

1 $p11(1)$ (45 families)

1.1 OD groupoid family #1

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \\ \{ \quad - \quad - \quad (-) \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P1$$

1.2 OD groupoid family #2

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \\ \{ \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \} \\ [0, \quad 0] \\ \{ \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=2\mathbf{c}}\bar{1}$$

1.3 OD groupoid family #3

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \\ \{ \quad - \quad - \quad (2_2) \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=2\mathbf{c}}112_1$$

1.4 OD groupoid family #4

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \\ \{ \quad - \quad - \quad (n_{r,s}) \} \\ \{ \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \} \\ [0, \quad 0] \end{array}$$

May be simplified to:

$$\begin{array}{c} p \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \\ \{ \quad - \quad - \quad (2_2/n_{r'',s''}) \} \end{array}$$

1.5 OD groupoid family #5

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \\ \{ \quad - \quad - \quad (n_{r,s}) \} \\ \{ \quad - \quad - \quad (n_{r',s'}) \} \end{array}$$

1.6 OD groupoid family #6

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} p & 1 & 1 & (1) \\ c_2 & - & (-) \\ [0] \end{array} \}$$

Is fully ordered and equivalent to:

$$P_{c'=2c}c11$$

1.7 OD groupoid family #7

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} c & 1 & 1 & (1) \\ c_2 & - & (-) \\ n_{1,2} \\ [0] \end{array} \}$$

Is fully ordered and equivalent to:

$$C_{c'=2c}c11$$

1.8 OD groupoid family #8

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} p & 1 & 1 & (1) \\ 2_r & - & (-) \\ [0] \\ \{ \begin{array}{ccc} \bar{1} & \bar{1} & (\bar{1}) \end{array} \\ [0, \quad 0] \end{array} \}$$

May be simplified to:

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} p & \bar{1} & \bar{1} & (\bar{1}) \\ 2_{r''}/c_2 & - & (-) \end{array} \}$$

1.9 OD groupoid family #9

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} p & 1 & 1 & (1) \\ 2_r & - & (-) \\ [0] \\ \{ \begin{array}{ccc} 2_{r'} & - & (-) \end{array} \\ [0] \end{array} \}$$

1.10 OD groupoid family #10

$$\begin{array}{c} op \\ \{ \end{array} \begin{array}{ccccc} c & 1 & 1 & (1) \\ 2_r & - & (-) \\ 2_{r+1} \\ [0] \\ \{ \begin{array}{ccc} \bar{1} & \bar{1} & (\bar{1}) \end{array} \\ [0, \quad 0] \end{array} \}$$

May be simplified to:

$$op \quad c \quad \begin{array}{c} \bar{1} \\ 2_{r''} \\ c_2 \\ 2_{r''+1} \\ n_{1,2} \end{array} \quad \begin{array}{c} \bar{1} \\ - \\ - \\ - \\ - \end{array} \quad \begin{array}{c} (\bar{1}) \\ (-) \\ (-) \\ (-) \\ (-) \end{array}$$

1.11 OD groupoid family #11

$$op \quad c \quad \begin{array}{c} 1 \\ 2_r \\ 2_{r+1} \end{array} \quad \begin{array}{c} 1 \\ - \\ - \end{array} \quad \begin{array}{c} (1) \\ (-) \\ (-) \end{array}$$

$$\begin{array}{c} [0] \\ \left\{ \begin{array}{c} 2_{r'} \\ 2_{r'+1} \end{array} \right. \quad \begin{array}{c} - \\ - \end{array} \quad \begin{array}{c} (-) \\ (-) \end{array} \end{array}$$

$$[0]$$

1.12 OD groupoid family #12

$$op \quad p \quad \begin{array}{c} 1 \\ \{ 2_r \end{array} \quad \begin{array}{c} 1 \\ - \\ [0] \\ - \end{array} \quad \begin{array}{c} (1) \\ (-) \\ (-) \\ (-) \end{array}$$

$$\begin{array}{c} \{ - \\ [0] \end{array} \quad \begin{array}{c} 2_{s'} \\ (-) \end{array}$$

1.13 OD groupoid family #13

$$op \quad c \quad \begin{array}{c} 1 \\ 2_r \\ 2_{r+1} \end{array} \quad \begin{array}{c} 1 \\ - \\ - \end{array} \quad \begin{array}{c} (1) \\ (-) \\ (-) \end{array}$$

$$\begin{array}{c} [0] \\ \left\{ \begin{array}{c} - \\ [0] \end{array} \right. \quad \begin{array}{c} 2_{s'} \\ 2_{s'+1} \end{array} \quad \begin{array}{c} (-) \\ (-) \end{array} \end{array}$$

1.14 OD groupoid family #14

$$op \quad p \quad \begin{array}{c} 1 \\ \{ - \\ \{ 2_{r'} \end{array} \quad \begin{array}{c} 1 \\ - \\ - \end{array} \quad \begin{array}{c} (1) \\ (n_{r,s}) \\ (-) \end{array}$$

$$[0]$$

1.15 OD groupoid family #15

$$\begin{array}{c} op \\ \left\{ \begin{array}{ccc} c & 1 & 1 \\ & - & - \\ & 2_{r'} & - \\ & 2_{r'+1} & - \end{array} \right. \left(\begin{array}{c} (1) \\ n_{r,s} \\ n_{r+1,s+1} \\ (-) \end{array} \right) \right\} \\ [0] \end{array}$$

1.16 OD groupoid family #16

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ - & - & (4_4^-) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0, \ 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=4\mathbf{c}}4_3$$

Is enantiomorph of:

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ - & - & (4_4^+) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0, \ 0] \end{array}$$

1.17 OD groupoid family #17

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ - & - & (4_4^+) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0, \ 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=4\mathbf{c}}4_1$$

Is enantiomorph of:

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ - & - & (4_4^-) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0, \ 0] \end{array}$$

1.18 OD groupoid family #18

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ 2_r & - & (-) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0] \\ \left\{ \begin{array}{ccc} - & - & (-) \\ & & 2 \end{array} \right\} \\ [s'] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \\ \left\{ \begin{array}{ccc} 1 & 1 & (1) \\ 2_r & - & (-) \end{array} \right. \begin{array}{cc} 1 & 1 \\ - & - \end{array} \} \\ [0] \\ \left\{ \begin{array}{ccc} - & - & (-) \\ & & 2 \end{array} \right\} \\ [s'] \end{array}$$

