

THE **SADTLER**

**STANDARD  
SPECTRA**





***SADTLER RESEARCH LABORATORIES, INC.***

**NMR  
CHEMICAL SHIFT INDEX**

*SET 2*

CREATIVE CHEMISTS SINCE 1874

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| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                | S | SOLVENT   |
|---------|-----------------|---------------------|-----------------|-------------------------------------|---|-----------|
| 1409M   | A               | 0.00                | CH3             | SI(CH/CH2/CH3)                      |   | CDCL3     |
| 3449M   | A               | 0.01                | CH3             | SI(CH2/CH2/CH3)                     |   | CL2C=CCL2 |
| 9976M   | A               | 0.01                | HCHR            | R3R5R6R6R5<C*-CH2/CH*-CH2>          |   | CDCL3     |
| 9974M   | A               | 0.01                | HCHR            | R3R5R6R6R5<C*-CH2/CH*-CH2>          |   | CDCL3     |
| 9975M   | A               | 0.02                | HCHR            | R3R5R6R6R5<C*-CH2/CH*-CH2>          |   | CDCL3     |
| 8166M   | A               | 0.02                | HCHR            | R3<CH(CH(CH3/CH3))-HCH>             |   | CCL4      |
| 8168M   | A               | 0.03                | HCHR            | R3<CH(CH2-R3)-HCH>                  |   | CCL4      |
| 8754M   | A               | 0.04                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 6468M   | A               | 0.04                | CH3             | SI(O/CH3/CH3)                       |   | CCL4      |
| 8760M   | A               | 0.05                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8759M   | A               | 0.05                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8752M   | A               | 0.05                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8753M   | A               | 0.05                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8750M   | A               | 0.05                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8183M   | A               | 0.05                | HCHR            | R3<CH(CH3/CH3)-CH(CH3)>             |   | CCL4      |
| 8755M   | A               | 0.06                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8749M   | A               | 0.06                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8756M   | A               | 0.06                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 8751M   | A               | 0.06                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 6515M   | A               | 0.06                | CH3             | SI(O/O/CH3)                         |   | CCL4      |
| 3450M   | A               | 0.06                | CH3             | SI(O3/CH3/CH3)                      |   | CL2C=CCL2 |
| 2561M   | A               | 0.07- 0.68          | CH2R            | R3<CH(CH2-OH)-CH2>                  |   | CCL4      |
| 8758M   | A               | 0.07                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 1364M   | A               | 0.07                | CH3             | SI(O/CH3/CH3)                       |   | CDCL3     |
| 1364M   | A               | 0.07                | CH3             | SI(O/O/CH3)                         |   | CDCL3     |
| 10784M  | A               | 0.07                | CH3             | SI(R5A/CH3/CH3)                     |   | CDCL3     |
| 4144M   | A               | 0.08- 0.74          | CH2R            | R3<CH(CH2-A)-CH2>                   |   | CDCL3     |
| 6467M   | A               | 0.08                | CH3             | R8O000SI(SI(SI(SI(SI(SI(CH3)-O/G))  |   | CCL4      |
| 8757M   | A               | 0.08                | CH3             | SI(CH2/CH3/CH3)                     |   | CDCL3     |
| 2381M   | A               | 0.09- 0.60          | CH2R            | R3<CH(CH(OH/A))-CH2>                |   | CCL4      |
| 2562M   | A               | 0.09- 0.64          | CH2R            | R3<CH(CH(OH/A))-CH2>                |   | CCL4      |
| 1442M   | A               | 0.09                | CH3             | R6N3SI3<SI(CH3)-NH/NH>              |   | CCL4      |
| 12172M  | A               | 0.09                | CH3             | SI(O/O/O)                           |   | CCL4      |
| 8163M   | A               | 0.09                | HCHR            | R3<CH(CH2-CH3)-HCH>                 |   | CCL4      |
| 7686M   | A               | 0.10- 0.70          | CH2R            | R3<CH(R5NN(C(R3)-NH/C(=O)))-CH2>    |   | DMSO-D6   |
| 1513M   | A               | 0.10                | CH3             | R8N4SI4<SI(CH3)-NH/NH>              |   | CCL4      |
| 10791M  | A               | 0.10                | CH3             | SI(O/CH3/CH3)                       |   | CDCL3     |
| 6516M   | A               | 0.10                | CH3             | SI(O/O/O)                           |   | CCL4      |
| 8165M   | A               | 0.10- 0.70          |                 | UNSPECIFIED                         |   | CCL4      |
| 3703M   | A               | 0.11                | CH3             | SI(N/CH3/CH3)                       |   | CCL4      |
| 8174M   | A               | 0.11                | HCHR            | R3<CH(CH3)-CH(CH3)>                 |   | CCL4      |
| 2382M   | A               | 0.12- 0.72          | CH2R            | R3<CH(CH(OH/R5S))-CH2>              |   | CCL4      |
| 5183M   | A               | 0.12                | CH3             | GE(CH3/CH3/CH3)                     |   | CDCL3     |
| 950M    | A               | 0.12                | CH3             | SI(CH2/CH3/CH3)                     |   | CCL4      |
| 966M    | A               | 0.12                | CH3             | SI(O/O/Q3)                          |   | CL2C=CCL2 |
| 1436M   | A               | 0.13                | CH3             | SI(O/O3/CH3)                        |   | CCL4      |
| 8462M   | A               | 0.14                | HCHR            | R3<CH(CH2-R6NN)-HCH>                |   | CDCL3     |
| 13244M  | A               | 0.15                | CH2R            | R3R6(CH*-CH2/CH*-CH2)               |   | CCL4      |
| 10787M  | A               | 0.16                | CH3             | SI(C/CH3/CH3)                       |   | CDCL3     |
| 1443M   | A               | 0.16                | CH3             | SI(O-CH2/Q3/CH3)                    |   | CCL4      |
| 3702M   | A               | 0.17                | CH3             | SI(N/CH3/CH3)                       |   | CCL4      |
| 3703M   | B               | 0.18                | CH3             | SI(N/CH3/CH3)                       |   | CCL4      |
| 7370M   | A               | 0.18                | CH3             | SI(O/CH3/CH3)                       |   | CCL4      |
| 11616M  | A               | 0.19                | CH3             | SI(O/CHC/CH3)                       |   | CCL4      |
| 8163M   | B               | 0.20- 0.80          | CHR             | R3<CH(CH2-CH3)/HCH-HCH>             |   | CCL4      |
| 8894M   | A               | 0.20                | CH3             | SI(O/Q3/CH3)                        |   | CDCL3     |
| 8163M   | B               | 0.20- 0.80          | HCHR            | R3<CH(CH2-CH3)-HCH>                 |   | CCL4      |
| 7162M   | A               | 0.20- 2.00          |                 | UNSPECIFIED                         |   | CDCL3     |
| 9522M   | A               | 0.21                | CH3             | SN(CH3/CH3/CH3)                     |   | CCL4      |
| 5050M   | A               | 0.21                | HCHR            | R3<C(C(OH/A/CH3)/CH3)-HCH>          |   | CCL4      |
| 5050M   | B               | 0.21                | HCHR            | R3<C(C(OH/A/CH3)/CH3)-HCH>          |   | CCL4      |
| 8175M   | A               | 0.23                | CH2R            | R3<C(CH3/CH3)-C(CH3/CH3)>           |   | CCL4      |
| 947M    | A               | 0.23                | CH3             | SI(O/CH2/CH3)                       |   | CCL4      |
| 10790M  | A               | 0.25                | CH3             | SI(SI/CH3/CH3)                      |   | CDCL3     |
| 4208M   | A               | 0.25- 2.82          |                 | UNSPECIFIED                         |   | CCL4      |
| 13026M  | A               | 0.28                | CH3             | SI(A/CH3/CH3)                       |   | CDCL3     |
| 12976M  | A               | 0.28                | CH3             | SI(N3/CH3/CH3)                      |   | CDCL3     |
| 11616M  | B               | 0.28                | CH3             | SI(O/CH3/CH3)                       |   | CCL4      |
| 1713M   | A               | 0.28                | CH3             | SI(O/O/A)                           |   | CCL4      |
| 1514M   | A               | 0.29                | CH3             | SI(N/CH3/CH3)                       |   | CCL4      |
| 1627M   | A               | 0.29                | CH3             | SI(O/A/CH3)                         |   | CCL4      |
| 13728M  | A               | 0.29                | CH3             | SI(C/FEPRICENE/CH3)                 |   | CDCL3     |
| 13729M  | A               | 0.29                | CH3             | SI(O/FEPRICENE/CH3)                 |   | CDCL3     |
| 8968M   | A               | 0.30- 1.87          | CHR             | R6<CH(CH3)/CH2-CH(CH3)/CH2-CH(CH3)> |   | CCL4      |
| 3818M   | A               | 0.30- 1.50          | CH2             | SN(CH2/CH2/CH2)/CH3                 |   | CCL4      |
| 3817M   | A               | 0.30- 1.50          | CH2             | SN(CH2/CH2/CH2)/CH3                 |   | CCL4      |
| 8968M   | A               | 0.30- 1.87          | CH2R            | R6<CH(CH3)-CH2/CH(CH3)-CH2>         |   | CCL4      |
| 3818M   | A               | 0.30- 1.50          | CH3             | CH2-SN                              |   | CCL4      |
| 3817M   | A               | 0.30- 1.50          | CH3             | CH2-SN                              |   | CCL4      |
| 5478M   | A               | 0.30                | CH3             | GE(O/CH3/CH3)                       |   | CCL4      |
| 8166M   | H               | 0.31                | CHR             | R3<CH(CH3/CH3)/HCH-HCH>             |   | CCL4      |

: REPRESENTS TRIPLE BOND, - REPRESENTS AN ARROW AND &lt; AND &gt; REPRESENT BRACKETS.

