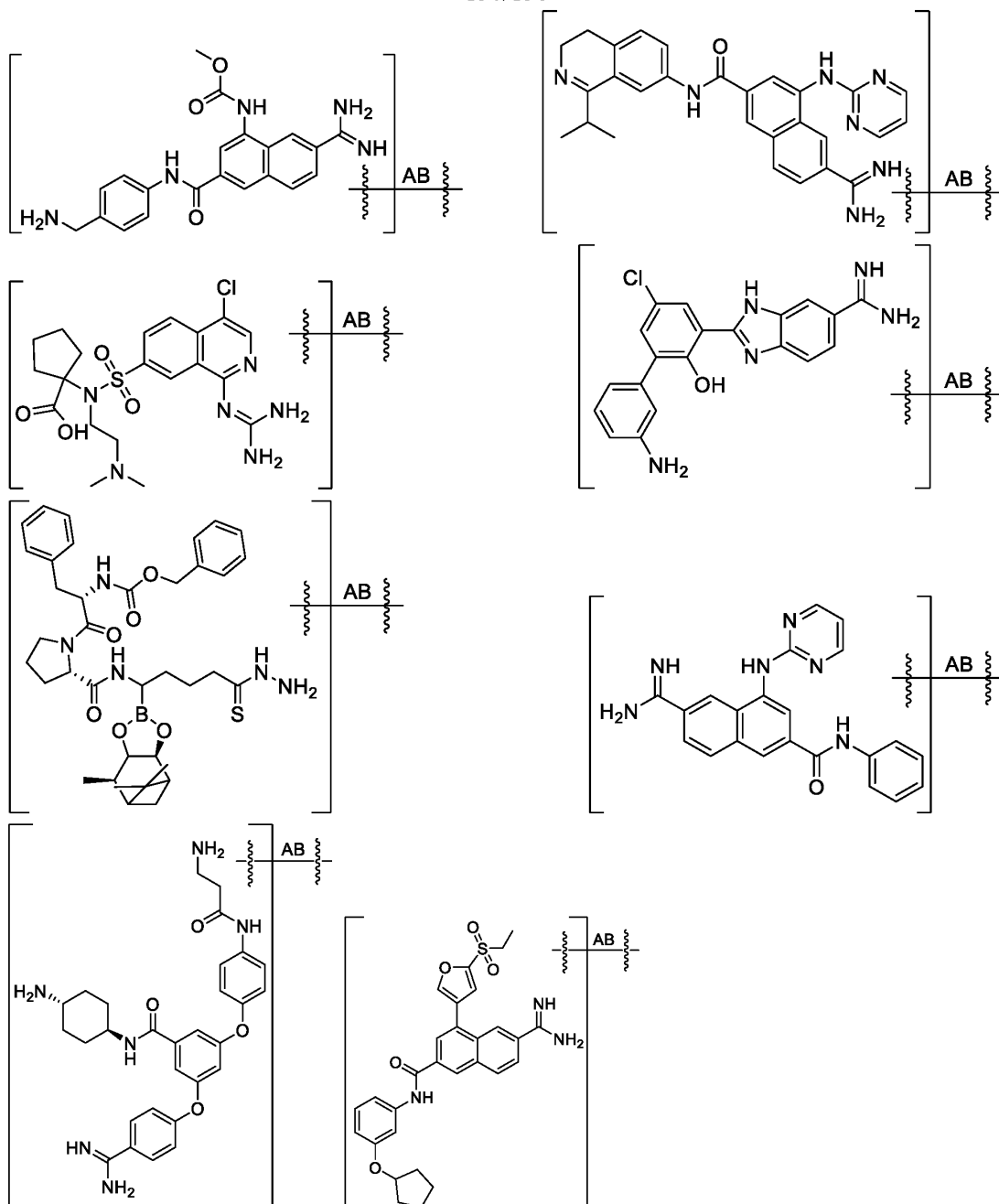


FIG. 1 WWWWW