1.19 OD groupoid family #19

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad 2_r \quad - \quad (-) \quad - \quad - \} \\ [0] \\ \{ \quad - \quad - \quad (-) \quad 2 \quad - \} \\ [s'] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad 2_r \quad - \quad (-) \quad - \quad - \} \\ [0] \\ \{ \quad - \quad - \quad (-) \quad - \quad 2 \} \\ [s'] \end{array}$$

1.20 OD groupoid family #20

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4^-}) \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad \overline{1} \quad \overline{1} \quad (\overline{1}) \quad \overline{1} \quad \overline{1} \} \\ [r', \quad s'] \end{array}$$

May be simplified to:

$$\begin{array}{c} p \quad \overline{1} \quad \overline{1} \quad (\overline{1}) \quad \overline{1} \quad \overline{1} \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^-} \right) \quad - \quad - \right\} \\ [r'', \quad s''] \end{array}$$

1.21 OD groupoid family #21

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4^-}) \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad - \quad - \quad (-) \quad 2_{r'} \quad - \} \\ [s'] \end{array}$$

1.22 OD groupoid family #22

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4^-}) \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad 2_{r'} \quad - \quad (-) \quad - \quad - \} \\ [s'] \end{array}$$

1.23 OD groupoid family #23

$$\begin{array}{ccccccc} p & 1 & 1 & (1) & 1 & 1 & \\ \{ & - & - & (\overline{4}^-) & - & - & \} \\ & [0, & 0] & & & & \\ & \{ & - & - & (n_{r',s'}) & - & - & \} \end{array}$$

1.24 OD groupoid family #24

$$\begin{array}{ccccccc} p & 1 & 1 & (1) & 1 & 1 & \\ \{ & - & - & (\overline{4}^-) & - & - & \} \\ & [0, & 0] & & & & \\ & \{ & - & - & (\overline{4}^-) & - & - & \} \\ & [r', & s'] & & & & \end{array}$$

1.25 OD groupoid family #25

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (3_3^-) & - & - & - & \} \\ & [0, & 0] & & & & & & \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=3\mathbf{c}}3_2$$

Is enantiomorph of:

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (3_3^+) & - & - & - & \} \\ & [0, & 0] & & & & & & \end{array}$$

1.26 OD groupoid family #26

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (3_3^+) & - & - & - & \} \\ & [0, & 0] & & & & & & \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=3\mathbf{c}}3_1$$

Is enantiomorph of:

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (3_3^-) & - & - & - & \} \\ & [0, & 0] & & & & & & \end{array}$$

1.27 OD groupoid family #27

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad - \quad (-) \quad 2_s \quad - \quad - \quad \} \\
 [0] \\
 \{ \quad - \quad - \quad - \quad (-) \quad - \quad 2_{r'} \quad - \quad \} \\
 [0]
 \end{array}$$

Is enantiomorph of:

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad - \quad (-) \quad 2_s \quad - \quad - \quad \} \\
 [0] \\
 \{ \quad - \quad - \quad - \quad (-) \quad - \quad - \quad 2 \quad \} \\
 [s']
 \end{array}$$

1.28 OD groupoid family #28

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad - \quad (-) \quad 2_s \quad - \quad - \quad \} \\
 [0] \\
 \{ \quad - \quad - \quad - \quad (-) \quad - \quad - \quad 2 \quad \} \\
 [s']
 \end{array}$$

Is enantiomorph of:

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad - \quad (-) \quad 2_s \quad - \quad - \quad \} \\
 [0] \\
 \{ \quad - \quad - \quad - \quad (-) \quad - \quad 2_{r'} \quad - \quad \} \\
 [0]
 \end{array}$$

1.29 OD groupoid family #29

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad - \quad - \quad 2 \quad (-) \quad - \quad - \quad - \quad \} \\
 [s']
 \end{array}$$

Is enantiomorph of:

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad - \quad 2 \quad - \quad (-) \quad - \quad - \quad - \quad \} \\
 [s']
 \end{array}$$

1.30 OD groupoid family #30

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\
 \{ & 2 & - & - & (-) & - & - & - \} \\
 & & [s] & & & & & \\
 \{ & - & 2 & - & (-) & - & - & - \} \\
 & & [s'] & & & & &
 \end{array}$$

Is enantiomorph of:

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\
 \{ & 2 & - & - & (-) & - & - & - \} \\
 & & [s] & & & & & \\
 \{ & - & - & 2 & (-) & - & - & - \} \\
 & & [s'] & & & & &
 \end{array}$$

1.31 OD groupoid family #31

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\
 \{ & - & - & - & \left(\overline{3^-}\right) & - & - & - \} \\
 & [0, & 0] & & & & & \\
 \{ & \overline{1} & \overline{1} & \overline{1} & (\overline{1}) & \overline{1} & \overline{1} & \overline{1} \} \\
 & [r', & s'] & & & & &
 \end{array}$$

May be simplified to:

$$\begin{array}{ccccccc}
 p & \overline{1} & \overline{1} & \overline{1} & (\overline{1}) & \overline{1} & \overline{1} & \overline{1} \\
 \left\{ \begin{array}{ccccccc} - & - & - & \left(\overline{\frac{3^-}{3}}\right) & - & - & - \end{array} \right\} \\
 & [r'', & s''] & & & & &
 \end{array}$$

1.32 OD groupoid family #32

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\
 \{ & - & - & - & \left(\overline{3^-}\right) & - & - & - \} \\
 & [0, & 0] & & & & & \\
 \{ & - & - & - & (-) & 2_{s'} & - & - \} \\
 & [r'] & & & & & &
 \end{array}$$

1.33 OD groupoid family #33

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\
 \{ & - & - & - & \left(\overline{3^-}\right) & - & - & - \} \\
 & [0, & 0] & & & & & \\
 \{ & 2_{r'} & - & - & (-) & - & - & - \} \\
 & [s'] & & & & & &
 \end{array}$$

1.34 OD groupoid family #34

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{3}) \quad - \quad - \quad - \quad \} \\ [0, \quad 0] \\ \{ \quad - \quad - \quad - \quad (\overline{3}) \quad - \quad - \quad - \quad \} \\ [r', \quad s'] \end{array}$$

1.35 OD groupoid family #35

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^-) \quad - \quad - \quad - \quad \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=6\mathbf{c}}6_5$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^+) \quad - \quad - \quad - \quad \} \\ [0, \quad 0] \end{array}$$

1.36 OD groupoid family #36

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^+) \quad - \quad - \quad - \quad \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=6\mathbf{c}}6_1$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^-) \quad - \quad - \quad - \quad \} \\ [0, \quad 0] \end{array}$$

