

Distribution trajektischer Dyaden konverser Matrizen in der großen semiotischen Matrix

1. Bei unseren Untersuchungen zur Diagonalität¹ bei trajektischen Matrizen (vgl. zuletzt Toth 2025) waren wir auf das erstaunliche Faktum gestoßen, daß die Haupt- und Nebendiagonalen, die ja in der von Bense (1975, S. 37) eingeführten kleinen Matrix die Diskriminante bzw. die Determinante ausmachen, in der großen Matrix (vgl. Bense 1975, S. 105) sehr oft mit einer dieser Funktionen, v.a. mit der Determinanten, zusammenfallen. Im folgenden wird daher die Verteilung der Paare trajektisch geschiedener Dyaden innerhalb der großen semiotischen Matrix aufgezeigt.

2. Trajektische Normmatrix und Matrixvariationen

Normmatrix

$$HD = ((1.1 \mid 1.1), (2.2 \mid 2.2), (3.3 \mid 3.3))$$

$$ND = ((3.1 \mid 3.1), (2.2 \mid 2.2), (1.3 \mid 1.3))$$

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu	Qu-Qu	Qu-Si	Qu-Le	Qu-Ic	Qu-In	Qu-Sy	Qu-Rh	Qu-Di	Qu-Ar
	11	11 1.1	11 1.2	11 1.3	11 2.1	11 2.2	11 2.3	11 3.1	11 3.2	11 3.3
	Si	Si-Qu	Si-Si	Si-Le	Si-Ic	Si-In	Si-Sy	Si-Rh	Si-Di	Si-Ar
O	12	12 1.1	12 1.2	12 1.3	12 2.1	12 2.2	12 2.3	12 3.1	12 3.2	12 3.3
	Le	Le-Qu	Le-Si	Le-Le	Le-Ic	Le-In	Le-Sy	Le-Rh	Le-Di	Le-Ar
	13	13 1.1	13 1.2	13 1.3	13 2.1	13 2.2	13 2.3	13 3.1	13 3.2	13 3.3
I	Ic	Ic-Qu	Ic-Si	Ic-Le	Ic-Ic	Ic-In	Ic-Sy	Ic-Rh	Ic-Di	Ic-Ar
	21	21 1.1	21 1.2	21 1.3	21 2.1	21 2.2	21 2.3	21 3.1	21 3.2	21 3.3
	In	In-Qu	In-Si	In-Le	In-Ic	In-In	In-Sy	In-Rh	In-Di	In-Ar
I	22	22 1.1	22 1.2	22 1.3	22 2.1	22 2.2	22 2.3	22 3.1	22 3.2	22 3.3
	Sy	Sy-Qu	Sy-Si	Sy-Le	Sy-Ic	Sy-In	Sy-Sy	Sy-Rh	Sy-Di	Sy-Ar
	23	23 1.1	23 1.2	23 1.3	23 2.1	23 2.2	23 2.3	23 3.1	23 3.2	23 3.3
I	Rh	Rh-Qu	Rh-Si	Rh-Le	Rh-Ic	Rh-In	Rh-Sy	Rh-Rh	Rh-Di	Rh-Ar
	31	31 1.1	31 1.2	31 1.3	31 2.1	31 2.2	31 2.3	31 3.1	31 3.2	31 3.3
	Di	Di-Qu	Di-Si	Di-Le	Di-Ic	Di-In	Di-Sy	Di-Rh	Di-Di	Di-Ar
I	32	32 1.1	32 1.2	32 1.3	32 2.1	32 2.2	32 2.3	32 3.1	32 3.2	32 3.3
	Ar	Ar-Qu	Ar-Si	Ar-Le	Ar-Ic	Ar-In	Ar-Sy	Ar-Rh	Ar-Di	Ar-Ar
	33	33 1.1	33 1.2	33 1.3	33 2.1	33 2.2	33 2.3	33 3.1	33 3.2	33 3.3

2.1. $\mathcal{M}((a, b, c)^{l_0})^{-1}$

¹ Zur Diagonalität in der kleinen semiotischen Matrix vgl. Bense (1992).