PAGE 1

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                     | S | SOLVENT   |
|---------|-----------------|---------------------|-----------------|------------------------------------------|---|-----------|
| 8166M   | B               | 0.31                | HCHR            | R3<CH(CH(CH3/CH3))-HCH>                  |   | CCL4      |
| 3766M   | B               | 0.31                | HCHR            | R3<CH(C(OH/CH3))-HCH>                    |   | CCL4      |
| 3766M   | A               | 0.31                | HCHR            | R3<CH(C(OH/CH3))-HCH>                    |   | CCL4      |
| 11851M  | D               | 0.32                | NH              | C(=O)-O-NH/A                             |   | DMSO      |
| 11851M  | D               | 0.32                | NH              | O-C(=O)-NH/C(=O)-A                       |   | DMSO      |
| 8183M   | B               | 0.33- 0.97          | CH2R            | R3<(CH3)/C(CH3/CH3)-HCH>                 |   | CCL4      |
| 3773M   | A               | 0.33 APP.           | CH2R            | R3<CH(C(OH/R6/R3))-CH2>                  |   | CCL4      |
| 13755M  | A               | 0.33                | CH3             | SI(NH/CH3/H)                             |   | CDCL3     |
| 8183M   | B               | 0.33- 0.97          | HCHR            | R3<C(CH3/CH3)-CH(CH3)>                   |   | CCL4      |
| 5429M   | A               | 0.33- 2.00          |                 | UNSPECIFIED                              |   | CCL4      |
| 9974M   | B               | 0.34                | HCHR            | R3R5R6R5<C*-CH2/CH*-CH2>                 |   | CDCL3     |
| 2560M   | A               | 0.35                | CH2R            | R3<CH(CH(OH/A))-CH2>                     |   | CCL4      |
| 340M    | A               | 0.35                | CH2R            | R3<CH(C(OH/A/CH3))-CH2>                  |   | CCL4      |
| 9975M   | B               | 0.35                | HCHR            | R3R5R6R5<C*-CH2/CH*-CH2>                 |   | CDCL3     |
| 9976M   | B               | 0.36                | HCHR            | R3R5R6R5<C*-CH2/CH*-CH2>                 |   | CDCL3     |
| 3768M   | A               | 0.37 APP.           | CH2R            | R3<CH(C(OH/A/CH3))-CH2>                  |   | CCL4      |
| 3914M   | A               | 0.38                | CH2R            | R3<CH(C(OH/A/R3))-CH2>                   |   | CCL4      |
| 1872M   | A               | 0.39                | CH2R            | R3<CH(CH(R6NO/R6NO))-CH2>                |   | CDCL3     |
| 1872M   | B               | 0.39                | CH2R            | R3<CH(CH(R6NO/R6NO))-CH2>                |   | CDCL3     |
| 13730M  | A               | 0.39                | CH3             | SI(FERROCENE/CH2/CH3)                    |   | CDCL3     |
| 12966M  | A               | 0.39                | NH              | CH(CH2/CH3)/R6(CH-CH2/CH2)               |   | CCL4      |
| 5453M   | C               | 0.40- 1.90          | CH2             | CH2-OH/CH2-R5N                           |   | CDCL3     |
| 5453M   | C               | 0.40- 1.90          | CH2             | R5N<CH-C(A/A)/CH2>/CH2-CH2               |   | CDCL3     |
| 1413M   | A               | 0.40- 0.98          | CH3             | CH2-CH                                   |   | CCL4      |
| 1413M   | A               | 0.40- 0.98          | CH3             | CH(O-C(=O)/CH2)                          |   | CCL4      |
| 3444M   | A               | 0.40                | CH3             | SI(OL/CH3/CH3)                           |   | CL2C=CCl2 |
| 757M    | D               | 0.40- 2.20          |                 | UNSPECIFIED                              |   | CDCL3     |
| 758M    | D               | 0.40- 2.00          |                 | UNSPECIFIED                              |   | CCL4      |
| 13244M  | B               | 0.40- 2.50          |                 | UNSPECIFIED                              |   | CCL4      |
| 3912M   | A               | 0.41                | CH2R            | R3<CH(C(OH/A/R3))-CH2>                   |   | CCL4      |
| 8168M   | B               | 0.41                | HCHR            | R3<CH(CH2-R3)-HCH>                       |   | CCL4      |
| 3905M   | A               | 0.42                | CH2R            | R3<CH(C(OH/A/R3))-CH2>                   |   | CCL4      |
| 3913M   | A               | 0.42                | CH2R            | R3<CH(C(OH/A/R3))-CH2>                   |   | CCL4      |
| 3949M   | A               | 0.42- 2.10          |                 | UNSPECIFIED                              |   | CCL4      |
| 4774M   | A               | 0.43- 2.26          |                 | UNSPECIFIED                              |   | CDCL3     |
| 1449M   | A               | 0.44                | CH2R            | R3<CH(R5NN<C(R3)-NH/C(=O)>)-CH2>         |   | CCL4      |
| 3448M   | A               | 0.44                | CH3             | SI(OL/O3/CH3)                            |   | CL2C=CCl2 |
| 3766M   | B               | 0.44                | HCHR            | R3<CH(C(OH/CH3))-HCH>                    |   | CCL4      |
| 3766M   | A               | 0.44                | HCHR            | R3<CH(C(OH/CH3))-HCH>                    |   | CCL4      |
| 8322M   | A               | 0.45                | HCHR            | R5R5BI<CH*(CH=CH2)/CH*(CH(CH2-O)/CH=)>   |   | CDCL3     |
| 6640M   | A               | 0.46                | CH3             | SN(IN3/CH3/CH3)                          |   | DMSO-D6   |
| 12204M  | A               | 0.47                | CH3             | CH(CH2/CH3)                              |   | CDCL3     |
| 4537M   | A               | 0.48 APP.           | CH2R            | R3<CH(CH(OH/A))-CH2>                     |   | CDCL3     |
| 9483M   | A               | 0.48                | CH3             | SI(R5NN/CH3/CH3)                         |   | CDCL3     |
| 10097M  | A               | 0.48- 2.00          |                 | UNSPECIFIED                              |   | CDCL3     |
| 10184M  | A               | 0.48- 1.95          |                 | UNSPECIFIED                              |   | CDCL3     |
| 12200M  | A               | 0.49                | CH3             | CH(CH2/CH3)                              |   | CDCL3     |
| 7732M   | A               | 0.49                | CH3             | CH(C/CH3)                                | S | D2O       |
| 3700M   | A               | 0.50- 1.21          | CH2R            | R3<CH(C(=O)-NH2)-CH2>                    |   | CDCL3     |
| 3699M   | A               | 0.50- 1.10          | CH2R            | R3<CH(C(=O)-NH)-CH2>                     |   | CDCL3     |
| 8167M   | A               | 0.50                | CH2R            | R3<CH(Q2(CH3))-CH2>                      |   | CCL4      |
| 13937M  | A               | 0.50- 1.60          | CH2R            | R3<CH(R5S(C=CH/CH=))-CH2>                |   | CCL4      |
| 13938M  | A               | 0.50- 1.60          | CH2R            | R3<CH(R5S(C=CH/S))-CH2>                  |   | CCL4      |
| 13939M  | A               | 0.50- 1.20          | CH2R            | R3<CH(R5S(C=CH/S))-CH2>                  |   | CCL4      |
| 1571M   | A               | 0.50- 2.20          |                 | UNSPECIFIED                              |   | CCL4      |
| 11683M  | A               | 0.50- 2.10          |                 | UNSPECIFIED                              |   | CDCL3     |
| 9975M   | E               | 0.50- 2.20          |                 | UNSPECIFIED                              |   | CDCL3     |
| 9976M   | E               | 0.50- 2.20          |                 | UNSPECIFIED                              |   | CDCL3     |
| 12046M  | A               | 0.50- 2.80          |                 | UNSPECIFIED                              |   | CCL4      |
| 14473M  | A               | 0.50- 2.20          |                 | UNSPECIFIED                              |   | CDCL3     |
| 4143M   | A               | 0.50- 2.75          |                 | UNSPECIFIED                              |   | CDCL3     |
| 9956M   | E               | 0.50- 2.70          |                 | UNSPECIFIED                              |   | CDCL3     |
| 6376M   | A               | 0.50- 2.00          |                 | UNSPECIFIED                              |   | CCL4      |
| 6377M   | A               | 0.50- 2.10          |                 | UNSPECIFIED                              |   | CCL4      |
| 6378M   | A               | 0.50- 2.00          |                 | UNSPECIFIED                              |   | CCL4      |
| 10272M  | A               | 0.51- 2.10          |                 | UNSPECIFIED                              |   | CDCL3     |
| 8754M   | B               | 0.52 APP.           | CH2             | SI(CH3/CH3/CH3)/CH2-CH2                  |   | CDCL3     |
| 8756M   | B               | 0.52                | CH2             | SI(CH3/CH3/CH3)/CH2-CH2                  |   | CDCL3     |
| 3800M   | A               | 0.52                | NHR             | R6N<C(CH3/CH3)-CH2/C(CH3/CH3)-CH2>       |   | CCL4      |
| 2152M   | A               | 0.52- 1.88          |                 | UNSPECIFIED                              |   | CCL4      |
| 8772M   | A               | 0.53                | NH              | CH2-CH2/CH2-CH2                          |   | CCL4      |
| 13764M  | A               | 0.54                | CH3             | SI(OL/CH2/CH3)                           |   | CDCL3     |
| 8753M   | B               | 0.55                | CH2             | SI(CH3/CH3/CH3)/CH2-CH2                  |   | CDCL3     |
| 5479M   | A               | 0.55                | HCHR            | R5R5BI<CH*(CH(NH-CH2)/CH2)/CH*(CH2/CH2)> |   | CCL4      |
| 5887M   | C               | 0.56- 2.04          | CH2.X           | CH2-4                                    | S | CDCL3     |
| 9224M   | A               | 0.56                | CH3             | CH2-C                                    |   | CDCL3     |
| 1085M   | A               | 0.57                | CH2             | SI(O/O/O)/CH2-CH2                        |   | CCL4      |
| 10830M  | A               | 0.57                | CH3             | CH(C/CH2)                                |   | CDCL3     |
| 9990M   | A               | 0.57                | CH3             | R5R6R6R6<C*(CH(CH2-CH3)/CH2)>            |   | CDCL3     |
| 8755M   | B               | 0.58                | CH2             | SI(CH3/CH3/CH3)/CH2-CH2                  |   | CDCL3     |
| 1084M   | A               | 0.58                | CH2             | SI(O/O/O)/CH2-CH2                        |   | CCL4      |

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PAGE 2

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                          | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|-----------------------------------------------|---|---------|
| 9278M   | A               | 0.58- 1.07          | CH3             | CH(CH/CH3)                                    |   | CCL4    |
| 9278M   | A               | 0.58- 1.07          | CH3             | CH(CH/CH)                                     |   | CCL4    |
| 9949M   | A               | 0.58                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 10404M  | A               | 0.58                | NH              | R6/R6                                         |   | CCL4    |
| 4557M   | A               | 0.58- 2.42          |                 | UNSPECIFIED                                   |   | CCL4    |
| 5874M   | C               | 0.59- 2.00          | CH2.X           | CH2.3                                         |   | CCL4    |
| 1456M   | A               | 0.59 APP.           | CH2R            | R3<CH(R5NN<C(R3)-NH/C(=O))>-CH2>              |   | TFA     |
| 1477M   | A               | 0.59                | CH3             | R6<C(CH3)-HCH/HCH>                            |   | CDCL3   |
| 1477M   | B               | 0.59                | CH3             | R6<C(CH3)-HCH/HCH>                            |   | CDCL3   |
| 14184M  | A               | 0.59                | HCHR            | R5R5BI(CH*(C(CH2-OH/CH2-OH)/CH=)/CH*(CH=CH2)) |   | DMSO-D6 |
| 10773M  | C               | 0.59- 2.40          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 2771M   | B               | 0.59- 2.00          |                 | UNSPECIFIED                                   |   | CCL4    |
| 5818M   | B               | 0.59                |                 | UNSPECIFIED                                   |   | CDCL3   |
| 1463M   | A               | 0.60- 1.10          | CH2             | GE(R5NN/CH2/CH2)/CH2-CH2                      |   | CCL4    |
| 9915M   | A               | 0.60- 1.30          | CH2             | R600PR60BI<C(CH2/CH2/CH2)/CH3                 |   | CDCL3   |
| 4431M   | B               | 0.60- 1.97          | CH2.X           | CH2.6                                         |   | DMSO-D6 |
| 1463M   | A               | 0.60- 1.10          | CH3             | CH2-CH2                                       |   | CCL4    |
| 9915M   | A               | 0.60- 1.30          | CH3             | CH2-R600PR60BI                                |   | CDCL3   |
| 9948M   | A               | 0.60                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 13797M  | A               | 0.60- 2.20          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 6765M   | A               | 0.60- 2.00          |                 | UNSPECIFIED                                   |   | CCL4    |
| 5093M   | C               | 0.60- 1.62          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 13956M  | B               | 0.60- 2.30          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 9974M   | E               | 0.60- 2.50          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 3964M   | C               | 0.60- 2.00          |                 | UNSPECIFIED                                   |   | CCL4    |
| 11964M  | A               | 0.60- 1.92          |                 | UNSPECIFIED                                   |   | CCL4    |
| 3836M   | A               | 0.60- 1.80          |                 | UNSPECIFIED                                   |   | CCL4    |
| 12047M  | A               | 0.60- 2.50          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 4560M   | A               | 0.60- 2.20          |                 | UNSPECIFIED                                   |   | CCL4    |
| 9299M   | A               | 0.61                | CH3             | CH2-C                                         |   | CCL4    |
| 9223M   | A               | 0.61                | CH3             | CH2-C                                         |   | CDCL3   |
| 9992M   | A               | 0.61                | CH3             | R5R6R6R6<C*(CH(CH(CH2/CH3))/CH2)>             |   | CDCL3   |
| 9951M   | A               | 0.61                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 9980M   | A               | 0.61                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 6166M   | A               | 0.61- 2.59          |                 | UNSPECIFIED                                   |   | CDCL3   |
| 5890M   | C               | 0.62- 2.08          | CH2.X           | CH2.3                                         |   | CDCL3   |
| 9507M   | A               | 0.62                | CH2R            | R3<CH(N(C(=O)-O/CH2))>-CH2>                   |   | CCL4    |
| 3412M   | A               | 0.62- 1.00          | CH3             | CH2-CH                                        |   | CCL4    |
| 3412M   | A               | 0.62- 1.00          | CH3             | CH(CH2/CH2)                                   |   | CCL4    |
| 12081M  | A               | 0.63                | CH3             | CH2-C                                         |   | CDCL3   |
| 12081M  | B               | 0.63                | CH3             | CH2-C                                         |   | CDCL3   |
| 10815M  | A               | 0.63                | CH3             | CH(CH2/CH3)                                   |   | CDCL3   |
| 9993M   | A               | 0.63                | CH3             | R5R6R6R6<C*(CH(CH(CH2/CH3))/CH2)>             |   | CDCL3   |
| 9983M   | A               | 0.63                | CH3             | R5R6R6R6<C*(CH(CH(C(=O)-CH3)/CH2)>            |   | CDCL3   |
| 1472M   | A               | 0.63                | CH3             | SI(CL/A/CH3)                                  |   | CCL4    |
| 13765M  | A               | 0.63                | CH3             | SI(O/CH/CH3)                                  |   | CDCL3   |
| 5751M   | A               | 0.63                | NH              | CH2-CH2/CH2-CH2                               |   | CCL4    |
| 4434M   | B               | 0.64- 2.13          | CH2             | CH2-CH2/CH3                                   |   | DMSO-D6 |
| 7159M   | A               | 0.64- 1.36          | CH2             | CH2-C/CH3                                     |   | CDCL3   |
| 4434M   | B               | 0.64- 2.13          | CH2             | CH2-O/CH2-CH3                                 |   | DMSO-D6 |
| 4212M   | B               | 0.64- 2.11          | CH2.X           | CH2.3                                         |   | CCL4    |
| 4375M   | A               | 0.64- 2.57          | CH2R            | R5<CH2-C/CH2-CH2>                             |   | CDCL3   |
| 4375M   | A               | 0.64- 2.57          | CH2R            | R5<C(OH/C(=O)-OH)-CH2/CH2-CH2>                |   | CDCL3   |
| 10942M  | A               | 0.64                | CH3             | CH2-C                                         |   | CCL4    |
| 6159M   | A               | 0.64                | CH3             | CH2-CH2                                       |   | CCL4    |
| 7159M   | A               | 0.64- 1.36          | CH3             | CH2-CH2                                       |   | CDCL3   |
| 7079M   | A               | 0.64                | CH3             | R5NOR6SP<CH-N(CH3)/CH(A)>                     |   | CDCL3   |
| 9976M   | C               | 0.64                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 9989M   | A               | 0.64                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 11868M  | A               | 0.64                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 11870M  | A               | 0.64                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 5391M   | A               | 0.64- 1.68          |                 | UNSPECIFIED                                   |   | CCL4    |
| 4023M   | B               | 0.65- 1.90          | CH2             | CH2-CH2/CH3                                   |   | CCL4    |
| 4023M   | B               | 0.65- 1.90          | CH2             | CH2-O/CH2-CH3                                 |   | CCL4    |
| 1461M   | A               | 0.65- 1.10          | CH2             | GE(O-C(=O)/CH2/CH2)/CH2-CH2                   |   | CCL4    |
| 4417M   | C               | 0.65- 1.55          | CH2.X           | CH2.3                                         |   | CCL4    |
| 4580M   | B               | 0.65- 2.08          | CH2.X           | CH2.4                                         |   | CCL4    |
| 2242M   | A               | 0.65                | CH3             | CH2-C                                         |   | CDCL3   |
| 1418M   | A               | 0.65                | CH3             | CH2-CH2                                       |   | CCL4    |
| 1461M   | A               | 0.65- 1.10          | CH3             | CH2-CH2                                       |   | CCL4    |
| 9975M   | C               | 0.65                | CH3             | R5R6R6R6R6<C*(C(O-C(=O)-CH3/C(=O)-CH3)/CH2)>  |   | CDCL3   |
| 9950M   | A               | 0.65                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 9943M   | B               | 0.65                | CH3             | R5R6R6R6<C*(CH*/CH2)>                         |   | CDCL3   |
| 9943M   | A               | 0.65                | CH3             | R5R6R6R6<C*(C(OH/C(=O))/CH2)>                 |   | CDCL3   |
| 1838M   | A               | 0.65                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 11866M  | A               | 0.65                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 11873M  | A               | 0.65                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>               |   | CDCL3   |
| 5845M   | A               | 0.65- 2.41          |                 | UNSPECIFIED                                   |   | CCL4    |
| 3907M   | B               | 0.65- 2.17          |                 | UNSPECIFIED                                   |   | CCL4    |
| 7684M   | C               | 0.65- 2.19          |                 | UNSPECIFIED                                   |   | TFA     |
| 5433M   | C               | 0.66- 1.84          | CH2             | CH2-CH/CH3                                    |   | CCL4    |