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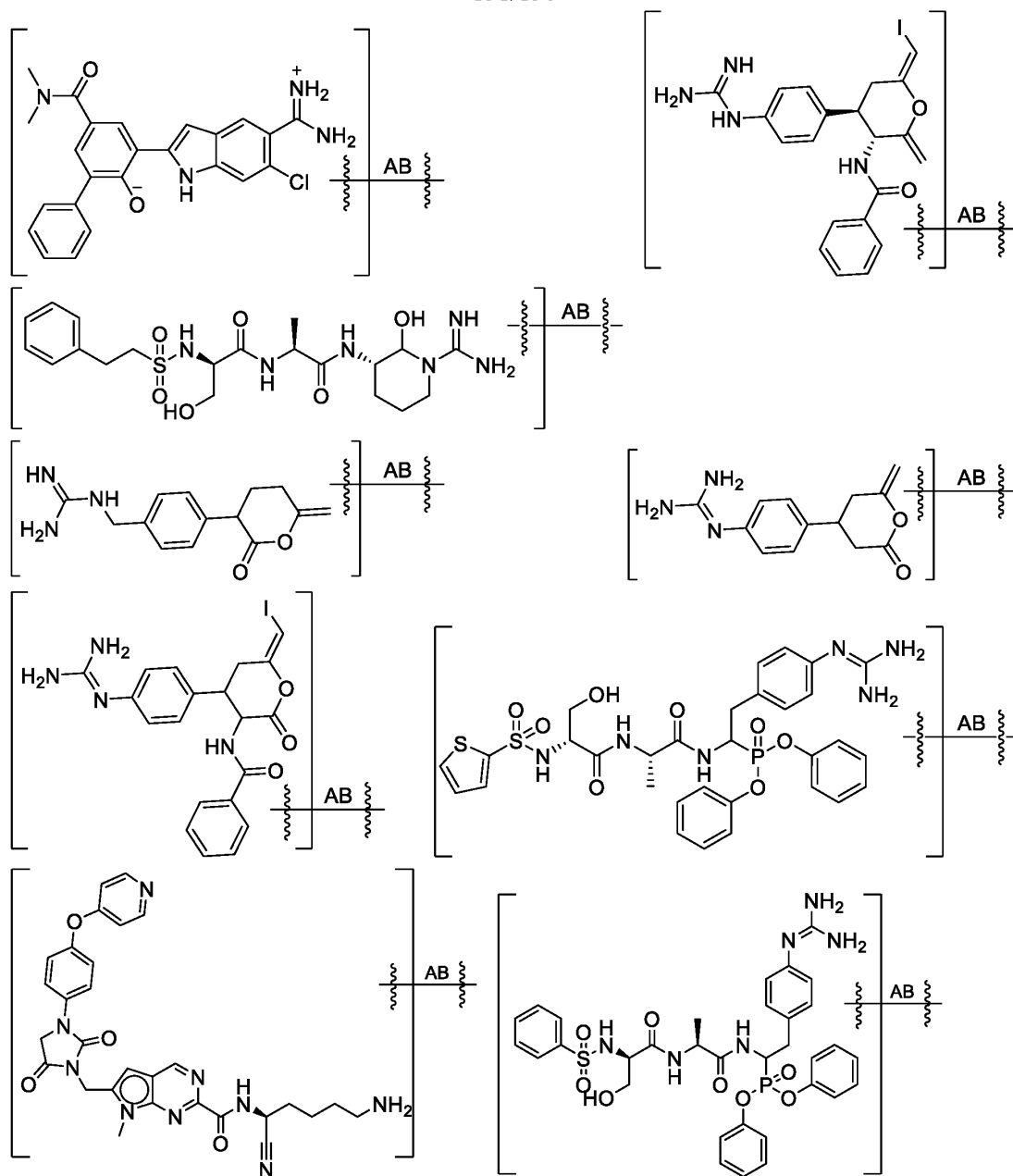


