## **Supplementary Material**

Distribution of members of particular crystallographic point groups over Wyckoff positions in One-R. Point groups with less than 75 members.

| C <sub>4</sub> Total 38<br>C <sub>4</sub><br>C <sub>1</sub><br>C <sub>2</sub>  | 22<br>12<br>4          |
|--|------------------------|
| $\begin{array}{c} \textbf{C_{4h} Total 17} \\ \textbf{C_{i}} \\ \textbf{C_{4h}} \end{array}$   | 10<br>7                |
| $\begin{array}{c} \textbf{C_{4v} Total 36} \\ \textbf{C}_1 \\ \textbf{C}_s \\ \textbf{C}_4 \\ \textbf{C}_2 \\ \textbf{C}_{2v} \end{array}$ | 18<br>7<br>6<br>3<br>2 |
| D <sub>4</sub> Total 37 C <sub>2</sub> C <sub>1</sub> D <sub>2</sub> D <sub>4</sub> C <sub>4</sub>   | 23<br>4<br>4<br>4<br>2 |
| $\begin{array}{c} C_{3h}  Total  55 \\ C_{3h} \\ C_3 \\ C_1 \\ C_s \end{array}$  | 27<br>15<br>11<br>2    |
| C <sub>6</sub> Total 2<br>C <sub>1</sub><br>C <sub>6</sub>   | 1                      |
| C <sub>6h</sub> Total 1  | 1                      |
| C <sub>6v</sub> Total 0  |                        |
| D <sub>6</sub> Total 1<br>C <sub>2</sub>   | 1                      |
| $\begin{array}{c} \textbf{D_{6h} Total 20} \\ C_i \\ C_1 \\ S_6 \end{array}$   | 12<br>3<br>2           |

| $\begin{array}{c} C_2 \\ C_{2h} \\ D_{2h} \end{array}$   | 1<br>1<br>1                      |
|--|----------------------------------|
| $\begin{array}{c} \textbf{O_h Total 22} \\ \textbf{C_s} \\ \textbf{C_i} \\ \textbf{S_6} \\ \textbf{C_3} \\ \textbf{D_{3d}} \\ \textbf{C_{2v}} \\ \textbf{C_2} \end{array}$ | 66<br>55<br>44<br>41<br>11<br>11 |
| <b>T Total 9</b> T C <sub>2</sub> C <sub>3</sub>   | 5 2 2                            |
| T <sub>h</sub> Total 1<br>T  | 1                                |

Favourite sites for molecules of particular crystallographic point group symmetries in One-R. Only point groups that have less than 75 members.

## C<sub>4</sub>, Total 38 C<sub>4</sub> in P4/n $C_1$ in Pna $2_1$ 9 C<sub>4</sub> in P4nc 5 $C_4$ in I4 4 C<sub>4</sub> in P4/ncc 2 C<sub>2</sub> in C2/c 7 Rest C<sub>4h</sub>, Total 17 $C_{4h}$ in I4/m 7 C<sub>i</sub> in P2<sub>1</sub>/c 4 C<sub>i</sub> in P-1 3 $C_i$ in Pccn 2 C<sub>i</sub> in Pbca 1 0 Rest C. Total 36

| $C_{4v}$ , 10tal 30    |    |
|------------------------|----|
| $C_1$ in $P2_1/c$      | 6  |
| $C_1$ in P-1           | 5  |
| C <sub>s</sub> in Pnma | 5  |
| C <sub>4</sub> in I4mm | 3  |
| C <sub>1</sub> in Pbca | 2  |
| $C_s$ in $P2_1/m$      | 2  |
| Rest                   | 13 |
|                        |    |

## D<sub>4</sub>, Total 37 C<sub>2</sub> in C2/c 10 5 $C_2$ in $I4_1/acd$ D<sub>4</sub> in P4/nnc 3 3 D<sub>2</sub> in I4<sub>1</sub>/acd C<sub>2</sub> in Pnn2 3 C<sub>2</sub> in Pbcn 3 Rest 0 C<sub>3h</sub>, Total 55 C<sub>3h</sub> in P63/m 27 7 $C_3$ in R-3 5 $C_1$ in $P2_1/c$ 3 C<sub>3</sub> in P213 $C_1$ in P-1 3 2 $C_3$ in P-3c1 8 Rest C<sub>6</sub> Total 2 C<sub>1</sub> in P-1 1 C<sub>6</sub> in P6cc 1 C<sub>6h</sub> Total 1 C<sub>i</sub> in C2/c 1 $C_{6v}$ Total 0D<sub>6</sub> Total 1 C<sub>2</sub> in I2/c 1 $D_{6h}$ , Total 20 C<sub>i</sub> in P2<sub>1</sub>/c 2 C<sub>i</sub> in Pbca S<sub>6</sub> in Pa3 2 2 $C_1$ in $P2_1/c$ D<sub>2h</sub> in Fmmm 1 C<sub>i</sub> in C2/c 1 3 Rest O<sub>h</sub>, Total 22 C<sub>s</sub> in Pnma 4 3 C<sub>i</sub> in P2<sub>1</sub>/c $S_6$ in R-3 3 2 C<sub>i</sub> in P-1 2 C<sub>3</sub> in Fd-3c $D_{3d} \ in \ R\text{-}3m$ 1