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| NMR NO. | ASSIGNMENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                        | S | SOLVENT |
|---------|------------|---------------------|-----------------|---------------------------------------------|---|---------|
| 5433M   | C          | 0.66- 1.84          | CH2             | CH(C(=O)-O/CH3)/CH2-CH3                     |   | CCL4    |
| 3145M   | A          | 0.66                | CH3             | CH2-CH2                                     |   | CCL4    |
| 4151M   | A          | 0.66                | CH3             | CH2-CH2                                     |   | CDCL3   |
| 1538M   | A          | 0.66- 1.10          | CH3             | CH(R5/CH3/CH3)                              |   | CCL4    |
| 9953M   | A          | 0.66                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9981M   | A          | 0.66                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 11890M  | A          | 0.66                | CH3             | R5R6R6R6(C*-C*(CH2-CH2)/CH2)                |   | CDCL3   |
| 14046M  | A          | 0.66                | HCHR            | R3(C(C(=O)-OH/CH2-CH3)-C(C(=O)-OH/CH2-CH3)) |   | DMSO-D6 |
| 1420M   | A          | 0.66                | NH              | CH2-CH2/CH2-CH2                             |   | CCL4    |
| 8447M   | A          | 0.67- 1.15          | CH2R            | R3<CH(C(=O)-R6NN)-CH2>                      |   | CDCL3   |
| 12081M  | B          | 0.67                | CH3             | CH2-C                                       |   | CDCL3   |
| 12081M  | A          | 0.67                | CH3             | CH2-C                                       |   | CDCL3   |
| 10993M  | A          | 0.67                | CH3             | CH2-C                                       |   | CDCL3   |
| 10994M  | A          | 0.67                | CH3             | CH2-C                                       |   | CCL4    |
| 601M    | A          | 0.67                | CH3             | CH2-C                                       |   | CDCL3   |
| 2420M   | A          | 0.67                | CH3             | CH(CH2/CH3)                                 |   | CCL4    |
| 9965M   | A          | 0.67                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>             |   | CDCL3   |
| 11891M  | A          | 0.67                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2                |   | CDCL3   |
| 11886M  | A          | 0.67                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2                |   | CDCL3   |
| 11859M  | A          | 0.67                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)              |   | CDCL3   |
| 8462M   | B          | 0.67                | HCHR            | R3<CH(CH2-R6NN)-HCH>                        |   | CDCL3   |
| 7049M   | A          | 0.67                | NH              | CH(CH3/CH3)/CH(CH3/CH3)                     |   | CCL4    |
| 2240M   | A          | 0.67- 2.00          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 1872M   | B          | 0.68                | CH2R            | R3<CH(CH(R6NO/R6NO))-CH2>                   |   | CDCL3   |
| 1872M   | A          | 0.68                | CH2R            | R3<CH(CH(R6NO/R6NO))-CH2>                   |   | CDCL3   |
| 12722M  | A          | 0.68- 1.30          | CH2R            | R3(CH(C(=O)-A)/CH2)                         |   | CCL4    |
| 256M    | A          | 0.68                | CH3             | CH2-C                                       |   | CCL4    |
| 2963M   | A          | 0.68- 1.15          | CH3             | CH2-CH2                                     |   | TFA     |
| 9970M   | A          | 0.68                | CH3             | R5R6R6R6R5OOSPI<C*(CH(CH2/CH3))/CH2>        |   | CDCL3   |
| 9957M   | A          | 0.68                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9986M   | A          | 0.68                | CH3             | R5R6R6R6<C*(CH(C(=O)-O-CH3)/CH2)>           |   | CDCL3   |
| 11874M  | A          | 0.68                | CH3             | R5R6R6R6(C*-C(O-C(=O)-CH3)/CH2)             |   | CDCL3   |
| 8061M   | A          | 0.68                | CH3             | SN(CL/CH3/CH3)                              |   | CDCL3   |
| 10898M  | A          | 0.68                | NH              | R6/CH2-CH                                   |   | CCL4    |
| 4353M   | A          | 0.68- 2.17          |                 | UNSPECIFIED                                 |   | DMSO-D6 |
| 3906M   | A          | 0.68- 2.17          |                 | UNSPECIFIED                                 |   | CCL4    |
| 11898M  | C          | 0.68- 2.60          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 7300M   | A          | 0.68- 2.15          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 3773M   | B          | 0.69 APP.           | CHR             | R3<(C(OH/R6/R3))/CH2-CH2>                   |   | CCL4    |
| 14172M  | B          | 0.69- 1.61          | CH2             | CH2-R6NN/CH3                                |   | CDCL3   |
| 9213M   | A          | 0.69                | CH3             | CH2-C                                       |   | CDCL3   |
| 13873M  | A          | 0.69                | CH3             | CH2-C                                       |   | DMSO-D6 |
| 2504M   | A          | 0.69                | CH3             | CH2-C                                       |   | CDCL3   |
| 10825M  | A          | 0.69                | CH3             | CH2-C                                       |   | CDCL3   |
| 7563M   | A          | 0.69                | CH3             | CH2-C                                       |   | CCL4    |
| 9296M   | A          | 0.69                | CH3             | CH2-CH                                      |   | CCL4    |
| 9978M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9942M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9962M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9940M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9941M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9999M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 9982M   | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>               |   | CDCL3   |
| 10000M  | A          | 0.69                | CH3             | R5R6R6R6<C*(CH(OH)/CH(CH2/CH3))>            |   | CDCL3   |
| 11863M  | A          | 0.69                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)              |   | CDCL3   |
| 11860M  | A          | 0.69                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)              |   | CDCL3   |
| 11862M  | A          | 0.69                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)              |   | CDCL3   |
| 11879M  | A          | 0.69                | CH3             | R5R6R6R6(C*-C(O-C(=O)-CH3)/CH2)             |   | CDCL3   |
| 1240M   | A          | 0.69                | NH              | CH2-CH2/CH2-CH3                             |   | CCL4    |
| 1876M   | A          | 0.69                | NH              | CH(CH2/CH3)/CH3                             |   | CCL4    |
| 5072M   | A          | 0.69- 0.91          |                 | UNSPECIFIED                                 |   | CCL4    |
| 6278M   | D          | 0.70- 1.51          | CH2             | CH2-CH/CH3                                  |   | CCL4    |
| 5456M   | A          | 0.70- 2.10          | CH2             | CH2-C=N/CH2-R5N                             |   | CDCL3   |
| 13963M  | A          | 0.70- 1.60          | CH2             | CH2-C/CH3                                   |   | CDCL3   |
| 6278M   | D          | 0.70- 1.51          | CH2             | CH(C-CH3)/CH2-CH3                           |   | CCL4    |
| 5456M   | A          | 0.70                | CH2             | R5N<CH-C(A/A)/CH2>/CH2-CH2                  |   | CDCL3   |
| 12123M  | A          | 0.70                | CH2             | SI(O/O)/CH3                                 |   | CDCL3   |
| 10164M  | A          | 0.70- 1.20          | CH2             | SN(O/CH2/CH2)/CH2-CH2                       |   | CDCL3   |
| 8266M   | A          | 0.70- 1.21          | CH2R            | R3<CH(C(OH)-OH)-CH2>                        |   | CCL4    |
| 12723M  | A          | 0.70- 1.30          | CH2R            | R3(CH(C(=O)-A)/CH2)                         |   | CCL4    |
| 12724M  | A          | 0.70- 1.30          | CH2R            | R3(CH(C(=O)-A)/CH2)                         |   | CCL4    |
| 12727M  | A          | 0.70- 1.40          | CH2R            | R3(CH(C(=O)-A)/CH2)                         |   | CCL4    |
| 13864M  | A          | 0.70- 2.20          | CH2R            | R5(CH2-CH(CH(C(=O)-OH/A))/CH2-CH2)          |   | CDCL3   |
| 13864M  | A          | 0.70- 2.20          | CH2R            | R5(CH(CH(C(=O)-OH/A))-CH2/CH2-CH2)          |   | CDCL3   |
| 6085M   | A          | 0.70- 2.22          | CH2R            | R6<CH2-CH(OH)/CH2-CH2>                      |   | D2O     |
| 2513M   | A          | 0.70- 2.00          | CH2R            | R6<CH(CH2-NH2)-CH2/CH2-CH(CH2-NH2)>         |   | CDCL3   |
| 2530M   | A          | 0.70- 1.80          | CH2R            | R6<CH(CH2-OH)-CH2/CH2-CH(CH2-OH)>           |   | CDCL3   |
| 6085M   | A          | 0.70- 2.22          | CH2R            | R6<CH(OH)-CH(OH)/CH2-CH2>                   |   | D2O     |
| 6922M   | A          | 0.70                | CH3             | CH2-C                                       |   | CDCL3   |
| 11262M  | A          | 0.70                | CH3             | CH2-C                                       |   | CDCL3   |
| 11086M  | A          | 0.70- 1.12          | CH3             | CH2-CH                                      |   | CCL4    |

