Table S6. The following variable flip angle R-Symmetry elements were tested in Simpson. . Red arrows represent the first portion of the composite pulse t1. t2 is the second portion, in blue. t3 is the third portion in yellow. t4 is the third portion in black. t5 is the fifth portion in gray.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| R-element |  |  | kp (B1=kprN/2n) | 1,2,3… •­ (2rn/N) |
|  | A picture containing gauge, device  Description automatically generated | 1a |  | 1=   2=  |
|  | Shape, arrow  Description automatically generated | 2a |  | 1=   2=   3=  |
|  | Shape, arrow  Description automatically generated | 2b |  | 1=   2=   3=  |
|  | A picture containing text, gauge  Description automatically generated | 2c |  | 1=   2=   3=  |
|  | A picture containing logo  Description automatically generated | 2d |  | 1=   2=   3=  |
|  | Shape, arrow  Description automatically generated | 2e |  | 1=   2=   3=  |
|  | Shape, arrow  Description automatically generated | 2f |  | 1=   2=   3=  |
|  | Shape, arrow  Description automatically generated | 3a |  | 1=   2=   3=   4=  |
|  | Shape, arrow  Description automatically generated | 3b |  | 1=   2=   3=   4=  |
|  | Shape, arrow  Description automatically generated | 3c |  | 1=   2=   3=   4=  |
|  | A picture containing text  Description automatically generated | 4a |  | 1=   2=   3= ( |
|  |  | 4b |  | 1=   2=   3= ( |
|  | A picture containing text, gauge  Description automatically generated | 5a |  | 1=   2=   3= ( |
|  | A picture containing text  Description automatically generated | 5b |  | 1=   2=   3= ( |
|  | A picture containing text, clipart  Description automatically generated | 6a |  | 1=   2=   3= (  4= ( |
|  | A picture containing text, clipart  Description automatically generated | 6b |  | 1=   2=   3= (  4= ( |
|  | A picture containing clipart, vector graphics  Description automatically generated | 7a |  | 1=   2=   3= (  4= ( |
|  | Shape, logo  Description automatically generated with medium confidence | 8a |  | 1=   2=   3=   4=   5=  |
|  | Shape  Description automatically generated | 8b |  | 1=   2=   3=   4=   5=  |
|  | A picture containing shape  Description automatically generated | 8c |  | 1=   2=   3=   4=   5=  |
|  | A picture containing shape  Description automatically generated | 8d |  | 1=   2=   3=   4=   5=  |
|  | Shape, arrow  Description automatically generated | 8e |  | 1=   2=   3=   4=   5=  |