FIG. 1XXXXXX

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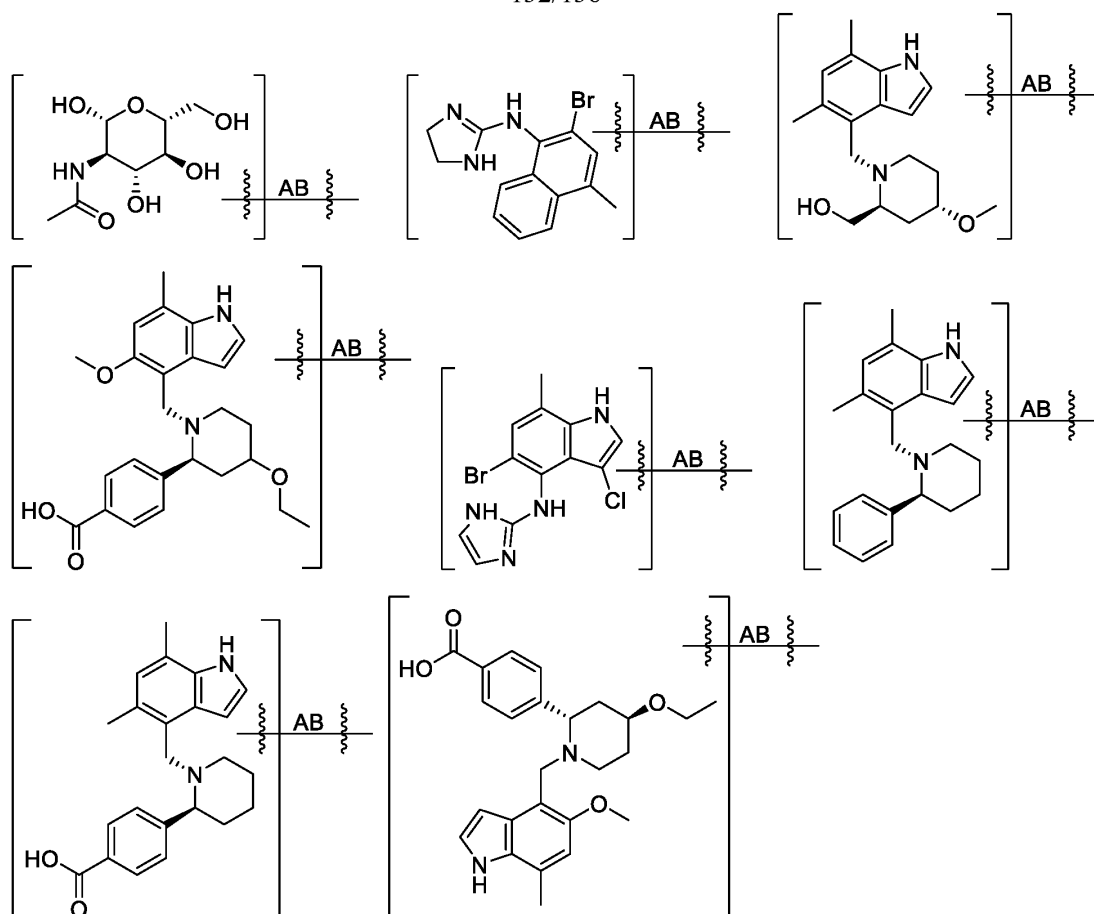


FIG. 2

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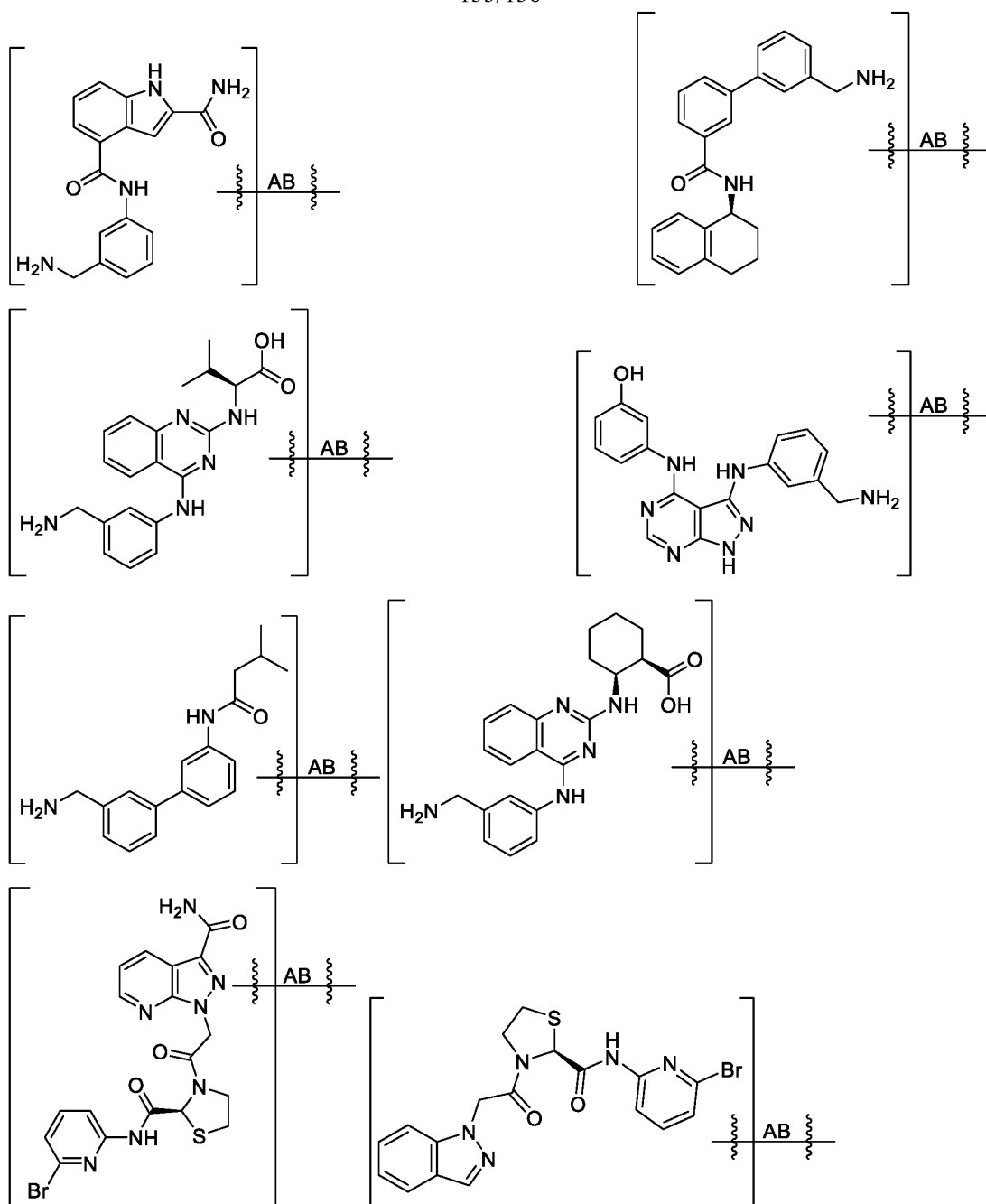