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PAGE 4

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                   | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|----------------------------------------|---|---------|
| 11086M  | A               | 0.70- 1.12          | CH3             | CH2-CH2                                |   | CCL4    |
| 10164M  | A               | 0.70- 1.20          | CH3             | CH2-CH2                                |   | CDCL3   |
| 13963M  | A               | 0.70- 1.60          | CH3             | CH2-CH2                                |   | CDCL3   |
| 12959M  | A               | 0.70- 1.00          | CH3             | CH2-CH2                                |   | CCL4    |
| 3682M   | A               | 0.70                | CH3             | CH2-N                                  |   | CDCL3   |
| 3682M   | A               | 0.70                | CH3             | CH2-N                                  |   | CDCL3   |
| 3682M   | B               | 0.70                | CH3             | CH2-N                                  |   | CDCL3   |
| 3682M   | B               | 0.70                | CH3             | CH2-N                                  |   | CDCL3   |
| 11001M  | A               | 0.70                | CH3             | CH2-R6NN                               |   | CDCL3   |
| 12959M  | A               | 0.70- 1.00          | CH3             | CH(CH2/CH2)                            |   | CCL4    |
| 2419M   | A               | 0.70                | CH3             | CH(CH2/CH3)                            |   | CDCL3   |
| 9995M   | A               | 0.70                | CH3             | R5R6R6R6<C*(CH2/CH2)>                  |   | CDCL3   |
| 9994M   | A               | 0.70                | CH3             | R5R6R6R6<C*(CH2/CH2)>                  |   | CDCL3   |
| 9947M   | A               | 0.70                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>          |   | CDCL3   |
| 9979M   | A               | 0.70                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH2)>        |   | CDCL3   |
| 9987M   | A               | 0.70                | CH3             | R5R6R6R6<C*(CH(C(=O)-HCH)/CH2)>        |   | CDCL3   |
| 9988M   | A               | 0.70                | CH3             | R5R6R6R6<C*(C(OH/C(=O)-HCH)/CH2)>      |   | CDCL3   |
| 9997M   | A               | 0.70                | CH3             | R5R6R6R6<C*(C(OH/C(=O)-HCH)/CH2)>      |   | CDCL3   |
| 11887M  | A               | 0.70                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11892M  | A               | 0.70                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11888M  | A               | 0.70                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 12335M  | A               | 0.70                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11889M  | A               | 0.70                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)         |   | CDCL3   |
| 9942M   | D               | 0.70- 2.30          |                 | UNSPECIFIED                            |   | CDCL3   |
| 8165M   | B               | 0.70- 1.50          |                 | UNSPECIFIED                            |   | CCL4    |
| 14327M  | A               | 0.70- 1.90          |                 | UNSPECIFIED                            |   | DMSO-D6 |
| 8032M   | A               | 0.70- 2.10          |                 | UNSPECIFIED                            |   | CDCL3   |
| 11897M  | D               | 0.70- 2.58          |                 | UNSPECIFIED                            |   | CDCL3   |
| 13813M  | A               | 0.70- 2.10          |                 | UNSPECIFIED                            |   | DMSO-D6 |
| 12527M  | A               | 0.70- 1.90          |                 | UNSPECIFIED                            |   | D2O     |
| 12335M  | D               | 0.70- 2.60          |                 | UNSPECIFIED                            |   | CDCL3   |
| 11044M  | A               | 0.70- 2.40          |                 | UNSPECIFIED                            |   | CCL4    |
| 12558M  | D               | 0.70- 2.30          |                 | UNSPECIFIED                            |   | CDCL3   |
| 13907M  | A               | 0.70- 2.00          |                 | UNSPECIFIED                            |   | CDCL3   |
| 9978M   | D               | 0.70- 2.70          |                 | UNSPECIFIED                            |   | CDCL3   |
| 3328M   | A               | 0.70- 2.00          |                 | UNSPECIFIED                            |   | CDCL3   |
| 9541M   | A               | 0.70- 2.15          |                 | UNSPECIFIED                            |   | CDCL3   |
| 12123M  | B               | 0.70- 1.10          |                 | UNSPECIFIED                            |   | CDCL3   |
| 12963M  | A               | 0.70- 1.10          |                 | UNSPECIFIED                            |   | CCL4    |
| 12965M  | A               | 0.70- 1.00          |                 | UNSPECIFIED                            |   | CCL4    |
| 4356M   | B               | 0.70- 2.30          |                 | UNSPECIFIED                            |   | CDCL3   |
| 5435M   | A               | 0.70- 1.90          |                 | UNSPECIFIED                            |   | CDCL3   |
| 14555M  | A               | 0.70- 2.20          |                 | UNSPECIFIED                            |   | CDCL3   |
| 14429M  | A               | 0.70- 1.20          |                 | UNSPECIFIED                            |   | CCL4    |
| 5871M   | B               | 0.71- 2.17          | CH2             | CH2-CH2/CH3                            |   | CDCL3   |
| 5871M   | B               | 0.71- 2.17          | CH2             | CH2-N(+)/CH2-CH3                       |   | CDCL3   |
| 10294M  | B               | 0.71- 1.89          | CH2R            | R6N(CH2-CH(CH3)/CH2-CH2)               |   | CCL4    |
| 10294M  | B               | 0.71- 1.89          | CH2R            | R6N(CH2-CH(CH3)/CH2-CH(CH3))           |   | CCL4    |
| 12929M  | A               | 0.71                | CH3             | CH2-C                                  |   | DMSO-D6 |
| 10779M  | A               | 0.71                | CH3             | CH2-C                                  |   | CDCL3   |
| 1835M   | A               | 0.71                | CH3             | CH2-CH2                                |   | CDCL3   |
| 13475M  | A               | 0.71                | CH3             | CH2-R6N                                |   | DMSO-D6 |
| 9991M   | A               | 0.71                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>          |   | CDCL3   |
| 9939M   | A               | 0.71                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>          |   | CDCL3   |
| 12558M  | A               | 0.71                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11858M  | A               | 0.71                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2-CH2)     |   | CDCL3   |
| 11869M  | A               | 0.71                | CH3             | R5R6R6R6(C*-C(OH/C(=O)-CH3)/CH2)       |   | CDCL3   |
| 5294M   | A               | 0.71                | CH3             | R6N<CH-CH(OH)/CH(A<C-CH-CH-C(O-CH3)>)> |   | CDCL3   |
| 6570M   | B               | 0.71                | CH3             | R6OOP<C(CH3)-HCH/HCH>                  |   | CCL4    |
| 6570M   | A               | 0.71                | CH3             | R6OOP<C(CH3)-HCH/HCH>                  |   | CCL4    |
| 9051M   | C               | 0.71- 1.13          | NH              | CH(CH2/CH3)/CH2-CH2                    |   | CDCL3   |
| 7437M   | A               | 0.71                | NH              | R6<CH-CH2/CH2>/CH2-CH2                 |   | CCL4    |
| 6713M   | A               | 0.71- 2.00          |                 | UNSPECIFIED                            |   | CCL4    |
| 1328M   | A               | 0.72                | CH3             | CH2-CH2                                |   | CDCL3   |
| 10999M  | A               | 0.72                | CH3             | CH2-R6NN                               |   | CDCL3   |
| 13100M  | A               | 0.72                | CH3             | CH2-R6NO                               |   | DMSO-D6 |
| 11759M  | A               | 0.72                | CH3             | CH(CH2/CH3)                            |   | CDCL3   |
| 14117M  | A               | 0.72                | CH3             | C(CH2/CH3/CH3)                         |   | CDCL3   |
| 9998M   | A               | 0.72                | CH3             | R5R6R6R6<C*(CH(C(=O)-CH3)/CH=>         |   | CDCL3   |
| 11893M  | A               | 0.72                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11899M  | A               | 0.72                | CH3             | R5R6R6R6(C*-CH(CH2/CH3))/CH2           |   | CDCL3   |
| 11877M  | A               | 0.72                | CH3             | R5R6R6R6(C*-CH(C(=O)-CH3)/CH2)         |   | CDCL3   |
| 5053M   | A               | 0.72- 2.30          |                 | UNSPECIFIED                            |   | CCL4    |
| 7587M   | A               | 0.72- 2.26          |                 | UNSPECIFIED                            |   | DMSO-D6 |
| 568M    | A               | 0.73                | CH3             | CH2-C                                  |   | CCL4    |
| 3979M   | A               | 0.73                | CH3             | CH2-C                                  |   | CDCL3   |
| 2816M   | A               | 0.73                | CH3             | CH2-CH2                                |   | CCL4    |
| 10226M  | A               | 0.73                | CH3             | CH2-Q                                  |   | DMSO-D6 |
| 10681M  | A               | 0.73                | CH3             | C(CH2/CH3/CH3)                         |   | CDCL3   |
| 9968M   | A               | 0.73                | CH3             | R5R6R6R6<C*(CH(CH2/CH3))/CH2>          |   | CDCL3   |
| 9985M   | A               | 0.73                | CH3             | R5R6R6R6<C*(CH(C(=O)-OH)/CH2)>         |   | CDCL3   |

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                                                | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|---------------------------------------------------------------------|---|---------|
| 878M    | A               | 0.73                | CH3             | SI (CL/CL/CH2)                                                      |   | CCL4    |
| 12792M  | A               | 0.73                | NH2             | CH2-CH2                                                             |   | CCL4    |
| 10830M  | B               | 0.73- 1.40          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 9953M   | D               | 0.73- 2.25          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 13449M  | A               | 0.74                | CH3             | C(CH2/CH3/CH3)                                                      |   | CDCL3   |
| 13060M  | A               | 0.74                | NH              | C(CH3/CH3/CH3)/CH2-CH2                                              |   | CDCL3   |
| 10404M  | B               | 0.74- 2.09          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 8168M   | C               | 0.75 APP.           | CHR             | R3<(CH2-R3)/HCH-HCH>                                                |   | CCL4    |
| 12728M  | A               | 0.75- 1.30          | CH2R            | R3(CH(C(=O)-A)/CH2)                                                 |   | CCL4    |
| 12726M  | A               | 0.75- 1.30          | CH2R            | R3(CH(C(=O)-A)/CH2)                                                 |   | CCL4    |
| 12725M  | A               | 0.75- 1.30          | CH2R            | R3(CH(C(=O)-R5S)/CH2)                                               |   | CCL4    |
| 7155M   | A               | 0.75                | CH3             | CH2-C                                                               |   | CCL4    |
| 12942M  | A               | 0.75                | CH3             | CH2-CH                                                              |   | DMSO-D6 |
| 2815M   | A               | 0.75                | CH3             | CH2-CH2                                                             |   | CCL4    |
| 1124M   | B               | 0.75                | CH3             | CH2-CH2                                                             |   | CDCL3   |
| 4145M   | A               | 0.75                | CH3             | CH2-C(=O)                                                           |   | DMSO-D6 |
| 1124M   | A               | 0.75                | CH3             | CH2-Q                                                               |   | CDCL3   |
| 1122M   | A               | 0.75                | CH3             | CH2-Q(A<-CH-CH-C(O-C(=O)-CH3))/CH2-CH3/A<-CH-CH-<br>C(O-C(=O)-CH3)) |   | CDCL3   |
| 1223M   | A               | 0.75                | CH3             | CH2-R5NA                                                            |   | CDCL3   |
| 2473M   | A               | 0.75                | CH3             | CH(CH2/CH2)                                                         |   | D2O     |
| 12957M  | A               | 0.75                | CH3             | CH(CH2/CH3)                                                         |   | CDCL3   |
| 10999M  | B               | 0.75                | CH3             | CH(CH2/CH3)                                                         |   | CDCL3   |
| 7732M   | B               | 0.75                | CH3             | CH(C/CH3)                                                           |   | D2O     |
| 6460M   | A               | 0.75                | CH3             | C(CH2/CH3/CH3)                                                      |   | CDCL3   |
| 8103M   | B               | 0.75- 1.05          | HCHR            | R3R5O<CH*-C(=O)/CH*-C(A/A)>                                         |   | CDCL3   |
| 8103M   | A               | 0.75- 1.05          | HCHR            | R3R5O<CH*-C(=O)/CH*-C(A/A)>                                         |   | CDCL3   |
| 8104M   | A               | 0.75                | HCHR            | R3R5O<CH*-C(=O)/CH*-C(O/A)>                                         |   | CDCL3   |
| 8174M   | B               | 0.75                | HCHR            | R3<CH(CH3)-CH(CH3)>                                                 |   | CCL4    |
| 9942M   | B               | 0.75- 1.10          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 9949M   | C               | 0.75- 2.25          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 4140M   | A               | 0.75- 2.10          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 5872M   | A               | 0.75- 2.10          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 11039M  | A               | 0.75- 2.12          |                 | UNSPECIFIED                                                         |   | DMSO-D6 |
| 2622M   | A               | 0.75- 2.26          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 5479M   | C               | 0.75- 1.90          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 3951M   | B               | 0.75- 2.16          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 12992M  | A               | 0.75- 2.67          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 8970M   | A               | 0.75- 1.00          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 13290M  | A               | 0.75- 2.16          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 10823M  | A               | 0.76                | CH3             | CH2-CH                                                              |   | CDCL3   |
| 2818M   | A               | 0.76                | CH3             | CH2-CH2                                                             |   | CCL4    |
| 3758M   | A               | 0.76                | CH3             | CH(CH2/CH3)                                                         |   | CDCL3   |
| 13266M  | A               | 0.76                | CH3             | CH(CH2/CH3)                                                         |   | CDCL3   |
| 5074M   | A               | 0.76                | CH3             | C(R6/CH/CH3)                                                        |   | CCL4    |
| 9944M   | A               | 0.76                | CH3             | R5R6R6R6<C*(CH(OH)/CH2)>                                            |   | CDCL3   |
| 9960M   | A               | 0.76                | CH3             | R5R6R6R6<C*(CH(OH/C(=O)-CH3)/CH2)>                                  |   | CDCL3   |
| 11875M  | A               | 0.76                | CH3             | R5R6R6R6<C*(CH(OH/C(=O)-CH3)/CH2)>                                  |   | CDCL3   |
| 3822M   | B               | 0.76- 2.17          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 5143M   | A               | 0.77                | CH3             | CH2-C                                                               |   | DMSO-D6 |
| 2147M   | A               | 0.77                | CH3             | CH2-CH                                                              |   | CCL4    |
| 11713M  | A               | 0.77                | CH3             | CH2-CH                                                              |   | CDCL3   |
| 11714M  | A               | 0.77                | CH3             | CH2-CH2                                                             |   | CDCL3   |
| 4210M   | A               | 0.77                | CH3             | CH2-Q                                                               |   | CDCL3   |
| 4918M   | A               | 0.77                | CH3             | C(R6/CH/CH3)                                                        |   | CCL4    |
| 11883M  | A               | 0.77                | CH3             | R5R6R6R6<C*(CH(OH)/CH2)>                                            |   | CDCL3   |
| 7886M   | A               | 0.77                | CH3             | R600<C(CH3)-HCH/HCH>                                                |   | CCL4    |
| 7886M   | B               | 0.77                | CH3             | R600<C(CH3)-HCH/HCH>                                                |   | CCL4    |
| 7207M   | A               | 0.77                | CH3             | SI(A/A/A)                                                           |   | CDCL3   |
| 8626M   | A               | 0.77- 2.11          |                 | UNSPECIFIED                                                         |   | CCL4    |
| 3145M   | B               | 0.77 APP.           |                 | UNSPECIFIED                                                         |   | CCL4    |
| 8971M   | D               | 0.77- 2.09          |                 | UNSPECIFIED                                                         |   | CDCL3   |
| 12711M  | A               | 0.78- 1.32          | CH2R            | R3(CH(C(=O)-A)/CH2)                                                 |   | CDCL3   |
| 4416M   | A               | 0.78                | CH3             | CH2-C                                                               |   | CCL4    |
| 5939M   | A               | 0.78                | CH3             | CH2-C                                                               |   | CCL4    |
| 6663M   | A               | 0.78                | CH3             | CH2-CH                                                              |   | CCL4    |
| 2360M   | A               | 0.78                | CH3             | CH2-CH                                                              |   | CCL4    |
| 2371M   | A               | 0.78                | CH3             | CH2-CH                                                              |   | CCL4    |
| 2417M   | A               | 0.78                | CH3             | CH2-CH2                                                             |   | CDCL3   |
| 3825M   | A               | 0.78                | CH3             | CH2-CH2                                                             |   | CDCL3   |
| 13101M  | A               | 0.78                | CH3             | CH2-CH2                                                             |   | DMSO-D6 |
| 1226M   | A               | 0.78                | CH3             | CH2-CH2                                                             |   | CDCL3   |
| 1226M   | A               | 0.78                | CH3             | CH2-R5NA                                                            |   | CDCL3   |
| 7711M   | A               | 0.78                | CH3             | CH2-R6NN                                                            |   | D2O     |
| 8873M   | B               | 0.78                | CH3             | CH2-R6NN                                                            |   | CDCL3   |
| 8873M   | A               | 0.78                | CH3             | CH2-R6NN                                                            |   | CDCL3   |
| 8785M   | A               | 0.78                | CH3             | CH2-R6NN                                                            |   | DMSO-D6 |
| 10824M  | A               | 0.78                | CH3             | CH(CH/CH3)                                                          |   | CDCL3   |
| 471M    | A               | 0.78                | CH3             | C(CH2/CH2/CH2)                                                      |   | CCL4    |
| 8920M   | A               | 0.78                | CH3             | C(CH2/CH3/CH3)                                                      |   | CDCL3   |
| 6461M   | A               | 0.78                | CH3             | C(CH2/CH3/CH3)                                                      |   | CDCL3   |

