Table S2. A set of updated *RNnn* symmetries as reported in Table 10 of Levitt 200234. The symmetries allow the g-encoded recoupling of the {l,m,l,m} = {2,±2,2,±1} or {2, ±2, 2, ∓1} components of the homonuclear DD couplings with suppression of all other homonuclear DD terms, CSA terms, and isotropic shift terms. The homonuclear J-coupling {0, 0, 0, 0} is symmetry allowed. All inequivalent solutions in the range N ≤ 20, n ≤ 10, and 1 ≤ n ≤ N/2 are shown. Those symmetries previously reported with n > N/2 are shown in ***bold italics*** with n ≤ N/2.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| R1012 | R1212 | R1412 | R1612 | R1812 | R2012 | R1424 | R1824 | R1034 | R1436 |
| R1636 | R2036 | ***R1446*** | R1848 | ***R1252*** | ***R1454*** | ***R1656*** | ***R1858*** | ***R1462*** | ***R1074*** |
| R1272 | ***R1672*** | ***R1874*** | ***R2076*** | R1482 | ***R1882*** | R1092 | R1494 | R1692 | ***R2092*** |
| R14106 | R18102 |  |  |  |  |  |  |  |  |