FIG. 3A

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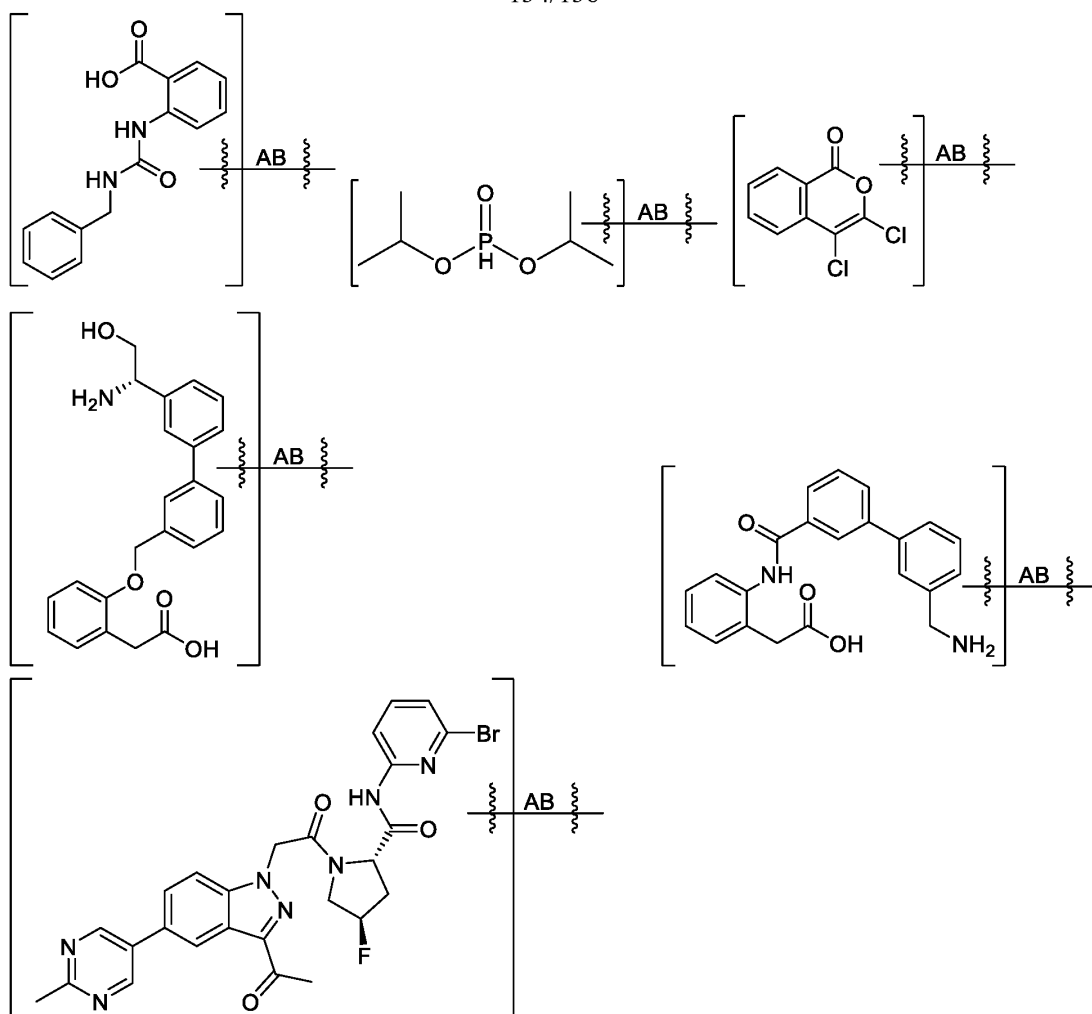