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS               | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|------------------------------------|---|---------|
| 7860M   | A               | 0.78                | CH3             | R5R5BI<C(CH3)-CH*/CH(CH2-C(=O))>   |   | CCL4    |
| 7861M   | A               | 0.78                | CH3             | R5R5BI<C(CH3)-CH*/CH(CH2-C(=O))>   |   | CCL4    |
| 7861M   | C               | 0.78                | CH3             | R5R5BI<C(CH3)-CH*/CH(CH2-C(=O))>   |   | CCL4    |
| 1351M   | A               | 0.78                | CH3             | R5R6R6R6<C*-C(OH/CH3)/CH2>         |   | CDCL3   |
| 9995M   | B               | 0.78                | CH3             | R6R6R6R5<C*(CH*/CH2)>              |   | CDCL3   |
| 9981M   | B               | 0.78                | CH3             | R6R6R6R5<C*(CH*/CH2)>              |   | CDCL3   |
| 1477M   | B               | 0.78                | CH3             | R6<C(CH3)-HCH/HCH>                 |   | CDCL3   |
| 1477M   | A               | 0.78                | CH3             | R6<C(CH3)-HCH/HCH>                 |   | CDCL3   |
| 10773M  | A               | 0.78                | CH3             | R6(CH-CH2/CH2)                     |   | CDCL3   |
| 749M    | A               | 0.78                | CH3             | R6(C(CH3)-CH2/CH2)                 |   | CDCL3   |
| 10788M  | A               | 0.78                | CH3             | SI(A/A/A)                          |   | CDCL3   |
| 3900M   | A               | 0.78                | NHR             | R6N<C(CH3/CH3)-HCH/C(CH3/CH3)-HCH> |   | CCL4    |
| 2543M   | A               | 0.78                | NH2             | CH2-R6                             |   | CCL4    |
| 3900M   | A               | 0.78 APP.           | NH2             | R6N<CH-HCH/HCH>                    |   | CCL4    |
| 5351M   | A               | 0.78- 2.52          |                 | UNSPECIFIED                        |   | CCL4    |
| 5469M   | C               | 0.78- 3.40          |                 | UNSPECIFIED                        |   | CDCL3   |
| 10185M  | A               | 0.78- 2.40          |                 | UNSPECIFIED                        |   | CCL4    |
| 5861M   | A               | 0.78- 2.28          |                 | UNSPECIFIED                        |   | D2O     |
| 8759M   | B               | 0.79                | CH2             | SI(CH3/CH3/CH3)/CH2-NH             |   | CDCL3   |
| 5156M   | A               | 0.79                | CH2             | SI(CH2/CH2/CH2)/CH(CH3/CH3)        |   | CCL4    |
| 8171M   | A               | 0.79                | CH3             | CH2-C                              |   | CCL4    |
| 7217M   | A               | 0.79                | CH3             | CH2-C                              |   | CDCL3   |
| 1879M   | A               | 0.79                | CH3             | CH2-C                              |   | CCL4    |
| 10263M  | A               | 0.79 APP.           | CH3             | CH2-C                              |   | CCL4    |
| 2374M   | A               | 0.79                | CH3             | CH2-CH                             |   | CCL4    |
| 13569M  | A               | 0.79                | CH3             | CH2-CH                             |   | CDCL3   |
| 11055M  | A               | 0.79                | CH3             | CH2-CH                             |   | CCL4    |
| 9298M   | A               | 0.79                | CH3             | CH2-CH2                            |   | CCL4    |
| 12925M  | A               | 0.79                | CH3             | CH2-CH2                            |   | DMSO-D6 |
| 2418M   | A               | 0.79                | CH3             | CH2-CH2                            |   | CCL4    |
| 7550M   | A               | 0.79                | CH3             | CH2-CH2                            |   | CDCL3   |
| 7622M   | A               | 0.79                | CH3             | CH2-CH2                            |   | CDCL3   |
| 1617M   | A               | 0.79                | CH3             | CH2-CH2                            |   | CCL4    |
| 11711M  | A               | 0.79                | CH3             | CH2-CH2                            |   | CDCL3   |
| 7656M   | A               | 0.79                | CH3             | CH2-O-C(=O)                        |   | CDCL3   |
| 1222M   | A               | 0.79                | CH3             | CH2-R5NA                           |   | CDCL3   |
| 7160M   | B               | 0.79                | CH3             | CH(C/CH3)                          |   | CDCL3   |
| 7160M   | A               | 0.79                | CH3             | CH(C/CH3)                          |   | CDCL3   |
| 10263M  | A               | 0.79 APP.           | CH3             | C(CH/CH2/CH3)                      |   | CCL4    |
| 13956M  | A               | 0.79                | CH3             | C(R6/CH2/CH3)                      |   | CDCL3   |
| 8171M   | A               | 0.79                | CH3             | C(R6/CH2/CH3)                      |   | CCL4    |
| 9952M   | A               | 0.79                | CH3             | R5R6R6R6<C*(CH(CH(OH/CH3)))/CH2>   |   | CDCL3   |
| 4142M   | A               | 0.79                | CH3             | R6<CH-CH2/CH2>                     |   | CDCL3   |
| 8114M   | A               | 0.79                | CH3             | R6<CH-CH2/CH2>                     |   | CDCL3   |
| 136M    | A               | 0.79                | NH              | CH2-CH/CH2-CH                      |   | CCL4    |
| 6775M   | B               | 0.79- 2.10          |                 | UNSPECIFIED                        |   | CDCL3   |
| 6037M   | A               | 0.79- 2.10          |                 | UNSPECIFIED                        |   | CCL4    |
| 9986M   | C               | 0.79- 2.45          |                 | UNSPECIFIED                        |   | CDCL3   |
| 13266M  | B               | 0.80- 1.75          | CH              | CH2-C/CH3/CH3                      |   | CDCL3   |
| 3821M   | B               | 0.80- 2.00          | CHR             | R6N<C(CH3)/CH2-CH2/CH2-CH2>        |   | CCL4    |
| 8163M   | C               | 0.80- 1.50          | CH2             | R3<CH-HCH/HCH>/CH3                 |   | CCL4    |
| 5234M   | D               | 0.80- 2.10          | CH2             | R5N<CH-C(A/A)/CH2>/CH2-C(=O)       |   | CDCL3   |
| 8752M   | B               | 0.80                | CH2-            | SI(CH3/CH3/CH3)/CH2-NH             |   | CDCL3   |
| 5155M   | A               | 0.80 APP.           | CH2             | SI(Q3/Q3/CH2)/CH2-CH2              |   | CCL4    |
| 12721M  | A               | 0.80- 1.40          | CH2R            | R3(CH(C(=O)-A)/CH2)                |   | CDCL3   |
| 12712M  | A               | 0.80- 1.40          | CH2R            | R3(CH(C(=O)-A)/CH2)                |   | CDCL3   |
| 3821M   | B               | 0.80- 2.00          | CH2R            | R6N<CH(CH3)-CH2/CH2-N(C(=O)-CH2)>  |   | CCL4    |
| 9968M   | D               | 0.80- 2.30          | CH2R            | R6R6R6R5<CH(OH)-CH2/CH2-C*(CH3)>   |   | CDCL3   |
| 9968M   | D               | 0.80- 2.30          | CH2R            | R6R6R6R5<C*(CH3)-CH*/CH2-CH(OH)>   |   | CDCL3   |
| 8177M   | B               | 0.80- 2.00          | CH2R            | R6<CH2-CH(CH3)/CH2-CH(CH3)>        |   | CCL4    |
| 8177M   | B               | 0.80- 2.00          | CH2R            | R6<CH(CH3)-C(=CH2)/CH2-CH2>        |   | CCL4    |
| 11367M  | A               | 0.80                | CH3             | CH-CH                              |   | CDCL3   |
| 397M    | A               | 0.80- 1.00          | CH3             | CH2-C                              |   | CCL4    |
| 10988M  | A               | 0.80- 1.17          | CH3             | CH2-C                              |   | CCL4    |
| 8400M   | B               | 0.80- 1.18          | CH3             | CH2-C                              |   | CDCL3   |
| 5075M   | A               | 0.80                | CH3             | CH2-C                              |   | CCL4    |
| 5144M   | A               | 0.80                | CH3             | CH2-C                              |   | DMSO-D6 |
| 11123M  | A               | 0.80                | CH3             | CH2-CH                             |   | CCL4    |
| 31M     | A               | 0.80                | CH3             | CH2-CH                             |   | CCL4    |
| 7773M   | A               | 0.80                | CH3             | CH2-CH                             |   | CDCL3   |
| 12941M  | A               | 0.80                | CH3             | CH2-CH                             |   | DMSO-D6 |
| 2572M   | A               | 0.80                | CH3             | CH2-CH                             |   | CCL4    |
| 2330M   | A               | 0.80                | CH3             | CH2-CH                             |   | CCL4    |
| 2475M   | A               | 0.80                | CH3             | CH2-CH2                            |   | D2O     |
| 397M    | A               | 0.80- 1.00          | CH3             | CH2-CH2                            |   | CCL4    |
| 10814M  | A               | 0.80                | CH3             | CH2-CH2                            |   | CDCL3   |
| 827M    | A               | 0.80                | CH3             | CH2-CH2                            |   | CDCL3   |
| 5682M   | A               | 0.80                | CH3             | CH2-CH2                            |   | CCL4    |
| 14046M  | B               | 0.80- 1.10          | CH3             | CH2-R3                             |   | DMSO-D6 |
| 8163M   | C               | 0.80- 1.50          | CH3             | CH2-R3                             |   | CCL4    |
| 4382M   | A               | 0.80                | CH3             | CH2-R5NN                           |   | CDCL3   |

: REPRESENTS TRIPLE BOND, ~ REPRESENTS AN ARROW AND &lt; AND &gt; REPRESENT BRACKETS.

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                        | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|---------------------------------------------|---|---------|
| 13477M  | A               | 0.80                | CH3             | CH2-R6N                                     |   | CDCL3   |
| 8910M   | A               | 0.80                | CH3             | CH(CH2/CH3)                                 |   | DMSO-D6 |
| 7157M   | A               | 0.80                | CH3             | CH(C/CH3)                                   |   | CDCL3   |
| 10988M  | A               | 0.80- 1.17          | CH3             | CH(C/CH3)                                   |   | CCL4    |
| 6784M   | A               | 0.80- 1.20          | CH3             | CH(R6/CH3)                                  |   | CCL4    |
| 11852M  | A               | 0.80                | CH3             | C(CH2/CH2/CH2)                              |   | CDCL3   |
| 8628M   | A               | 0.80                | CH3             | R4C(CH3)-CH(OH(CH3/OH))/CH(CH2-C(=O)-O)>    |   | DMSO-D6 |
| 9956M   | A               | 0.80                | CH3             | R5R6R6R6<C*(CH(O-C(=O)-CH2)/CH2)>           |   | CDCL3   |
| 9954M   | A               | 0.80                | CH3             | R5R6R6R6<C*(C(=O)/CH2)>                     |   | CDCL3   |
| 11902M  | A               | 0.80                | CH3             | R5R6R6R6(C*-CH*(CH(CH2/CH3)))               |   | CDCL3   |
| 11867M  | A               | 0.80                | CH3             | R5R6R6R6(C*-C(O-C(=O)-CH3/C(=O)-CH3)/CH2)   |   | CDCL3   |
| 6457M   | A               | 0.80                | CH3             | R5C(C(=O)-OH)-C(CH3/CH3)/CH2>               |   | DMSO-D6 |
| 4626M   | A               | 0.80                | CH3             | R6OOC(CH2-OH)-HCH/HCH>                      |   | CDCL3   |
| 13954M  | A               | 0.80- 1.10          | CH3             | R6R6OOSPI(CH-CH2/CH2)                       |   | CDCL3   |
| 13954M  | A               | 0.80- 1.10          | CH3             | R6R6OOSPI(C(CH3)-CH2/CH2)                   |   | CDCL3   |
| 9990M   | B               | 0.80                | CH3             | R6R6R6R5<C*(CH*/CH2)>                       |   | CDCL3   |
| 9954M   | B               | 0.80                | CH3             | R6R6R6R5<C*(CH*/CH2)>                       |   | CDCL3   |
| 9953M   | B               | 0.80                | CH3             | R6R6R6R5<C*(CH*/CH2)>                       |   | CDCL3   |
| 11902M  | D               | 0.80- 2.40          | CH3             | R6R6R6R5(C*-CH*/CH2)                        |   | CDCL3   |
| 6784M   | A               | 0.80- 1.20          | CH3             | R6<CH-CH2/CH2>                              |   | CCL4    |
| 10329M  | A               | 0.80                | CH3             | R6(CH-CH2/CH2)                              |   | CDCL3   |
| 2848M   | A               | 0.80                | CH3             | SI(CL/CL/Q3)                                |   | CCL4    |
| 14046M  | B               | 0.80- 1.10          | HCHR<br>OH      | R3(C(C(=O)-OH/CH2-CH3)-C(C(=O)-OH/CH2-CH3)) |   | DMSO-D6 |
| 3773M   | C               | 0.80- 2.00          |                 | C(R6/R3/R3)                                 |   | CCL4    |
| 11893M  | E               | 0.80- 2.10          |                 | UN                                          |   | CDCL3   |
| 11900M  | C               | 0.80- 2.10          |                 | UN                                          |   | CDCL3   |
| 11888M  | E               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11892M  | E               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11890M  | C               | 0.80- 2.05          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11870M  | C               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11878M  | C               | 0.80- 2.50          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11886M  | E               | 0.80- 2.40          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11868M  | C               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11874M  | C               | 0.80- 2.40          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11881M  | C               | 0.80- 2.70          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11896M  | C               | 0.80- 2.00          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11877M  | C               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11900M  | C               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11865M  | C               | 0.80- 2.40          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11899M  | E               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11893M  | E               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11863M  | D               | 0.80- 3.00          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11871M  | B               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11864M  | C               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11883M  | C               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11862M  | D               | 0.80- 3.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11889M  | C               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11887M  | E               | 0.80- 2.50          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11885M  | C               | 0.80- 2.70          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11891M  | D               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11884M  | C               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11866M  | C               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11869M  | D               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11867M  | D               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11880M  | C               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11872M  | D               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11875M  | C               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 8558M   | A               | 0.80- 3.10          |                 | UNSPECIFIED                                 |   | CCL4    |
| 2799M   | C               | 0.80- 2.15          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 8008M   | A               | 0.80- 1.90          |                 | UNSPECIFIED                                 |   | CCL4    |
| 8025M   | A               | 0.80- 3.70          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 7146M   | A               | 0.80- 2.29          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 11611M  | A               | 0.80- 2.00          |                 | UNSPECIFIED                                 |   | DMSO-D6 |
| 14028M  | A               | 0.80- 1.90          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 14521M  | A               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | DMSO-D6 |
| 7860M   | C               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CCL4    |
| 13137M  | A               | 0.80- 2.90          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 9940M   | D               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 9941M   | E               | 0.80- 2.22          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 9939M   | E               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 9947M   | E               | 0.80- 2.70          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 8180M   | B               | 0.80- 2.30          |                 | UNSPECIFIED                                 |   | CCL4    |
| 13954M  | B               | 0.80- 2.40          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 13945M  | A               | 0.80- 2.00          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 13998M  | A               | 0.80- 2.60          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 5353M   | A               | 0.80- 2.20          |                 | UNSPECIFIED                                 |   | CCL4    |
| 3470M   | A               | 0.80- 1.60          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 1838M   | C               | 0.80- 2.50          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 13495M  | C               | 0.80- 2.60          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 14092M  | A               | 0.80- 2.10          |                 | UNSPECIFIED                                 |   | CDCL3   |
| 8098M   | B               | 0.80- 2.50          |                 | UNSPECIFIED                                 |   | CCL4    |