1.37 OD groupoid family #37

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \quad \} \\ [s] \\ \{ \quad - \quad - \quad - \quad (-) \quad - \quad 2_{r'} \quad - \quad \} \\ [0] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \quad \} \\ [s] \\ \{ \quad - \quad - \quad - \quad (-) \quad - \quad - \quad 2 \quad \} \\ [s'] \end{array}$$

1.38 OD groupoid family #38

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \} \\ [s] \\ \{ \quad - \quad - \quad - \quad (-) \quad - \quad - \quad 2 \} \\ [s'] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (-) \quad - \quad - \quad - \} \\ [s] \\ \{ \quad - \quad - \quad - \quad (-) \quad - \quad 2_{r'} \quad - \} \\ [0] \end{array}$$

1.39 OD groupoid family #39

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{3^-}) \quad - \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad - \quad - \quad - \quad (n_{r',s'}) \quad - \quad - \quad - \} \end{array}$$

1.40 OD groupoid family #40

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{6^-}) \quad - \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad \overline{1} \quad \overline{1} \quad \overline{1} \quad (\overline{1}) \quad \overline{1} \quad \overline{1} \quad \overline{1} \} \\ [r', \quad s'] \end{array}$$

May be simplified to:

$$\begin{array}{c} p \quad \overline{1} \quad \overline{1} \quad \overline{1} \quad (\overline{1}) \quad \overline{1} \quad \overline{1} \quad \overline{1} \\ \left\{ \quad - \quad - \quad - \quad \left(\frac{\overline{6_6}}{\overline{6}} \right) \quad - \quad - \quad - \right\} \\ [r'', \quad s''] \end{array}$$

1.41 OD groupoid family #41

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{6^-}) \quad - \quad - \quad - \} \\ [0, \quad 0] \\ \{ \quad - \quad - \quad - \quad (-) \quad 2_{s'} \quad - \quad - \} \\ [r'] \end{array}$$

1.42 OD groupoid family #42

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & - & - \} \\ & [0, & 0] & & & & & \\ \{ & 2_{r'} & - & - & (-) & - & - & - \} \\ & [s'] & & & & & & \end{array}$$

1.43 OD groupoid family #43

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & - & - \} \\ & [0, & 0] & & & & & \\ \{ & - & - & - & (n_{r',s'}) & - & - & - \} \end{array}$$

1.44 OD groupoid family #44

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & - & - \} \\ & [0, & 0] & & & & & \\ \{ & - & - & - & (\overline{3}^-) & - & - & - \} \\ & [r', & s'] & & & & & \end{array}$$

1.45 OD groupoid family #45

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & - & - \} \\ & [0, & 0] & & & & & \\ \{ & - & - & - & (\overline{6}^-) & - & - & - \} \\ & [r', & s'] & & & & & \end{array}$$

2 $p\overline{11}(\overline{1})$ (7 families)

2.1 OD groupoid family #1

$$\begin{array}{cccc} p & \overline{1} & \overline{1} & (\overline{1}) \\ \{ & \overline{1} & \overline{1} & (\overline{1}) \} \\ & [0, & 0] & \end{array}$$

Is fully ordered and equivalent to:

$$P\overline{1}$$

2.2 OD groupoid family #2

$$\begin{array}{c} p \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \\ \{ \quad - \quad - \quad (2_2/n_{r,s}) \quad \} \end{array}$$

2.3 OD groupoid family #3

$$\begin{array}{c} op \quad p \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \\ \{ \quad 2_r/c_2 \quad - \quad (-) \quad \} \end{array}$$

2.4 OD groupoid family #4

$$\begin{array}{c} op \quad c \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \\ \left\{ \begin{array}{c} 2_r \\ c_2 \\ 2_{r+1} \\ n_{1,2} \end{array} \quad - \quad (-) \right\} \end{array}$$

2.5 OD groupoid family #5

$$\begin{array}{c} p \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \\ \left\{ \begin{array}{c} - \quad - \quad \left(\frac{4_4^-}{4^-} \right) \quad - \quad - \end{array} \right\} \\ [r, \quad s] \end{array}$$

2.6 OD groupoid family #6

$$\begin{array}{c} p \quad \bar{1} \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \quad \bar{1} \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\frac{3_3^-}{3^-} \right) \quad - \quad - \quad - \end{array} \right\} \\ [r, \quad s] \end{array}$$

2.7 OD groupoid family #7

$$\begin{array}{c} p \quad \bar{1} \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \quad \bar{1} \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\frac{6_6^-}{6^-} \right) \quad - \quad - \quad - \end{array} \right\} \\ [r, \quad s] \end{array}$$

3 $p_{11}(2)$ (21 families)

3.1 OD groupoid family #1

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \\ \{ \quad - \quad - \quad (2_2) \quad \} \\ [r, \quad s] \end{array}$$

3.2 OD groupoid family #2

$$\begin{array}{ccccc} p & 1 & 1 & (2) \\ \{ & \bar{1} & \bar{1} & (n_{r,s}) & \} \\ \{ & \bar{1} & \bar{1} & (n_{r',s'}) & \} \end{array}$$

3.3 OD groupoid family #3

$$\begin{array}{ccccc} op & p & 1 & 1 & (2) \\ & \{ & n_{r,2} & n_{2,s} & (-) & \} \end{array}$$

3.4 OD groupoid family #4

$$\begin{array}{ccccc} op & c & 1 & 1 & (2) \\ & \left\{ \begin{array}{ccc} n_{r,2} & n_{2,s} & (-) \end{array} \right. & \left. \begin{array}{c} \\ n_{r+1,2} & n_{2,s+1} \end{array} \right\} \end{array}$$

3.5 OD groupoid family #5

$$\begin{array}{ccccc} op & p & 1 & 1 & (2) \\ & \{ & 2_s & 2_r & (-) & \} \\ & \{ & 2_{s'} & 2_{r'} & (-) & \} \end{array}$$

3.6 OD groupoid family #6

$$\begin{array}{ccccc} op & c & 1 & 1 & (2) \\ & \left\{ \begin{array}{ccc} 2_s & 2_r & (-) \end{array} \right. & \left. \begin{array}{c} \\ 2_{s+1} & 2_{r+1} \end{array} \right\} \\ & \left\{ \begin{array}{ccc} 2_{s'} & 2_{r'} & (-) \end{array} \right. & \left. \begin{array}{c} \\ 2_{s'+1} & 2_{r'+1} \end{array} \right\} \end{array}$$