FIG. 3B

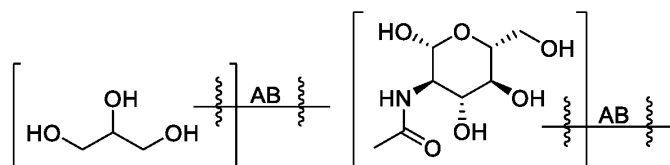


FIG. 4

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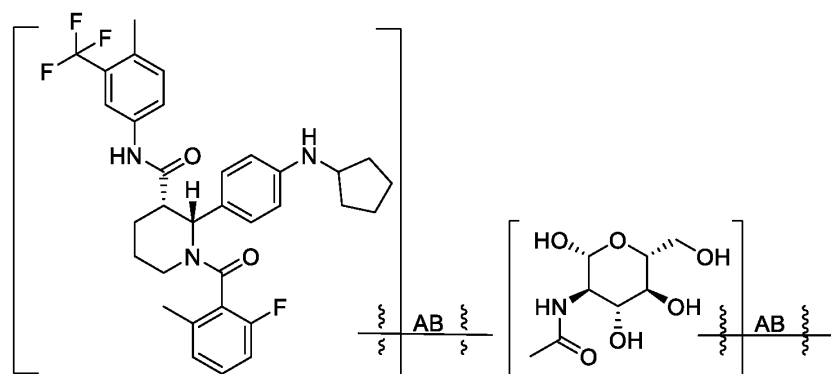


FIG. 5

The figure displays four chemical structures of AB-type monomers, each enclosed in brackets with wavy lines indicating the polymerizable ends. The monomers are labeled AB in the center of each bracket.

- Top Left:** A monomer featuring a 4-(dimethylamino)benzyl group connected via an ether linkage to a 2-(2-(quinolin-2-yl)phenyl)ethyl group.
- Top Right:** A monomer featuring a 4-(hydroxymethyl)benzyl group connected via an ether linkage to a 2-(2-(quinolin-2-yl)phenyl)ethyl group.
- Bottom Left:** A monomer featuring a 4-(2-(2-(2-(2-fluoro-2-fluoromethoxy)propan-2-yl)acetoxy)ethyl)pyrimidin-5-yl group connected via a methylene bridge to a 2-(2-(2-(2-(2-fluoro-2-fluoromethoxy)propan-2-yl)acetoxy)ethyl)pyrimidin-5-yl group.
- Bottom Right:** A monomer featuring a 4-(2-(2-(2-(2-(2-fluoro-2-fluoromethoxy)propan-2-yl)acetoxy)ethyl)pyrimidin-5-yl) group connected via a methylene bridge to a 2-(2-(2-(2-(2-fluoro-2-fluoromethoxy)propan-2-yl)acetoxy)ethyl)pyrimidin-5-yl group.