$$HD = ((1.1 \mid 3.1), (2.2 \mid 2.2), (3.3 \mid 1.3))$$

$$ND = ((3.1 \mid 1.1), (2.2 \mid 2.2), (1.3 \mid 3.3))$$

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

$$2.2. \mathcal{M}((a, b, c)^{ro})^{-1}$$

$$HD = ((1.1 \mid 1.3), (2.2 \mid 2.2), (3.3 \mid 3.1))$$

$$ND = ((3.1 \mid 3.3), (2.2 \mid 2.2), (1.3 \mid 1.1))$$

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

$$2.3. \mathcal{M}((a, b, c)^{lo, ro})^{-1}$$

$$HD = ((1.1 \mid 3.3), (2.2 \mid 2.2), (3.3 \mid 1.1))$$

$$ND = ((3.1 \mid 1.3), (2.2 \mid 2.2), (1.3 \mid 3.1))$$

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

2.4. $\mathcal{M}((x, y, z)^{lo})^{-1}$

HD = ((3.1 | 1.1), (2.2 | 2.2), (1.3 | 3.3))

ND = ((1.1 | 3.1), (2.2 | 2.2), (3.3 | 1.3))

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

2.5. $\mathcal{M}((x, y, z)^{ro})^{-1}$

HD = ((1.3 | 1.1), (2.2 | 2.2), (3.1 | 3.3))

ND = ((3.3 | 3.1), (2.2 | 2.2), (1.1 | 1.3))

	M			O			I		
	Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 11	Qu-Si 11 1.1	Qu-Le 11 1.2	Qu-Ic 11 2.1	Qu-In 11 2.2	Qu-Sy 11 2.3	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si 12	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2	Si-Ar 12 3.3
	Le 13	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2	Le-Ar 13 3.3
O	Ic 21	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Ic 21 1.3	Ic-In 21 2.1	Ic-Sy 21 2.2	Ic-Rh 21 3.1	Ic-Di 21 3.2	Ic-Ar 21 3.3
	In 22	In-Qu 22 1.1	In-Si 22 1.2	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2	In-Ar 22 3.3
	Sy 23	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2	Sy-Ar 23 3.3
I	Rh 31	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2	Rh-Ar 31 3.3
	Di 32	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2	Di-Ar 32 3.3
	Ar 33	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2	Ar-Ar 33 3.3

2.6. $\mathcal{M}((x, y, z)^{l_0, r_0})^{-1}$

HD = ((3.3 | 1.1), (2.2 | 2.2), (1.1 | 3.3))

ND = ((1.3 | 3.1), (2.2 | 2.2), (3.1 | 1.3))

	M			O			I		
	Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 11	Qu-Si 11 1.1	Qu-Le 11 1.2	Qu-Ic 11 2.1	Qu-In 11 2.2	Qu-Sy 11 2.3	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si 12	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2	Si-Ar 12 3.3
	Le 13	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2	Le-Ar 13 3.3
O	Ic 21	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Ic 21 1.3	Ic-In 21 2.1	Ic-Sy 21 2.2	Ic-Rh 21 3.1	Ic-Di 21 3.2	Ic-Ar 21 3.3
	In 22	In-Qu 22 1.1	In-Si 22 1.2	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2	In-Ar 22 3.3
	Sy 23	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2	Sy-Ar 23 3.3
I	Rh 31	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2	Rh-Ar 31 3.3
	Di 32	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2	Di-Ar 32 3.3
	Ar 33	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2	Ar-Ar 33 3.3

2.7. $\mathcal{M}((x, y, z)^{l_0})^{-1}, ((a, b, c)^{l_0})^{-1}$

HD = ((3.1 | 3.1), (2.2 | 2.2), (1.3 | 1.3))

ND = ((1.1 | 1.1), (2.2 | 2.2), (3.3 | 3.3))

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

2.8. $\mathcal{M}((x, y, z)^{l_0})^{-1}, ((a, b, c)^{r_0})^{-1}$

HD = ((3.1 | 1.3), (2.2 | 2.2), (1.3 | 3.1))

ND = ((1.1 | 1.3), (2.2 | 2.2), (3.3 | 1.1))