3.7 OD groupoid family #7

$$\begin{array}{ccccc} op & p & 1 & 1 & (2) \\ & \{ & \bar{1} & \bar{1} & (n_{r,s}) & \} \\ & \{ & 2_{s'} & 2_{r'} & (-) & \} \end{array}$$

3.8 OD groupoid family #8

$$\begin{array}{ccccc} op & c & 1 & 1 & (2) \\ & \left\{ \begin{array}{ccc} \bar{1} & \bar{1} & \left(\begin{array}{c} n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \end{array} \right. & \left. \begin{array}{c} \\ \\ \end{array} \right\} \\ & \left\{ \begin{array}{ccc} 2_{s'} & 2_{r'} & (-) \end{array} \right. & \left. \begin{array}{c} \\ 2_{s'+1} & 2_{r'+1} \end{array} \right\} \end{array}$$

3.9 OD groupoid family #9

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \end{array} \right) \\ [r, \quad s] \end{array} \right\} \quad - \quad - \quad \end{array}$$

3.10 OD groupoid family #10

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} 2_s & 2_r & (-) \\ - & - & (-) \end{array} \right\} \quad 2_{r'} \quad 2_{s'} \quad \end{array}$$

3.11 OD groupoid family #11

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \\ [r, \quad s] \end{array} \right\} \quad - \quad - \quad \end{array}$$

$$\left\{ \begin{array}{ccc} - & - & (-) \end{array} \right\} \quad 2_{r'} \quad 2_{s'} \quad \end{array}$$

3.12 OD groupoid family #12

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \\ [r, \quad s] \end{array} \right\} \quad - \quad - \quad \end{array}$$

$$\left\{ \begin{array}{ccc} 2_{s'} & 2_{r'} & (-) \end{array} \right\} \quad - \quad - \quad \end{array}$$

3.13 OD groupoid family #13

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \\ [r, \quad s] \end{array} \right\} \quad - \quad - \quad \end{array}$$

$$\left\{ \begin{array}{ccc} \overline{1} & \overline{1} & (n_{r',s'}) \end{array} \right\} \quad \overline{1} \quad \overline{1} \quad \end{array}$$

3.14 OD groupoid family #14

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4^-} \\ \overline{4^+} \end{array} \right) \\ [r, \quad s] \end{array} \right\} \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4^-} \\ \overline{4^+} \end{array} \right) \\ [r', \quad s'] \end{array} \right\} \end{array}$$

3.15 OD groupoid family #15

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \\ [r, \quad s] \end{array} \right\} \left(\begin{array}{c} 3_3^- \\ 6_6^+ \end{array} \right) \begin{array}{ccc} - & - & - \end{array} \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \\ [r, \quad s] \end{array} \right\} \left(\begin{array}{c} 3_3^+ \\ 6_6^- \end{array} \right) \begin{array}{ccc} - & - & - \end{array} \end{array}$$

3.16 OD groupoid family #16

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \\ [r, \quad s] \end{array} \right\} \left(\begin{array}{c} 3_3^+ \\ 6_6^- \end{array} \right) \begin{array}{ccc} - & - & - \end{array} \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \\ [r, \quad s] \end{array} \right\} \left(\begin{array}{c} 3_3^- \\ 6_6^+ \end{array} \right) \begin{array}{ccc} - & - & - \end{array} \end{array}$$

3.17 OD groupoid family #17

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} 2_r & - & - \\ - & - & 2_{r'} \end{array} \right\} \begin{array}{c} (-) \\ (-) \end{array} \begin{array}{ccc} 2_s & - & - \\ - & - & 2_{s'} \end{array} \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (2) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} 2_r & - & - \\ - & 2_{r'} & - \end{array} \right\} \begin{array}{c} (-) \\ (-) \end{array} \begin{array}{ccc} 2_s & - & - \\ - & 2_{s'} & - \end{array} \end{array}$$

3.18 OD groupoid family #18

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (2) & 1 & 1 & 1 \\ \{ & 2_r & - & - & (-) & 2_s & - & - \} \\ \{ & - & 2_{r'} & - & (-) & - & 2_{s'} & - \} \end{array}$$

Is enantiomorph of:

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (2) & 1 & 1 & 1 \\ \{ & 2_r & - & - & (-) & 2_s & - & - \} \\ \{ & - & - & 2_{r'} & (-) & - & - & 2_{s'} \} \end{array}$$

3.19 OD groupoid family #19

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (2) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}^- \\ \overline{6}^+ \end{array} \right) \end{array} \right. & - & - & - \} \\ [r, & s] & & & & & & \\ \{ & 2_{r'} & - & - & (-) & 2_{s'} & - & - \} \end{array}$$

3.20 OD groupoid family #20

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (2) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}^- \\ \overline{6}^+ \end{array} \right) \end{array} \right. & - & - & - \} \\ [r, & s] & & & & & & \\ \{ & \overline{1} & \overline{1} & \overline{1} & (n_{r',s'}) & \overline{1} & \overline{1} & \overline{1} \} \end{array}$$

3.21 OD groupoid family #21

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (2) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}^- \\ \overline{6}^+ \end{array} \right) \end{array} \right. & - & - & - \} \\ [r, & s] & & & & & & \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}^- \\ \overline{6}^+ \end{array} \right) \end{array} \right. & - & - & - \} \\ [r', & s'] & & & & & & \end{array}$$

4 $p11(m)$ (7 families)

4.1 OD groupoid family #1

$$\begin{array}{cccc} p & 1 & 1 & (m) \\ \{ & \overline{1} & \overline{1} & (2_2) \} \\ [0, & 0] & & \end{array}$$

Is fully ordered and equivalent to:

$$P_{c'=2c}112_1/m$$

4.2 OD groupoid family #2

$$\begin{array}{c} p \quad 1 \quad 1 \quad (m) \\ \left\{ \begin{array}{ccc} - & - & (n_{r,s}) \end{array} \right\} \end{array}$$

4.3 OD groupoid family #3

$$\begin{array}{c} op \quad p \quad 1 \quad 1 \quad (m) \\ \left\{ \begin{array}{ccc} n_{s,2} & 2_s & (-) \end{array} \right\} \\ [0] \end{array}$$

4.4 OD groupoid family #4

$$\begin{array}{c} op \quad c \quad 1 \quad 1 \quad (m) \\ \left\{ \begin{array}{ccc} n_{s,2} & 2_s & (-) \\ n_{s+1,2} & 2_{s+1} & (-) \end{array} \right\} \\ [0] \end{array}$$

4.5 OD groupoid family #5

$$\begin{array}{c} p \quad 1 \quad 1 \quad (m) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \end{array} \right) \end{array} \right\} \\ [0, \quad 0] \end{array}$$