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PAGE

8

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                 | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|--------------------------------------|---|---------|
| 12955M  | A               | 0.80- 1.10          |                 | UNSPECIFIED                          |   | CDCL3   |
| 12966M  | B               | 0.80- 1.10          |                 | UNSPECIFIED                          |   | CCL4    |
| 12048M  | A               | 0.80- 2.40          |                 | UNSPECIFIED                          |   | CDCL3   |
| 4440M   | A               | 0.80- 2.28          |                 | UNSPECIFIED                          |   | DMSO-D6 |
| 811M    | A               | 0.80- 2.00          |                 | UNSPECIFIED                          |   | CDCL3   |
| 5519M   | B               | 0.80- 2.25          |                 | UNSPECIFIED                          |   | CDCL3   |
| 14143M  | A               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CDCL3   |
| 9992M   | D               | 0.80- 2.30          |                 | UNSPECIFIED                          |   | CDCL3   |
| 13747M  | B               | 0.80- 2.10          |                 | UNSPECIFIED                          |   | CDCL3   |
| 11861M  | D               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CDCL3   |
| 11858M  | E               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CDCL3   |
| 11860M  | D               | 0.80- 2.30          |                 | UNSPECIFIED                          |   | CDCL3   |
| 11859M  | D               | 0.80- 2.30          |                 | UNSPECIFIED                          |   | CDCL3   |
| 6937M   | A               | 0.80- 2.02          |                 | UNSPECIFIED                          |   | CCL4    |
| 11924M  | B               | 0.80- 1.90          |                 | UNSPECIFIED                          |   | CCL4    |
| 11931M  | A               | 0.80- 2.10          |                 | UNSPECIFIED                          |   | CDCL3   |
| 13197M  | A               | 0.80- 1.90          |                 | UNSPECIFIED                          |   | DMSO-D6 |
| 2702M   | A               | 0.80- 2.72          |                 | UNSPECIFIED                          |   | CDCL3   |
| 12759M  | A               | 0.80- 2.60          |                 | UNSPECIFIED                          |   | CCL4    |
| 9008M   | B               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CDCL3   |
| 9725M   | C               | 0.80- 2.32          |                 | UNSPECIFIED                          |   | CDCL3   |
| 13015M  | A               | 0.80- 2.00          |                 | UNSPECIFIED                          |   | DMSO-D6 |
| 12806M  | B               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CCL4    |
| 13252M  | A               | 0.80- 2.20          |                 | UNSPECIFIED                          |   | CCL4    |
| 12334M  | A               | 0.80- 2.10          |                 | UNSPECIFIED                          |   | CDCL3   |
| 12283M  | A               | 0.80- 2.30          |                 | UNSPECIFIED                          |   | CDCL3   |
| 291M    | A               | 0.80- 2.10          |                 | UNSPECIFIED                          |   | CCL4    |
| 1313M   | A               | 0.80- 2.15          |                 | UNSPECIFIED                          |   | CDCL3   |
| 11256M  | A               | 0.80- 2.10          |                 | UNSPECIFIED                          |   | CCL4    |
| 9311M   | B               | 0.81- 1.74          | CHR             | R60<(CH3)/CH2-HCH/CH2-HCH            |   | CCL4    |
| 9523M   | A               | 0.81                | CH2             | SN(CH2/CH2/CH2)/CH2-CH3              |   | CCL4    |
| 9311M   | B               | 0.81- 1.74          | CH2R            | R60<CH(CH3)-CH2/HCH-O>               |   | CCL4    |
| 6159M   | B               | 0.81                | CH3             | CH2-C                                |   | CCL4    |
| 11956M  | A               | 0.81                | CH3             | CH2-C                                |   | DMSO-D6 |
| 3961M   | A               | 0.81                | CH3             | CH2-C                                |   | CCL4    |
| 10828M  | A               | 0.81                | CH3             | CH2-CH                               |   | CDCL3   |
| 6108M   | A               | 0.81                | CH3             | CH2-CH                               |   | CCL4    |
| 7921M   | A               | 0.81                | CH3             | CH2-CH                               |   | CCL4    |
| 2805M   | A               | 0.81                | CH3             | CH2-CH                               |   | CCL4    |
| 3619M   | A               | 0.81                | CH3             | CH2-CH2                              |   | CCL4    |
| 6869M   | A               | 0.81                | CH3             | CH2-CH2                              |   | CCL4    |
| 777M    | A               | 0.81                | CH3             | CH2-CH2                              |   | CDCL3   |
| 778M    | A               | 0.81                | CH3             | CH2-CH2                              |   | CDCL3   |
| 10921M  | A               | 0.81                | CH3             | CH2-CH2                              |   | CDCL3   |
| 3961M   | A               | 0.81                | CH3             | CH2-CH2                              |   | CCL4    |
| 1221M   | A               | 0.81                | CH3             | CH2-R5NA                             |   | CDCL3   |
| 8347M   | A               | 0.81                | CH3             | CH2-R6A                              |   | CDCL3   |
| 13476M  | A               | 0.81                | CH3             | CH2-R6N                              |   | CDCL3   |
| 13473M  | A               | 0.81                | CH3             | CH2-R6N                              |   | CDCL3   |
| 10822M  | A               | 0.81                | CH3             | CH(C/CH3)                            |   | CDCL3   |
| 10819M  | A               | 0.81                | CH3             | CH(C/CH3)                            |   | CDCL3   |
| 10576M  | A               | 0.81                | CH3             | R3R5RSTR1(C*-CH*/CH*/C(CH2-CH2/CH3)) |   | CCL4    |
| 10576M  | B               | 0.81                | CH3             | R5R5R3TR1(C(CH2-CH2)-C*(CH3)/CH*)    |   | CCL4    |
| 11900M  | A               | 0.81                | CH3             | R5R6R6R6(C*-CH(OH)/CH2)              |   | CDCL3   |
| 11882M  | A               | 0.81                | CH3             | R5R6R6R6(C*-CH(O-C(=O)-CH2)/CH2)     |   | CDCL3   |
| 11896M  | A               | 0.81                | CH3             | R5R6R6R6(C*-C(=O)/CH2)               |   | CDCL3   |
| 9962M   | B               | 0.81                | CH3             | R6R6R6R5<C*(CH*/CH2)>                |   | CDCL3   |
| 9983M   | B               | 0.81                | CH3             | R6R6R6R5<C*(CH*/CH2)>                |   | CDCL3   |
| 11896M  | B               | 0.81                | CH3             | R6R6R6R5(C*-CH*/CH2)                 |   | CDCL3   |
| 5050M   | A               | 0.81                | HCHR            | R3<C(C(OH/A/CH3)/CH3)-HCH>           |   | CCL4    |
| 5050M   | B               | 0.81                | HCHR            | R3<C(C(OH/A/CH3)/CH3)-HCH>           |   | CCL4    |
| 5680M   | A               | 0.81 APP.           |                 | UNSPECIFIED                          |   | CCL4    |
| 1653M   | A               | 0.81 APP.           |                 | UNSPECIFIED                          |   | CDCL3   |
| 3921M   | A               | 0.81                |                 | UNSPECIFIED                          |   | CCL4    |
| 9159M   | A               | 0.82- 1.49          | CHR             | R3<(C:N)/CH2-CH2>                    |   | CCL4    |
| 3137M   | A               | 0.82                | CH2             | CH2-R5AA/CH2-C:C                     |   | DMSO-D6 |
| 8760M   | B               | 0.82                | CH2             | SI(CH3/CH3/CH3)/CH2-NH               |   | CDCL3   |
| 8751M   | B               | 0.82                | CH2             | SI(CH3/CH3/CH3)/CH2-NH               |   | CDCL3   |
| 9159M   | A               | 0.82- 1.49          | CH2R            | R3<CH(C:N)-CH2>                      |   | CCL4    |
| 10614M  | A               | 0.82                | CH2R            | R5R5B1(CH*(Q2/CH2))                  |   | CDCL3   |
| 11448M  | A               | 0.82                | CH3             | CH2-C                                |   | CDCL3   |
| 7915M   | A               | 0.82                | CH3             | CH2-C                                |   | CCL4    |
| 5145M   | A               | 0.82                | CH3             | CH2-C                                |   | CDCL3   |
| 2750M   | A               | 0.82                | CH3             | CH2-CH                               |   | CCL4    |
| 10953M  | A               | 0.82                | CH3             | CH2-CH                               |   | CCL4    |
| 2687M   | A               | 0.82                | CH3             | CH2-CH                               |   | CCL4    |
| 14144M  | A               | 0.82                | CH3             | CH2-CH                               |   | CDCL3   |
| 11751M  | A               | 0.82                | CH3             | CH2-CH                               |   | CDCL3   |
| 5257M   | A               | 0.82                | CH3             | CH2-CH2                              |   | CCL4    |
| 1634M   | A               | 0.82                | CH3             | CH2-CH2                              |   | CCL4    |
| 4853M   | A               | 0.82                | CH3             | CH2-CH2                              |   | CDCL3   |

: REPRESENTS TRIPLE BOND, ~ REPRESENTS AN ARROW AND &lt; AND &gt; REPRESENT BRACKETS.