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 1.1	Qu-Qu 1.1 1.1	Qu-Si 1.1 1.2	Qu-Le 1.1 1.3	Qu-Ic 1.1 2.1	Qu-In 1.1 2.2	Qu-Sy 1.1 2.3	Qu-Rh 1.1 3.1	Qu-Di 1.1 3.2	Qu-Ar 1.1 3.3
	Si 1.2	Si-Qu 1.2 1.1	Si-Si 1.2 1.2	Si-Le 1.2 1.3	Si-Ic 1.2 2.1	Si-In 1.2 2.2	Si-Sy 1.2 2.3	Si-Rh 1.2 3.1	Si-Di 1.2 3.2	Si-Ar 1.2 3.3
	Le 1.3	Le-Qu 1.3 1.1	Le-Si 1.3 1.2	Le-Le 1.3 1.3	Le-Ic 1.3 2.1	Le-In 1.3 2.2	Le-Sy 1.3 2.3	Le-Rh 1.3 3.1	Le-Di 1.3 3.2	Le-Ar 1.3 3.3
O	Ic 2.1	Ic-Qu 2.1 1.1	Ic-Si 2.1 1.2	Ic-Le 2.1 1.3	Ic-Ic 2.1 2.1	Ic-In 2.1 2.2	Ic-Sy 2.1 2.3	Ic-Rh 2.1 3.1	Ic-Di 2.1 3.2	Ic-Ar 2.1 3.3
	In 2.2	In-Qu 2.2 1.1	In-Si 2.2 1.2	In-Le 2.2 1.3	In-Ic 2.2 2.1	In-In 2.2 2.2	In-Sy 2.2 2.3	In-Rh 2.2 3.1	In-Di 2.2 3.2	In-Ar 2.2 3.3
	Sy 2.3	Sy-Qu 2.3 1.1	Sy-Si 2.3 1.2	Sy-Le 2.3 1.3	Sy-Ic 2.3 2.1	Sy-In 2.3 2.2	Sy-Sy 2.3 2.3	Sy-Rh 2.3 3.1	Sy-Di 2.3 3.2	Sy-Ar 2.3 3.3
I	Rh 3.1	Rh-Qu 3.1 1.1	Rh-Si 3.1 1.2	Rh-Le 3.1 1.3	Rh-Ic 3.1 2.1	Rh-In 3.1 2.2	Rh-Sy 3.1 2.3	Rh-Rh 3.1 3.1	Rh-Di 3.1 3.2	Rh-Ar 3.1 3.3
	Di 3.2	Di-Qu 3.2 1.1	Di-Si 3.2 1.2	Di-Le 3.2 1.3	Di-Ic 3.2 2.1	Di-In 3.2 2.2	Di-Sy 3.2 2.3	Di-Rh 3.2 3.1	Di-Di 3.2 3.2	Di-Ar 3.2 3.3
	Ar 3.3	Ar-Qu 3.3 1.1	Ar-Si 3.3 1.2	Ar-Le 3.3 1.3	Ar-Ic 3.3 2.1	Ar-In 3.3 2.2	Ar-Sy 3.3 2.3	Ar-Rh 3.3 3.1	Ar-Di 3.3 3.2	Ar-Ar 3.3 3.3

2.9. $\mathcal{M}((x, y, z)^{r_0})^{-1}, ((a, b, c)^{l_0})^{-1}$

HD = ((1.3 | 3.1), (2.2 | 2.2), (3.1 | 1.3))

ND = ((3.3 | 1.1), (2.2 | 2.2), (1.1 | 3.3))

	M			O			I		
	Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 11	Qu-Si 11 1.1	Qu-Le 11 1.2	Qu-Ic 11 1.3	Qu-In 11 2.1	Qu-Sy 11 2.2	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si 12	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Le 12 1.3	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2
	Le 13	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Le 13 1.3	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2
O	Ic 21	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Le 21 1.3	Ic-Ic 21 2.1	Ic-In 21 2.2	Ic-Sy 21 2.3	Ic-Rh 21 3.1	Ic-Di 21 3.2
	In 22	In-Qu 22 1.1	In-Si 22 1.2	In-Le 22 1.3	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2
	Sy 23	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Le 23 1.3	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2
I	Rh 31	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Le 31 1.3	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2
	Di 32	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Le 32 1.3	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2
	Ar 33	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Le 33 1.3	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2

2.10. $\mathcal{M}((x, y, z)^{ro})^{-1}, ((a, b, c)^{ro})^{-1}$

HD = ((1.3 | 1.3), (2.2 | 2.2), (3.1 | 3.1))

ND = ((3.3 | 3.3), (2.2 | 2.2), (1.1 | 1.1))

	M			O			I		
	Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu 11	Qu-Si 11 1.1	Qu-Le 11 1.2	Qu-Ic 11 1.3	Qu-In 11 2.1	Qu-Sy 11 2.2	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si 12	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Le 12 1.3	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2
	Le 13	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Le 13 1.3	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2
O	Ic 21	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Le 21 1.3	Ic-Ic 21 2.1	Ic-In 21 2.2	Ic-Sy 21 2.3	Ic-Rh 21 3.1	Ic-Di 21 3.2
	In 22	In-Qu 22 1.1	In-Si 22 1.2	In-Le 22 1.3	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2
	Sy 23	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Le 23 1.3	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2
I	Rh 31	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Le 31 1.3	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2
	Di 32	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Le 32 1.3	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2
	Ar 33	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Le 33 1.3	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2

2.11. $\mathcal{M}((a, b, c)^{lo})^{-1}, ((x, y, z)^{ro})^{-1}, (a, b, c)^{ro})^{-1}$