4.6 OD groupoid family #6

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (m) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \end{array} \right\} \\ [0, \quad 0] \end{array}$$

4.7 OD groupoid family #7

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (m) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & - \end{array} \right\} \\ [0, \quad 0] \end{array}$$

5 $p11(a)$ (11 families)

5.1 OD groupoid family #1

$$\begin{array}{c} p \quad 1 \quad 1 \quad (a) \\ \{ \quad \bar{1} \quad \bar{1} \quad (2_2) \quad \} \\ [0, \quad 0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=2\mathbf{c}}112_1/a$$

5.2 OD groupoid family #2

$$\begin{array}{c} p \quad 1 \quad 1 \quad (a) \\ \{ \quad - \quad - \quad (n_{r,s}) \quad \} \end{array}$$

5.3 OD groupoid family #3

$$\begin{array}{c} op \quad p \quad 1 \quad 1 \quad (a) \\ \{ \quad 2_r \quad n_{2,r-1} \quad (-) \quad \} \\ [0] \end{array}$$

5.4 OD groupoid family #4

$$\begin{array}{c} op \quad p \quad 1 \quad 1 \quad (a) \\ \{ \quad n_{s,2} \quad 2_s \quad (-) \quad \} \\ [0] \end{array}$$

5.5 OD groupoid family #5

$$\begin{array}{c} op \quad c \quad 1 \quad 1 \quad (d^+) \\ \left\{ \begin{array}{c} n_{s,2} \quad 2_{s+\frac{1}{2}} \\ n_{s+1,2} \quad 2_{s+\frac{3}{2}} \end{array} \quad (-) \right\} \\ [0] \end{array}$$

5.6 OD groupoid family #6

$$\begin{array}{c} op \quad p \quad 1 \quad 1 \quad (n) \\ \{ \quad n_{s,2} \quad 2_{s+1} \quad (-) \quad \} \\ [0] \end{array}$$

5.7 OD groupoid family #7

$$\begin{array}{c} op \quad c \quad 1 \quad 1 \quad (e) \\ \left\{ \begin{array}{c} 2_r \quad n_{2,r-1} \\ 2_{r+1} \quad n_{2,r} \end{array} \quad (-) \right\} \\ [0] \end{array}$$

5.8 OD groupoid family #8

$$\left\{ \begin{array}{c} p \quad 1 \quad 1 \quad (a) \quad 1 \quad 1 \\ - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad - \quad - \\ [0, \quad 0] \end{array} \right\}$$

5.9 OD groupoid family #9

$$\left\{ \begin{array}{c} p \quad 1 \quad 1 \quad (n) \quad 1 \quad 1 \\ - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad - \quad - \\ [0, \quad 0] \end{array} \right\}$$

5.10 OD groupoid family #10

$$\left\{ \begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (a) \quad 1 \quad 1 \quad 1 \\ - \quad - \quad - \quad \left(\frac{3_3^-}{6^+} \right) \quad - \quad - \quad - \\ [0, \quad 0] \end{array} \right\}$$

5.11 OD groupoid family #11

$$\left\{ \begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (a) \quad 1 \quad 1 \quad 1 \\ - \quad - \quad - \quad \left(\frac{3^-}{6_6^+} \right) \quad - \quad - \quad - \\ [0, \quad 0] \end{array} \right\}$$

6 $p11(2/m)$ (5 families)

6.1 OD groupoid family #1

$$\left\{ \begin{array}{c} p \quad 1 \quad 1 \quad (2/m) \\ \bar{1} \quad \bar{1} \quad (2_2/n_{r,s}) \end{array} \right\}$$

6.2 OD groupoid family #2

$$\left\{ \begin{array}{c} op \quad p \quad 1 \quad 1 \quad (2/m) \\ 2_s/n_{r,2} \quad 2_r/n_{2,s} \quad (-) \end{array} \right\}$$

6.3 OD groupoid family #3

$$\left\{ \begin{array}{c} op \quad c \quad 1 \quad 1 \quad (2/m) \\ 2_s \quad 2_r \\ n_{r,2} \quad n_{2,s} \quad (-) \\ 2_{s+1} \quad 2_{r+1} \\ n_{r+1,2} \quad n_{2,s+1} \end{array} \right\}$$

6.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & - & - \\ & & [r, s] \end{array} \begin{array}{c} (2/m) \\ \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \\ - & - \end{array} \right\}$$

6.5 OD groupoid family #5

$$\left\{ \begin{array}{cccc} p & 1 & 1 & 1 \\ & - & - & - \\ & & & [r, s] \end{array} \begin{array}{c} (2/m) \\ \left(\begin{array}{c} 3_3^- \\ \overline{3}^- \\ 6_6^+ \\ \overline{6}^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ - & - & - \end{array} \right\}$$

7 $p11(2/a)$ (8 families)

7.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & \overline{1} & \overline{1} \end{array} \begin{array}{c} (2/a) \\ (2_2/n_{r,s}) \end{array} \right\}$$

7.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} op & p & 1 \\ & 2_s/n_{r,2} & 2_r/n_{2,s-1} \end{array} \begin{array}{c} (2/a) \\ (-) \end{array} \right\}$$

7.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} op & c & 1 \\ & 2_s & 2_{r+\frac{1}{2}} \\ & n_{r,2} & n_{2,s-\frac{1}{2}} \\ & 2_{s+1} & 2_{r+\frac{3}{2}} \\ & n_{r+1,2} & n_{2,s+\frac{1}{2}} \end{array} \begin{array}{c} (2/d^+) \\ (-) \end{array} \right\}$$

7.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} op & p & 1 \\ & 2_s/n_{r,2} & 2_{r+1}/n_{2,s-1} \end{array} \begin{array}{c} (2/n) \\ (-) \end{array} \right\}$$

7.5 OD groupoid family #5

$$\begin{array}{c} op \\ c \end{array} \begin{array}{cc} 1 & 1 \\ \left(\begin{array}{cc} 2_s & 2_r \\ n_{r,2} & n_{2,s+1} \\ 2_{s+1} & 2_{r+1} \\ n_{r+1,2} & n_{2,s+2} \end{array} \right. & \left. \begin{array}{c} (2/e) \\ (-) \end{array} \right) \end{array}$$

7.6 OD groupoid family #6

$$\begin{array}{c} p \\ [r, \ s] \end{array} \begin{array}{cc} 1 & 1 \\ \left(\begin{array}{c} - \\ - \end{array} \right. & \left. \begin{array}{c} (2/a) \\ \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \\ - \\ - \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \end{array}$$