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                       | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|--------------------------------------------|---|---------|
| 3877M   | A               | 0.82                | CH3             | CH2-CH2                                    |   | CCL4    |
| 5263M   | A               | 0.82                | CH3             | CH2-CH2                                    |   | CCL4    |
| 5448M   | A               | 0.82 APP.           | CH3             | CH2-CH2                                    |   | CDCL3   |
| 12051M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | TFA     |
| 12944M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 12946M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 12406M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 12933M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 10565M  | A               | 0.82                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 7156M   | A               | 0.82                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 7711M   | B               | 0.82                | CH3             | CH2-CH2                                    |   | D2O     |
| 12957M  | B               | 0.82                | CH3             | CH(CH2/CH3)                                |   | CDCL3   |
| 10263M  | B               | 0.82                | CH3             | CH(C/CH3)                                  |   | CCL4    |
| 5475M   | A               | 0.82- 1.12          | CH3             | CH(R5N/CH3)                                |   | CCL4    |
| 4384M   | A               | 0.82                | CH3             | C(CH/CH2/CH3)                              |   | CCL4    |
| 8672M   | A               | 0.82                | CH3             | C(CH/CH3/CH3)                              |   | CCL4    |
| 2707M   | A               | 0.82                | CH3             | R5R5BI<C(CH3)-C*(CH3)/CH*>                 |   | CDCL3   |
| 6395M   | A               | 0.82                | CH3             | R5R5BI<C(CH3)-C*(CH3)/CH*>                 |   | CDCL3   |
| 6395M   | C               | 0.82                | CH3             | R5R5BI<C(CH3)-C*(CH3)/CH*>                 |   | CDCL3   |
| 524M    | A               | 0.82                | CH3             | R5R5BI(C(CH3)-C*(CH3)/CH*)                 |   | CCL4    |
| 30M     | A               | 0.82                | CH3             | R5R5BI(C*-C(=O)/C/CH2)                     |   | CCL4    |
| 30M     | B               | 0.82                | CH3             | R5R5BI(C-C*/CH*/CH3)                       |   | CCL4    |
| 30M     | C               | 0.82                | CH3             | R5R5BI(C-C*/CH*/CH3)                       |   | CCL4    |
| 669M    | B               | 0.82                | CH3             | R5R5BI(C-C*/CH*/CH3)                       |   | D2O     |
| 669M    | A               | 0.82                | CH3             | R5R5BI(C-C*/CH*/CH3)                       |   | D2O     |
| 9994M   | B               | 0.82                | CH3             | R6R6R6R5<C*(CH*/CH2)>                      |   | CDCL3   |
| 2909M   | A               | 0.82                | CH3             | R6R6R6TRI<C*(CH2/CH2/CH2)>                 |   | CDCL3   |
| 2910M   | A               | 0.82                | CH3             | R6R6R6TRI<C*-CH2/CH2/CH2>                  |   | CDCL3   |
| 9725M   | A               | 0.82                | CH3             | R6<CH-CH2/CH2>                             |   | CDCL3   |
| 1270M   | A               | 0.82                | CH3             | SN(=S/CH3)                                 |   | CCL4    |
| 7435M   | A               | 0.82                | NH              | R6<CH-CH2/CH2>/CH2-CH3                     |   | CCL4    |
| 5388M   | A               | 0.82- 1.98          |                 | UNSPECIFIED                                |   | CDCL3   |
| 9705M   | A               | 0.82- 2.29          |                 | UNSPECIFIED                                |   | CDCL3   |
| 13851M  | A               | 0.82- 2.15          |                 | UNSPECIFIED                                |   | TFA     |
| 10444M  | A               | 0.82- 2.07          |                 | UNSPECIFIED                                |   | CDCL3   |
| 6234M   | A               | 0.82- 2.00          |                 | UNSPECIFIED                                |   | CCL4    |
| 10999M  | C               | 0.83- 1.59          | CH              | CH2-CH2/CH3/CH3                            |   | CDCL3   |
| 3913M   | B               | 0.83- 1.50          | CHR             | R3<C(OH/A/R3))/CH2-CH2>                    |   | CCL4    |
| 2831M   | A               | 0.83- 2.33          | CH2R            | R6<CH2-CH(OH)/CH2-CH2>                     |   | CDCL3   |
| 2831M   | A               | 0.83- 2.33          | CH2R            | R6<CH(OH)-CH(OH)/CH2-CH2>                  |   | CDCL3   |
| 13282M  | A               | 0.83- 2.20          | CH2R            | R6(CH2-CH2/CH2-CH2)                        |   | TFA     |
| 13282M  | A               | 0.83- 2.20          | CH2R            | R6(CH2-CH(NH-SO3H)/CH2-CH2)                |   | TFA     |
| 13269M  | A               | 0.83                | CH3             | CH2-C                                      |   | CCL4    |
| 7344M   | A               | 0.83                | CH3             | CH2-C                                      |   | C3D6O   |
| 9454M   | A               | 0.83                | CH3             | CH2-C                                      |   | CDCL3   |
| 10436M  | A               | 0.83                | CH3             | CH2-C                                      |   | CDCL3   |
| 4562M   | A               | 0.83                | CH3             | CH2-CH                                     |   | CCL4    |
| 11056M  | A               | 0.83                | CH3             | CH2-CH                                     |   | CCL4    |
| 7929M   | A               | 0.83                | CH3             | CH2-CH                                     |   | CCL4    |
| 4054M   | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 12207M  | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 10566M  | A               | 0.83                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 5123M   | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 1473M   | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 11677M  | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 2875M   | A               | 0.83                | CH3             | CH2-CH2                                    |   | CCL4    |
| 6480M   | A               | 0.83                | CH3             | CH2-CH2                                    |   | CDCL3   |
| 12932M  | A               | 0.83                | CH3             | CH2-CH2                                    |   | DMSO-D6 |
| 13596M  | A               | 0.83                | CH3             | CH2-R4N                                    |   | DMSO-D6 |
| 7681M   | A               | 0.83                | CH3             | CH2-R5NN                                   |   | DMSO-D6 |
| 11003M  | A               | 0.83                | CH3             | CH2-R6NN                                   |   | CDCL3   |
| 13097M  | A               | 0.83                | CH3             | CH2-R6NO                                   |   | DMSO-D6 |
| 5056M   | A               | 0.83                | CH3             | CH(CH2/CH2)                                |   | CDCL3   |
| 8672M   | B               | 0.83                | CH3             | CH(C/CH3)                                  |   | CCL4    |
| 443M    | A               | 0.83                | CH3             | HCH-CH                                     |   | CCL4    |
| 6023M   | B               | 0.83                | CH3             | R5R5BI<C(C*/CH*/CH3)>                      |   | CCL4    |
| 6023M   | A               | 0.83                | CH3             | R5R5BI<C(C*/CH*/CH3)>                      |   | CCL4    |
| 6023M   | C               | 0.83                | CH3             | R5R5BI<C(C/CH/CH2)>                        |   | CCL4    |
| 10781M  | A               | 0.83                | CH3             | R5R5BI(C(CH3)-C*(HCH-SO3H)/CH*)            |   | D2O     |
| 12190M  | A               | 0.83                | HCHR            | R5R5BI R3OR5R3O(CH*(CH*/CH*)/CH*(CH*/CH*)) |   | CDCL3   |
| 4024M   | A               | 0.83                |                 | CH2-R6A                                    |   | CDCL3   |
| 2181M   | A               | 0.83- 2.17          |                 | UNSPECIFIED                                |   | CDCL3   |
| 7M      | A               | 0.83- 2.43          |                 | UNSPECIFIED                                |   | CCL4    |
| 1355M   | B               | 0.83- 2.90          |                 | UNSPECIFIED                                |   | CCL4    |
| 9988M   | C               | 0.83- 2.42          |                 | UNSPECIFIED                                |   | CDCL3   |
| 9979M   | C               | 0.83- 2.67          |                 | UNSPECIFIED                                |   | CDCL3   |
| 9987M   | C               | 0.83- 2.60          |                 | UNSPECIFIED                                |   | CDCL3   |
| 13908M  | A               | 0.83- 1.90          |                 | UNSPECIFIED                                |   | DMSO-D6 |
| 5243M   | A               | 0.83- 2.25          |                 | UNSPECIFIED                                |   | D2O     |
| 6080M   | A               | 0.84                | CH3             | CH2-C                                      |   | D2O     |
| 6277M   | A               | 0.84                | CH3             | CH2-C                                      |   | CCL4    |

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS                               | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|----------------------------------------------------|---|---------|
| 6277M   | A               | 0.84                | CH3             | CH2-CH                                             |   | CCL4    |
| 2572M   | B               | 0.84                | CH3             | CH2-CH                                             |   | CCL4    |
| 2578M   | A               | 0.84                | CH3             | CH2-CH                                             |   | CCL4    |
| 12229M  | A               | 0.84                | CH3             | CH2-CH                                             |   | CDCL3   |
| 955M    | A               | 0.84                | CH3             | CH2-CH                                             |   | CCL4    |
| 5681M   | A               | 0.84 APP.           | CH3             | CH2-CH                                             |   | CCL4    |
| 3616M   | A               | 0.84                | CH3             | CH2-CH2                                            |   | CCL4    |
| 5681M   | A               | 0.84 APP.           | CH3             | CH2-CH2                                            |   | CCL4    |
| 12049M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | TFA     |
| 12021M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 946M    | A               | 0.84                | CH3             | CH2-CH2                                            |   | CCL4    |
| 10987M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | CCL4    |
| 12935M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 12927M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 12937M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 14571M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 5268M   | A               | 0.84                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 4831M   | A               | 0.84                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 3219M   | A               | 0.84                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 13016M  | A               | 0.84                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 876M    | A               | 0.84 APP.           | CH3             | CH2-CH2                                            |   | CCL4    |
| 9000M   | A               | 0.84                | CH3             | CH2-R5NN                                           |   | DMSO-D6 |
| 13474M  | A               | 0.84                | CH3             | CH2-R6N                                            |   | CDCL3   |
| 5048M   | A               | 0.84                | CH3             | CH(CH2/CH2)                                        |   | CDCL3   |
| 11886M  | B               | 0.84                | CH3             | CH(CH2/CH3)                                        |   | CDCL3   |
| 10679M  | A               | 0.84                | CH3             | C(CH/CH2/CH3)                                      |   | DMSO-D6 |
| 4236M   | A               | 0.84                | CH3             | R5R5BI<C(C*/CH*/CH3)>                              |   | CCL4    |
| 3407M   | A               | 0.84                | CH3             | R6<CH-CH(CH3)/CH2>                                 |   | CCL4    |
| 11689M  | A               | 0.84                | HCHR            | R5R5BI[R3O(CH*(CH*/CH2)/CH*(CH*(C(=O)-O-CH2)/CH*)] |   | CCL4    |
| 2974M   | A               | 0.84- 2.25          |                 | UNSPECIFIED                                        |   | TFA     |
| 9951M   | C               | 0.84- 3.00          |                 | UNSPECIFIED                                        |   | CDCL3   |
| 4133M   | A               | 0.85                | CH3             | CH2-C                                              |   | CDCL3   |
| 6910M   | A               | 0.85                | CH3             | CH2-C                                              |   | CCL4    |
| 5938M   | A               | 0.85                | CH3             | CH2-C                                              |   | CCL4    |
| 3925M   | A               | 0.85                | CH3             | CH2-C                                              |   | CCL4    |
| 13538M  | A               | 0.85                | CH3             | CH2-C                                              |   | D2O     |
| 11464M  | A               | 0.85                | CH3             | CH2-CH                                             |   | CDCL3   |
| 848M    | A               | 0.85                | CH3             | CH2-CH                                             |   | CCL4    |
| 6293M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 11362M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 10171M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 11030M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 3958M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 3955M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 3441M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 10882M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | D2O     |
| 5261M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 5251M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 13161M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 5191M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 4123M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CDCL3   |
| 2766M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 2747M   | A               | 0.85                | CH3             | CH2-CH2                                            |   | CCL4    |
| 12938M  | A               | 0.85                | CH3             | CH2-CH2                                            |   | DMSO-D6 |
| 9744M   | A               | 0.85                | CH3             | CH2-O-C(=O)                                        |   | CDCL3   |
| 9744M   | B               | 0.85                | CH3             | CH2-O-C(=O)                                        |   | CDCL3   |
| 1923M   | A               | 0.85                | CH3             | CH2-R6N                                            |   | CDCL3   |
| 1121M   | A               | 0.85                | CH3             | CH2-R6NN                                           |   | CDCL3   |
| 1551M   | A               | 0.85                | CH3             | CH2-R6R6NBI                                        |   | CDCL3   |
| 1400M   | A               | 0.85                | CH3             | CH2-R800                                           |   | CCL4    |
| 7113M   | A               | 0.85                | CH3             | CH(CH2/CH3)                                        |   | CDCL3   |
| 9968M   | B               | 0.85 APP.           | CH3             | CH(CH2/CH3)                                        |   | CDCL3   |
| 3415M   | A               | 0.85                | CH3             | CH(CH2/CH3)                                        |   | CCL4    |
| 5074M   | B               | 0.85                | CH3             | CH(C/CH3)                                          |   | CCL4    |
| 10818M  | A               | 0.85                | CH3             | CH(N/CH3)                                          |   | CDCL3   |
| 13695M  | A               | 0.85                | CH3             | CH(R5NN/CH3)                                       |   | DMSO-D6 |
| 9968M   | B               | 0.85 APP.           | CH3             | CH(R5R6R6/CH2)                                     |   | CDCL3   |
| 11717M  | A               | 0.85                | CH3             | C(CH2/CH2/CH3)                                     |   | CDCL3   |
| 7915M   | B               | 0.85                | CH3             | C(CH2/CH2/CH3)                                     |   | CCL4    |
| 3413M   | A               | 0.85                | CH3             | C(CH2/CH3/CH3)                                     |   | CCL4    |
| 2766M   | A               | 0.85                | CH3             | C(CH/CH3/CH3)                                      |   | CCL4    |
| 2502M   | A               | 0.85                | CH3             | C(CH/CH3/CH3)                                      |   | CCL4    |
| 3955M   | A               | 0.85                | CH3             | C(CH/CH3/CH3)                                      |   | CCL4    |
| 3958M   | A               | 0.85                | CH3             | C(CH/CH3/CH3)                                      |   | CCL4    |
| 3406M   | A               | 0.85 APP.           | CH3             | C(HCH/CH3/CH3)                                     |   | CCL4    |
| 9008M   | A               | 0.85                | CH3             | C(R6/CH3/CH3)                                      |   | CDCL3   |
| 3406M   | A               | 0.85 APP.           | CH3             | HCH-C                                              |   | CCL4    |
| 5050M   | C               | 0.85                | CH3             | R3<C(C1OH/A/CH3))-HCH/HCH>                         |   | CCL4    |
| 30M     | A               | 0.85                | CH3             | R5R5BI(C-C(=O)/C/CH2)                              |   | CCL4    |
| 30M     | B               | 0.85                | CH3             | R5R5BI(C-C*/CH*/CH3)                               |   | CCL4    |
| 30M     | C               | 0.85                | CH3             | R5R5BI(C-C*/CH*/CH3)                               |   | CCL4    |

: REPRESENTS TRIPLE BOND, ~ REPRESENTS AN ARROW AND &lt; AND &gt; REPRESENT BRACKETS.