HD = ((1.3 | 3.3), (2.2 | 2.2), (3.1 | 1.1))

ND = ((3.3 | 1.3), (2.2 | 2.2), (1.1 | 3.1))

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu	Qu-Qu 11 1.1	Qu-Si 11 1.2	Qu-Le 11 1.3	Qu-Ic 11 2.1	Qu-In 11 2.2	Qu-Sy 11 2.3	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Le 12 1.3	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2	Si-Ar 12 3.3
	Le	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Le 13 1.3	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2	Le-Ar 13 3.3
O	Ic	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Le 21 1.3	Ic-Ic 21 2.1	Ic-In 21 2.2	Ic-Sy 21 2.3	Ic-Rh 21 3.1	Ic-Di 21 3.2	Ic-Ar 21 3.3
	In	In-Qu 22 1.1	In-Si 22 1.2	In-Le 22 1.3	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2	In-Ar 22 3.3
	Sy	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Le 23 1.3	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2	Sy-Ar 23 3.3
I	Rh	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Le 31 1.3	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2	Rh-Ar 31 3.3
	Di	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Le 32 1.3	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2	Di-Ar 32 3.3
	Ar	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Le 33 1.3	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2	Ar-Ar 33 3.3

2.12. $\mathcal{M}((x, y, z)^{l_0})^{-1}, ((a, b, c)^{l_0})^{-1}, ((a, b, c)^{r_0})^{-1}$

HD = ((3.1 | 3.3), (2.2 | 2.2), (1.3 | 1.1))

ND = ((1.1 | 1.3), (2.2 | 2.2), (3.3 | 3.1))

		M			O			I		
		Qu 1.1	Si 1.2	Le 1.3	Ic 2.1	In 2.2	Sy 2.3	Rh 3.1	Di 3.2	Ar 3.3
M	Qu	Qu-Qu 11 1.1	Qu-Si 11 1.2	Qu-Le 11 1.3	Qu-Ic 11 2.1	Qu-In 11 2.2	Qu-Sy 11 2.3	Qu-Rh 11 3.1	Qu-Di 11 3.2	Qu-Ar 11 3.3
	Si	Si-Qu 12 1.1	Si-Si 12 1.2	Si-Le 12 1.3	Si-Ic 12 2.1	Si-In 12 2.2	Si-Sy 12 2.3	Si-Rh 12 3.1	Si-Di 12 3.2	Si-Ar 12 3.3
	Le	Le-Qu 13 1.1	Le-Si 13 1.2	Le-Le 13 1.3	Le-Ic 13 2.1	Le-In 13 2.2	Le-Sy 13 2.3	Le-Rh 13 3.1	Le-Di 13 3.2	Le-Ar 13 3.3
O	Ic	Ic-Qu 21 1.1	Ic-Si 21 1.2	Ic-Le 21 1.3	Ic-Ic 21 2.1	Ic-In 21 2.2	Ic-Sy 21 2.3	Ic-Rh 21 3.1	Ic-Di 21 3.2	Ic-Ar 21 3.3
	In	In-Qu 22 1.1	In-Si 22 1.2	In-Le 22 1.3	In-Ic 22 2.1	In-In 22 2.2	In-Sy 22 2.3	In-Rh 22 3.1	In-Di 22 3.2	In-Ar 22 3.3
	Sy	Sy-Qu 23 1.1	Sy-Si 23 1.2	Sy-Le 23 1.3	Sy-Ic 23 2.1	Sy-In 23 2.2	Sy-Sy 23 2.3	Sy-Rh 23 3.1	Sy-Di 23 3.2	Sy-Ar 23 3.3
I	Rh	Rh-Qu 31 1.1	Rh-Si 31 1.2	Rh-Le 31 1.3	Rh-Ic 31 2.1	Rh-In 31 2.2	Rh-Sy 31 2.3	Rh-Rh 31 3.1	Rh-Di 31 3.2	Rh-Ar 31 3.3
	Di	Di-Qu 32 1.1	Di-Si 32 1.2	Di-Le 32 1.3	Di-Ic 32 2.1	Di-In 32 2.2	Di-Sy 32 2.3	Di-Rh 32 3.1	Di-Di 32 3.2	Di-Ar 32 3.3
	Ar	Ar-Qu 33 1.1	Ar-Si 33 1.2	Ar-Le 33 1.3	Ar-Ic 33 2.1	Ar-In 33 2.2	Ar-Sy 33 2.3	Ar-Rh 33 3.1	Ar-Di 33 3.2	Ar-Ar 33 3.3

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