7.7 OD groupoid family #7

$$\begin{array}{c} p \\ [r, \ s] \end{array} \begin{array}{cc} 1 & 1 \\ \left(\begin{array}{c} - \\ - \end{array} \right. & \left. \begin{array}{c} (2/n) \\ \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \\ - \\ - \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \end{array}$$

7.8 OD groupoid family #8

$$\begin{array}{c} p \\ [r, \ s] \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ \left(\begin{array}{c} - \\ - \\ - \end{array} \right. & \left. \begin{array}{c} (2/a) \\ \left(\begin{array}{c} 3_3^- \\ \overline{3}^- \\ 6_6^+ \\ \overline{6}^+ \end{array} \right) \\ - \\ - \\ - \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \end{array}$$

8 $p21(1)$ (7 families)

8.1 OD groupoid family #1

$$\begin{array}{c} p \\ \{ \\ [0] \end{array} \begin{array}{cc} 2 & 1 \\ 2_r & - \end{array} \begin{array}{c} (1) \\ (-) \end{array}$$

8.2 OD groupoid family #2

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \\ \{ \quad c_2 \quad \overline{1} \quad (\overline{1}) \quad \} \\ [0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{c'=2c}2/c11$$

8.3 OD groupoid family #3

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \\ \{ \quad - \quad 2_s \quad (2_2) \quad \} \\ [0] \end{array}$$

8.4 OD groupoid family #4

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \\ \{ \quad - \quad n_{2,r} \quad (n_{r,s}) \quad \} \end{array}$$

8.5 OD groupoid family #5

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad 2 \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^+) \quad 2 \quad - \quad \} \\ [s] \end{array}$$

8.6 OD groupoid family #6

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^+) \quad 2 \quad - \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad 2 \quad \} \\ [s] \end{array}$$

8.7 OD groupoid family #7

$$\begin{array}{c} p \quad 2 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

9 $p2_11(1)$ (7 families)

9.1 OD groupoid family #1

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \\ \{ \quad 2_r \quad - \quad (-) \} \\ [0] \end{array}$$

9.2 OD groupoid family #2

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \\ \{ \quad c_2 \quad \bar{1} \quad (\bar{1}) \} \\ [0] \end{array}$$

Is fully ordered and equivalent to:

$$P_{\mathbf{c}'=2\mathbf{c}}2_1/c11$$

9.3 OD groupoid family #3

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \\ \{ \quad - \quad 2_s \quad (2_2) \} \\ [0] \end{array}$$

9.4 OD groupoid family #4

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \\ \{ \quad - \quad n_{2,r+1} \quad (n_{r,s}) \} \end{array}$$

9.5 OD groupoid family #5

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad 2 \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^+) \quad 2 \quad - \} \\ [s] \end{array}$$

9.6 OD groupoid family #6

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^+) \quad 2 \quad - \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2_1 \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad 2 \} \\ [s] \end{array}$$

9.7 OD groupoid family #7

$$\left\{ \begin{array}{ccc} p & 2_1 & 1 \\ - & - & \left(\overline{4}^- \right) \end{array} \begin{array}{cc} (1) & 1 \\ - & c_2 \end{array} \right\} \begin{array}{c} [s] \end{array}$$

10 $c21(1)$ (19 families)

10.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & 2 & 1 \\ 2_r & - & (-) \\ 2_{r+1} & & \end{array} \begin{array}{c} (1) \\ \\ \end{array} \right\} \begin{array}{c} [0] \end{array}$$

10.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} c & 2 & 1 \\ c_2 & \bar{1} & (\bar{1}) \\ n_{1,2} & & \end{array} \begin{array}{c} (1) \\ \\ \end{array} \right\} \begin{array}{c} [0] \end{array}$$

Is fully ordered and equivalent to:

$$C_{c'=2c}2/c11$$

10.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} c & 2 & 1 \\ - & 2_s & (2_2) \\ 2_{s+1} & & \end{array} \begin{array}{c} (1) \\ \\ \end{array} \right\} \begin{array}{c} [0] \end{array}$$

10.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} c & 2 & 1 \\ - & n_{2,r} & \left(\begin{array}{c} n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \\ n_{2,r+1} & & \end{array} \begin{array}{c} (1) \\ \\ \end{array} \right\}$$

10.5 OD groupoid family #5

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ 2_r & - & \left(4_4^- \right) \end{array} \begin{array}{cc} (1) & 2 \\ - & - \end{array} \right\} \begin{array}{c} [0] \end{array}$$

Is enantiomorph of:

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ - & 2_s & \left(4_4^+ \right) \end{array} \begin{array}{cc} (1) & 2 \\ - & - \end{array} \right\} \begin{array}{c} [0] \end{array}$$

10.6 OD groupoid family #6

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 2 \quad 1 \\ \{ \quad - \quad 2_s \quad (4_4^+) \quad - \quad - \quad \} \\ [0] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 2 \quad 1 \\ \{ \quad 2_r \quad - \quad (4_4^-) \quad - \quad - \quad \} \\ [0] \end{array}$$

10.7 OD groupoid family #7

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad 2 \quad 1 \\ \{ \quad n_{s,2} \quad - \quad (\overline{4^-}) \quad - \quad - \quad \} \\ [0] \end{array}$$

10.8 OD groupoid family #8

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad - \quad (3_3^-) \quad - \quad - \quad 2 \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad - \quad (3_3^+) \quad 2_s \quad - \quad - \quad \} \\ [0] \end{array}$$

10.9 OD groupoid family #9

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad - \quad (3_3^+) \quad 2_s \quad - \quad - \quad \} \\ [0] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad - \quad (3_3^-) \quad - \quad - \quad 2 \quad \} \\ [s] \end{array}$$

10.10 OD groupoid family #10

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{3^-}) \quad - \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

10.11 OD groupoid family #11

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad 2 \quad - \quad (3_3^-) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (3_3^+) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

10.12 OD groupoid family #12

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (3_3^+) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad 2 \quad - \quad (3_3^-) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

10.13 OD groupoid family #13

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad n_{2,r} \quad - \quad (\overline{3}) \quad - \quad - \quad - \quad \} \\ [0] \end{array}$$

10.14 OD groupoid family #14

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (6_6^-) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (6_6^+) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

10.15 OD groupoid family #15

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (6_6^+) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad 2 \quad - \quad - \quad (6_6^-) \quad - \quad - \quad - \quad \} \\ [s] \end{array}$$

10.16 OD groupoid family #16

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad 2 \quad 1 \\ \{ \quad n_{s,2} \quad - \quad - \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\ [0] \end{array}$$