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS             | S | SOLVENT   |
|---------|-----------------|---------------------|-----------------|----------------------------------|---|-----------|
| 9977M   | A               | 0.85                | CH3             | R5R6R6R6<C*(CH(O-C(=O)-R6)/CH2)> |   | CDCL3     |
| 9954M   | A               | 0.85                | CH3             | R5R6R6R6<C*(C(=O)/CH2)>          |   | CDCL3     |
| 11923M  | A               | 0.85- 1.23          | CH3             | R6NN(C-NH/CH(CH3))               |   | CDCL3     |
| 1690M   | A               | 0.85                | CH3             | R6OOP<C(CH3)-CH2/CH2>            |   | CCL4      |
| 1699M   | C               | 0.85                | CH3             | R6OOP<C(CH3)-CH2/CH2>            |   | CCL4      |
| 1699M   | A               | 0.85                | CH3             | R6OOP<C(CH3)-CH2/CH2>            |   | CCL4      |
| 1690M   | B               | 0.85                | CH3             | R6OOP<C(CH3)-CH2/CH2>            |   | CCL4      |
| 5153M   | A               | 0.85                | CH3             | R6R6BI<C*-C(=O)/CH2/CH2>         |   | CCL4      |
| 9954M   | B               | 0.85                | CH3             | R6R6R6R5<C*(CH*/CH2)>            |   | CDCL3     |
| 9982M   | B               | 0.85                | CH3             | R6R6R6R5<C*(CH*/CH2)>            |   | CDCL3     |
| 9986M   | B               | 0.85                | CH3             | R6R6R6R5<C*(CH*/CH2)>            |   | CDCL3     |
| 9985M   | B               | 0.85                | CH3             | R6R6R6R5<C*(CH*/CH2)>            |   | CDCL3     |
| 9995M   | C               | 0.85- 2.00          |                 | UNSPECIFIED                      |   | CDCL3     |
| 9970M   | C               | 0.85- 2.51          |                 | UNSPECIFIED                      |   | CDCL3     |
| 9999M   | D               | 0.85- 2.60          |                 | UNSPECIFIED                      |   | CDCL3     |
| 9819M   | A               | 0.85- 2.11          |                 | UNSPECIFIED                      |   | CCL4      |
| 11368M  | A               | 0.85- 2.00          |                 | UNSPECIFIED                      |   | CDCL3     |
| 12969M  | D               | 0.85- 2.10          |                 | UNSPECIFIED                      |   | CDCL3     |
| 4132M   | A               | 0.85- 2.25          |                 | UNSPECIFIED                      |   | CDCL3     |
| 725M    | A               | 0.85- 2.00          |                 | UNSPECIFIED                      |   | CCL4      |
| 1047M   | A               | 0.85- 2.30          |                 | UNSPECIFIED                      |   | CDCL3     |
| 7416M   | A               | 0.86- 1.80          | CHR             | R6N<(CH2-A)/CH2-HCH/CH2-HCH>     |   | CCL4      |
| 7416M   | A               | 0.86- 1.80          | CH2R            | R6N<CH(CH2-A)-CH2/HCH-NH>        |   | CCL4      |
| 4274M   | A               | 0.86                | CH3             | CH2-C                            |   | CCL4      |
| 11492M  | A               | 0.86                | CH3             | CH2-CH                           |   | CDCL3     |
| 4348M   | A               | 0.86                | CH3             | CH2-CH                           |   | CCL4      |
| 12436M  | A               | 0.86                | CH3             | CH2-CH                           |   | CCL4      |
| 12132M  | A               | 0.86                | CH3             | CH2-CH                           |   | CDCL3     |
| 14300M  | A               | 0.86                | CH3             | CH2-CH                           |   | CDCL3     |
| 14301M  | A               | 0.86                | CH3             | CH2-CH                           |   | CDCL3     |
| 3416M   | A               | 0.86                | CH3             | CH2-CH                           |   | CCL4      |
| 13111M  | A               | 0.86                | CH3             | CH2-CH2                          |   | DMSO-D6   |
| 2857M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 4431M   | A               | 0.86                | CH3             | CH2-CH2                          |   | DMSO-D6   |
| 788M    | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 3826M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 5606M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CCL4      |
| 2336M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 383M    | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 6677M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 10881M  | A               | 0.86                | CH3             | CH2-CH2                          |   | D2O       |
| 4523M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CCL4      |
| 6292M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 6263M   | A               | 0.86                | CH3             | CH2-CH2                          |   | CDCL3     |
| 8544M   | A               | 0.86                | CH3             | CH2-NH                           |   | CDCL3     |
| 8926M   | A               | 0.86                | CH3             | CH2-O-C(=O)                      |   | CDCL3     |
| 2576M   | A               | 0.86                | CH3             | CH2-R6                           |   | CCL4      |
| 5270M   | A               | 0.86                | CH3             | CH(CH2/CH2)                      |   | CCL4      |
| 4233M   | A               | 0.86                | CH3             | CH(CH2/CH2)                      |   | CCL4      |
| 5176M   | A               | 0.86                | CH3             | CH(CH2/CH2)                      |   | CCL4      |
| 10746M  | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CCL4      |
| 52M     | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CCL4      |
| 5176M   | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CCL4      |
| 5682M   | B               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CCL4      |
| 4233M   | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CCL4      |
| 1645M   | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CDCL3     |
| 5620M   | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CDCL3     |
| 5425M   | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CDCL3     |
| 12299M  | A               | 0.86                | CH3             | CH(CH2/CH3)                      |   | CDCL3     |
| 10260M  | A               | 0.86                | CH3             | CH(CH/CH3)                       |   | CCL4      |
| 10828M  | B               | 0.86                | CH3             | CH(C/CH2)                        |   | CDCL3     |
| 4274M   | A               | 0.86                | CH3             | CH(C/CH3)                        |   | CCL4      |
| 381M    | A               | 0.86                | CH3             | C(A/CH3/CH3)                     |   | CL2C-CCl2 |
| 8144M   | A               | 0.86                | CH3             | C(CH2/CH2/CH2)                   |   | CDCL3     |
| 6022M   | A               | 0.86                | CH3             | C(CH2/CH2/CH2)                   |   | DMSO-D6   |
| 9941M   | B               | 0.86                | CH3             | C(CH2/CH3)                       |   | CDCL3     |
| 9276M   | A               | 0.86                | CH3             | R4<C(CH3)-CH(OH)/CH(OH)>         |   | DMSO-D6   |
| 1363M   | A               | 0.86                | CH3             | R5R6R6R6R5NN<C*-C(OH/CH3)/CH2>   |   | TFA       |
| 11897M  | A               | 0.86                | CH3             | R5R6R6R6(C*-CH(O-C(=O)-CH2)/CH2) |   | CDCL3     |
| 367M    | A               | 0.86                | CH3             | R6OOP(C(CH3)-CH2/CH2-O)          |   | CDCL3     |
| 367M    | C               | 0.86                | CH3             | R6OOP(C(CH3)-CH2/CH2-O)          |   | CDCL3     |
| 2847M   | A               | 0.86                | CH3             | SI(CL/CL/H)                      |   | CCL4      |
| 4263M   | A               | 0.86                | NH              | CH2-Q2/CH2-CH3                   |   | CCL4      |
| 2507M   | B               | 0.87- 2.24          | CHR             | R6N<(CH2-NH2)/CH2-CH2/CH2-CH2>   |   | CDCL3     |
| 2507M   | B               | 0.87- 2.24          | CH2R            | R6N<CH(CH2-NH2)-CH2/CH2-NH>      |   | CDCL3     |
| 13955M  | A               | 0.87 APP.           | CH3             | CH2-C                            |   | CDCL3     |
| 3875M   | A               | 0.87 APP.           | CH3             | CH2-C                            |   | CCL4      |
| 3976M   | A               | 0.87                | CH3             | CH2-C                            |   | CCL4      |
| 6867M   | A               | 0.87                | CH3             | CH2-C                            |   | D2O       |
| 6278M   | A               | 0.87                | CH3             | CH2-C                            |   | CCL4      |
| 3187M   | A               | 0.87                | CH3             | CH2-CH                           |   | CCL4      |

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS              | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|-----------------------------------|---|---------|
| 2815M   | B               | 0.87                | CH3             | CH2-CH                            |   | CCL4    |
| 8943M   | A               | 0.87                | CH3             | CH2-CH                            |   | D2O     |
| 6641M   | A               | 0.87                | CH3             | CH2-CH                            |   | CCL4    |
| 6104M   | A               | 0.87                | CH3             | CH2-CH2                           |   | DMSO-D6 |
| 2875M   | B               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2850M   | A               | 0.87 APP.           | CH3             | CH2-CH2                           |   | CCL4    |
| 4426M   | A               | 0.87                | CH3             | CH2-CH2                           |   | DMSO-D6 |
| 3135M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 793M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 28M     | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 5311M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 5263M   | B               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2214M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 13513M  | A               | 0.87                | CH3             | CH2-CH2                           |   | DMSO-D6 |
| 10898M  | B               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 3875M   | A               | 0.87 APP.           | CH3             | CH2-CH2                           |   | CCL4    |
| 3691M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 3691M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2474M   | A               | 0.87                | CH3             | CH2-CH2                           |   | D2O     |
| 5257M   | B               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 416M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 3753M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 1417M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 5193M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 5186M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 13595M  | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 13626M  | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 2454M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2458M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2441M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2456M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2445M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2455M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2453M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2457M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 640M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 2816M   | B               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 2814M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 10708M  | A               | 0.87                | CH3             | CH2-CH2                           |   | DMSO-D6 |
| 738M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 106M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 125M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 4217M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 6278M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 260M    | A               | 0.87                | CH3             | CH2-CH2                           |   | CDCL3   |
| 4601M   | A               | 0.87                | CH3             | CH2-CH2                           |   | CCL4    |
| 4671M   | A               | 0.87                | CH3             | CH2-CH2                           |   | DMSO-D6 |
| 315M    | A               | 0.87                | CH3             | CH2-R6                            |   | CCL4    |
| 5647M   | A               | 0.87                | CH3             | CH2-R6N                           |   | CDCL3   |
| 11712M  | A               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CDCL3   |
| 5265M   | A               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 5267M   | A               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 3156M   | A               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 2850M   | A               | 0.87 APP.           | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 3416M   | B               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 3413M   | B               | 0.87                | CH3             | CH(CH2/CH3)                       |   | CCL4    |
| 9940M   | B               | 0.87 APP.           | CH3             | CH(CH/CH2)                        |   | CDCL3   |
| 875M    | A               | 0.87                | CH3             | CH(CH/CH3)                        |   | CCL4    |
| 7160M   | A               | 0.87                | CH3             | CH(C/CH3)                         |   | CDCL3   |
| 7160M   | R               | 0.87                | CH3             | CH(C/CH3)                         |   | CDCL3   |
| 9953M   | C               | 0.87 APP.           | CH3             | CH(R5R6R6R6/CH2)                  |   | CDCL3   |
| 4385M   | A               | 0.87                | CH3             | C(CH2/CH2/CH3)                    |   | CCL4    |
| 9953M   | C               | 0.87 APP.           | CH3             | C(CH2/CH3)                        |   | CDCL3   |
| 1897M   | A               | 0.87                | CH3             | C(CH2/CH3/CH3)                    |   | CCL4    |
| 13955M  | A               | 0.87 APP.           | CH3             | C(R6/CH2/CH3)                     |   | CDCL3   |
| 7953M   | A               | 0.87                | CH3             | R4R6BI<C(CH3)-CH*/CH*>            |   | CDCL3   |
| 4366M   | B               | 0.87                | CH3             | R4<C(CH3)/CH/CH>                  |   | CDCL3   |
| 4366M   | A               | 0.87                | CH3             | R4<C(CH3)/CH/CH>                  |   | CDCL3   |
| 9974M   | D               | 0.87                | CH3             | R5R3R6R6R5<C*(CH*/CH2)>           |   | CDCL3   |
| 6472M   | A               | 0.87                | CH3             | R5R5BI<C(CH3)-C*(HCH-SO3-NA)/CH*> | S | D2O     |
| 6472M   | R               | 0.87                | CH3             | R5R5BI<C(CH3)-C*(HCH-SO3-NA)/CH*> | S | D2O     |
| 9974M   | C               | 0.87                | CH3             | R5R6R6R5R3<C*(C(OH/C:CH)/CH2)>    |   | CDCL3   |
| 14196M  | A               | 0.87                | CH3             | R6R6R6TRI(C*(CH2/CH2/CH2))        |   | DMSO-D6 |
| 758M    | A               | 0.87                | CH3             | R6(C(CH3)-CH2/CH2)                |   | CCL4    |
| 758M    | C               | 0.87                | CH3             | R6(C(CH3)-CH2/CH2)                |   | CCL4    |
| 1576M   | A               | 0.87                | CH3             | SI(CL/A/A)                        |   | CCL4    |
| 9990M   | C               | 0.87- 2.00          |                 | UNSPECIFIED                       |   | CDCL3   |
| 3788M   | B               | 0.87- 2.00          |                 | UNSPECIFIED                       |   | CDCL3   |
| 3234M   | A               | 0.87 APP.           |                 | UNSPECIFIED                       |   | CCL4    |
| 7216M   | B               | 0.88                | CH2             | C(OH/CH2/CH2)/CH3                 |   | CCL4    |
| 2313M   | B               | 0.88- 1.83          | CH2.X           | CH2.3                             |   | CCL4    |

| NMR NO. | ASSIGN-<br>MENT | CHEM SHIFT<br>-PPM- | PROTON<br>GROUP | ENVIRONMENTAL GROUPS | S | SOLVENT |
|---------|-----------------|---------------------|-----------------|----------------------|---|---------|
| 318M    | A               | 0.88                | CH3             | CH2-C                |   | CCL4    |
| 7216M   | B               | 0.88                | CH3             | CH2-C                |   | CCL4    |
| 11852M  | B               | 0.88                | CH3             | CH2-C                |   | CDCL3   |
| 302M    | A               | 0.88                | CH3             | CH2-C                |   | CDCL3   |
| 9049M   | A               | 0.88                | CH3             | CH2-C                |   | D2O     |
| 3302M   | A               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 4935M   | A               | 0.88 APP.           | CH3             | CH2-CH               |   | CCL4    |
| 5595M   | A               | 0.88                | CH3             | CH2-CH               |   | CCL4    |
| 12133M  | A               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 6447M   | A               | 0.88                | CH3             | CH2-CH               |   | CCL4    |
| 5268M   | B               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 11494M  | A               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 14M     | A               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 10560M  | A               | 0.88                | CH3             | CH2-CH               |   | DMSO-D6 |
| 10537M  | A               | 0.88                | CH3             | CH2-CH               |   | DMSO-D6 |
| 14306M  | A               | 0.88                | CH3             | CH2-CH               |   | CCL4    |
| 2621M   | A               | 0.88                | CH3             | CH2-CH               |   | CDCL3   |
| 2818M   | B               | 0.88 APP.           | CH3             | CH2-CH               |   | CCL4    |
| 4009M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 4016M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 3583M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 3612M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2091M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5865M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5893M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 5868M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 1557M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 1546M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 1560M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2817M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2776M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2828M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2743M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2760M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2752M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2594M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2596M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2634M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 10747M  | A               | 0.88                | CH3             | CH2-CH2              |   | DMSO-D6 |
| 641M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 644M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 642M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 663M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 727M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 671M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 12184M  | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 3414M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 3422M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 3391M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 157M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 202M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 167M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 105M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 151M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 100M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 203M    | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 194M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 195M    | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 5197M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5194M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5125M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5137M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 5056M   | B               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2452M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2438M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2440M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2459M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2460M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 11126M  | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 13098M  | A               | 0.88                | CH3             | CH2-CH2              |   | DMSO-D6 |
| 1464M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 1419M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 5684M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 1816M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 9M      | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2053M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 11397M  | A               | 0.88                | CH3             | CH2-CH2              |   | D2O     |
| 5330M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2389M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |
| 2416M   | A               | 0.88                | CH3             | CH2-CH2              |   | CDCL3   |
| 2241M   | A               | 0.88                | CH3             | CH2-CH2              |   | CCL4    |

: REPRESENTS TRIPLE BOND, ~ REPRESENTS AN ARROW AND &lt; AND &gt; REPRESENT BRACKETS.

PAGE 14