FIG. 6

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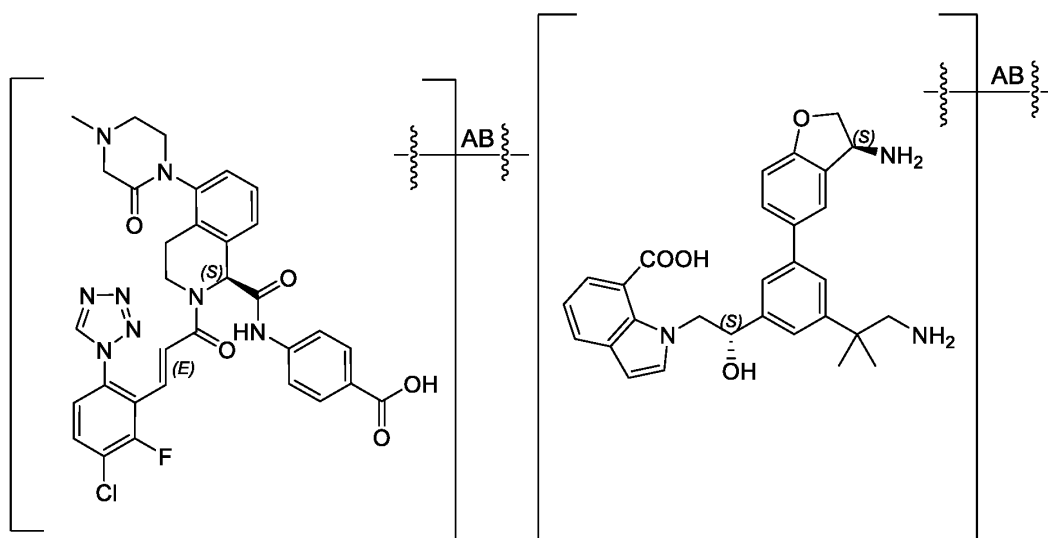


FIG. 7

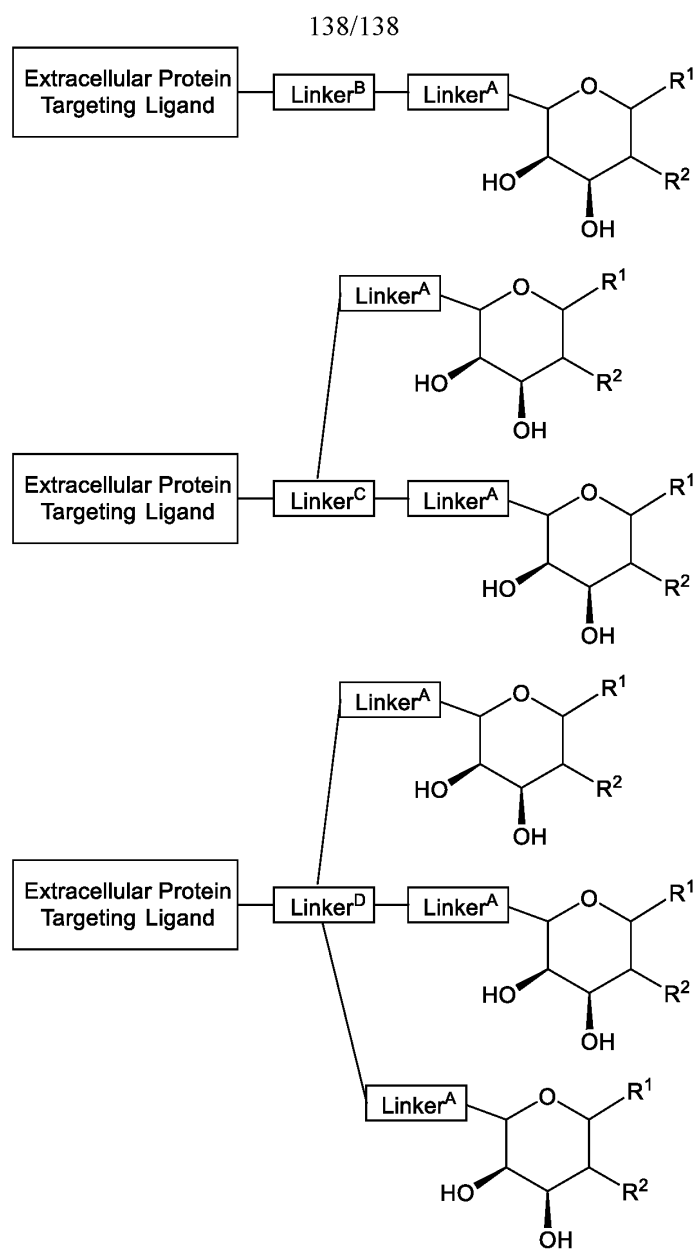


FIG. 8