10.17 OD groupoid family #17

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^-) \quad - \quad - \quad 2 \quad \} \\ [s] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^+) \quad - \quad 2_r \quad - \quad \} \\ [0] \end{array}$$

10.18 OD groupoid family #18

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^+) \quad - \quad 2_r \quad - \quad \} \\ [0] \end{array}$$

Is enantiomorph of:

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^-) \quad - \quad - \quad 2 \quad \} \\ [s] \end{array}$$

10.19 OD groupoid family #19

$$\begin{array}{c} p \quad 2 \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{6}^-) \quad - \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

11 $pm1(1)$ (9 families)

11.1 OD groupoid family #1

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \\ \{ \quad c_2 \quad - \quad (-) \quad \} \\ [r] \end{array}$$

11.2 OD groupoid family #2

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \\ \{ \quad 2_r \quad \bar{1} \quad (\bar{1}) \quad \} \\ [0] \\ \{ \quad 2_{r'} \quad \bar{1} \quad (\bar{1}) \quad \} \\ [0] \end{array}$$

11.3 OD groupoid family #3

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \\ \{ \quad - \quad n_{2,r} \quad (2_2) \quad \} \\ [0] \end{array}$$

11.4 OD groupoid family #4

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \\ \{ \quad - \quad 2_s \quad (n_{r,s}) \quad \} \\ \{ \quad - \quad 2_{s'} \quad (n_{r',s'}) \quad \} \end{array}$$

11.5 OD groupoid family #5

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \\ \{ \quad 2_r \quad \bar{1} \quad (\bar{1}) \quad \} \\ [0] \\ \{ \quad - \quad 2_{s'} \quad (n_{r',s'}) \quad \} \end{array}$$

11.6 OD groupoid family #6

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

11.7 OD groupoid family #7

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\bar{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad 2_{r'} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \quad \} \\ [s'] \end{array}$$

11.8 OD groupoid family #8

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\bar{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad - \quad 2_{s'} \quad (n_{r',s'}) \quad - \quad - \quad \} \end{array}$$

11.9 OD groupoid family #9

$$\begin{array}{c} p \quad m \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad - \quad 2_{r'} \quad \} \\ [s'] \end{array}$$

12 $pb1(1)$ (9 families)

12.1 OD groupoid family #1

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \\ \{ \quad c_2 \quad - \quad (-) \quad \} \\ [r] \end{array}$$

12.2 OD groupoid family #2

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \\ \{ \quad 2_r \quad \overline{1} \quad (\overline{1}) \quad \} \\ \quad \quad \quad [-\frac{1}{2}] \\ \{ \quad 2_{r'} \quad \overline{1} \quad (\overline{1}) \quad \} \\ \quad \quad \quad [-\frac{1}{2}] \end{array}$$

12.3 OD groupoid family #3

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \\ \{ \quad - \quad n_{2,r} \quad (2_2) \quad \} \\ [0] \end{array}$$

12.4 OD groupoid family #4

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \\ \{ \quad - \quad 2_{s-1} \quad (n_{r,s}) \quad \} \\ \{ \quad - \quad 2_{s'+1} \quad (n_{r',s'}) \quad \} \end{array}$$

12.5 OD groupoid family #5

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \\ \{ \quad 2_r \quad \overline{1} \quad (\overline{1}) \quad \} \\ \quad \quad \quad [0] \\ \{ \quad - \quad 2_{s'+1} \quad (n_{r',s'}) \quad \} \end{array}$$

12.6 OD groupoid family #6

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (4_4^-) \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

12.7 OD groupoid family #7

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad 2_{r'} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \quad \} \\ [s'] \end{array}$$

12.8 OD groupoid family #8

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad - \quad 2_{s'+1} \quad (n_{r',s'}) \quad - \quad - \quad \} \end{array}$$

12.9 OD groupoid family #9

$$\begin{array}{c} p \quad b \quad 1 \quad (1) \quad 1 \quad 1 \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad 2 \quad - \quad \} \\ [s] \\ \{ \quad - \quad - \quad (\overline{4}^-) \quad - \quad 2_{r'} \quad \} \\ [s'] \end{array}$$

13 $cm1(1)$ (27 families)

13.1 OD groupoid family #1

$$\begin{array}{c} c \quad m \quad 1 \quad (1) \\ \left\{ \begin{array}{c} c_2 \\ n_{1,2} \\ [r] \end{array} \quad - \quad (-) \right\} \end{array}$$

13.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} c & m & 1 \\ & 2_r & \bar{1} \\ & 2_{r+1} & (\bar{1}) \end{array} \begin{array}{c} (1) \\ (\bar{1}) \end{array} \right\}$$

$$\left\{ \begin{array}{ccc} & 2_{r'} & \bar{1} \\ & 2_{r'+1} & (\bar{1}) \end{array} \begin{array}{c} [0] \\ (1) \end{array} \right\}$$

13.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} c & m & 1 \\ & - & n_{2,r} \\ & & n_{2,r+1} \end{array} \begin{array}{c} (1) \\ (2_2) \end{array} \right\}$$

$$[0]$$

13.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} c & m & 1 \\ & - & 2_s \\ & & 2_{s+1} \end{array} \begin{array}{c} (1) \\ n_{r,s} \\ n_{r+1,s+1} \end{array} \right\}$$

$$\left\{ \begin{array}{ccc} & 2_{s'} & \\ & - & 2_{s'+1} \end{array} \begin{array}{c} n_{r',s'} \\ n_{r'+1,s'+1} \end{array} \right\}$$

13.5 OD groupoid family #5

$$\left\{ \begin{array}{ccc} c & m & 1 \\ & 2_r & \bar{1} \\ & 2_{r+1} & (\bar{1}) \end{array} \begin{array}{c} (1) \\ (\bar{1}) \end{array} \right\}$$

$$[0]$$

$$\left\{ \begin{array}{ccc} & 2_{s'} & \\ & - & 2_{s'+1} \end{array} \begin{array}{c} n_{r',s'} \\ n_{r'+1,s'+1} \end{array} \right\}$$

13.6 OD groupoid family #6

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & n_{s,2} & - \end{array} \begin{array}{c} (1) \\ (4_4^-) \end{array} \begin{array}{c} m \\ - \end{array} \begin{array}{c} 1 \\ - \end{array} \right\}$$

$$[0]$$

13.7 OD groupoid family #7

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & - & 2_s \end{array} \begin{array}{c} (1) \\ (\bar{4}^-) \end{array} \begin{array}{c} m \\ - \end{array} \begin{array}{c} 1 \\ - \end{array} \right\}$$

$$[0]$$

$$\left\{ \begin{array}{ccc} \bar{1} & \bar{1} & (\bar{1}) \\ [s'] & & \end{array} \begin{array}{c} 2_{r'} \\ \bar{1} \end{array} \right\}$$

13.8 OD groupoid family #8

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad m \quad 1 \\ \{ \quad - \quad 2_s \quad \left(\overline{4^-}\right) \quad - \quad - \quad \} \\ [0] \\ \{ \quad - \quad - \quad (n_{r',s'}) \quad - \quad 2_{\frac{r'}{2}-\frac{s'}{2}} \quad \} \end{array}$$

13.9 OD groupoid family #9

$$\begin{array}{c} p \quad 1 \quad 1 \quad (1) \quad m \quad 1 \\ \{ \quad - \quad 2_s \quad \left(\overline{4^-}\right) \quad - \quad - \quad \} \\ [0] \\ \{ \quad 2_{r'} \quad - \quad \left(\overline{4^-}\right) \quad - \quad - \quad \} \\ [s'] \end{array}$$

13.10 OD groupoid family #10

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad - \quad - \quad - \quad \left(\overline{3_3^-}\right) \quad - \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

13.11 OD groupoid family #11

$$\begin{array}{c} p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad n_{2,r} \quad - \quad \left(\overline{3_3^-}\right) \quad - \quad - \quad - \quad \} \\ [0] \end{array}$$

13.12 OD groupoid family #12

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad - \quad - \quad - \quad \left(\overline{3^-}\right) \quad 2_s \quad - \quad - \quad \} \\ [0] \\ \{ \quad \bar{1} \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad 2_{r'} \quad \bar{1} \quad \} \\ [s'] \end{array}$$

13.13 OD groupoid family #13

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad - \quad - \quad - \quad \left(\overline{3^-}\right) \quad 2_s \quad - \quad - \quad \} \\ [0] \\ \{ \quad - \quad - \quad - \quad \left(\overline{3^-}\right) \quad - \quad - \quad 2_{r'} \quad \} \\ [s'] \end{array}$$

13.14 OD groupoid family #14

$$\begin{array}{c} p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (\overline{3}^-) \quad - \quad - \quad - \quad \} \\ [s] \\ \{ \quad 2_{r'} \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad \bar{1} \quad \bar{1} \quad \} \\ [s'] \end{array}$$

13.15 OD groupoid family #15

$$\begin{array}{c} p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (\overline{3}^-) \quad - \quad - \quad - \quad \} \\ [s] \\ \{ \quad - \quad 2_{r'} \quad - \quad (\overline{3}^-) \quad - \quad - \quad - \quad \} \\ [s'] \end{array}$$

13.16 OD groupoid family #16

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad n_{s,2} \quad - \quad - \quad (6_6^-) \quad - \quad - \quad - \quad \} \\ [0] \end{array}$$

13.17 OD groupoid family #17

$$\begin{array}{c} p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\ \{ \quad - \quad - \quad - \quad (6_6^-) \quad - \quad - \quad c_2 \quad \} \\ [s] \end{array}$$

13.18 OD groupoid family #18

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad - \quad - \quad - \quad (\overline{3}^-) \quad 2_s \quad - \quad - \quad \} \\ [0] \\ \{ \quad - \quad 2_{-\frac{r'}{2}+s'} \quad - \quad (n_{r',s'}) \quad - \quad - \quad - \quad \} \end{array}$$

13.19 OD groupoid family #19

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\ \{ \quad - \quad - \quad 2 \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\ [s] \\ \{ \quad \bar{1} \quad \bar{1} \quad \bar{1} \quad (\bar{1}) \quad \bar{1} \quad 2_{r'} \quad \bar{1} \quad \} \\ [s'] \end{array}$$

13.20 OD groupoid family #20

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\
 \{ \quad - \quad - \quad 2 \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad - \quad 2_{-\frac{r'}{2}+s'} \quad - \quad (n_{r',s'}) \quad - \quad - \quad - \quad \}
 \end{array}$$

13.21 OD groupoid family #21

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\
 \{ \quad - \quad - \quad 2 \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad - \quad - \quad - \quad (\overline{3}^-) \quad - \quad - \quad 2_{r'} \quad \} \\
 [s']
 \end{array}$$

13.22 OD groupoid family #22

$$\begin{array}{c}
 p \quad 1 \quad 1 \quad 1 \quad (1) \quad 1 \quad m \quad 1 \\
 \{ \quad - \quad - \quad 2 \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad 2_{r'} \quad - \quad - \quad (\overline{6}^-) \quad - \quad - \quad - \quad \} \\
 [s']
 \end{array}$$

13.23 OD groupoid family #23

$$\begin{array}{c}
 p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad 2 \quad (\overline{3}^-) \quad - \quad - \quad - \quad \} \\
 [s] \\
 \{ \quad - \quad - \quad - \quad (n_{r',s'}) \quad 2_{\frac{s'}{2}} \quad - \quad - \quad \}
 \end{array}$$

13.24 OD groupoid family #24

$$\begin{array}{c}
 p \quad m \quad 1 \quad 1 \quad (1) \quad 1 \quad 1 \quad 1 \\
 \{ \quad - \quad - \quad - \quad (\overline{6}^-) \quad - \quad 2_r \quad - \quad \} \\
 [0] \\
 \{ \quad 2_{r'} \quad \overline{1} \quad \overline{1} \quad (\overline{1}) \quad \overline{1} \quad \overline{1} \quad \overline{1} \quad \} \\
 [s']
 \end{array}$$

13.25 OD groupoid family #25

$$\begin{array}{ccccccc} p & m & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & 2_r & - \} \\ & & [0] & & & & & \\ \{ & - & - & - & (n_{r',s'}) & 2_{\frac{s'}{2}} & - & - \} \end{array}$$

13.26 OD groupoid family #26

$$\begin{array}{ccccccc} p & m & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & 2_r & - \} \\ & & [0] & & & & & \\ \{ & - & 2_{r'} & - & (\overline{3}^-) & - & - & - \} \\ & & [s'] & & & & & \end{array}$$

13.27 OD groupoid family #27

$$\begin{array}{ccccccc} p & m & 1 & 1 & (1) & 1 & 1 & 1 \\ \{ & - & - & - & (\overline{6}^-) & - & 2_r & - \} \\ & & [0] & & & & & \\ \{ & - & - & - & (\overline{6}^-) & - & - & 2_{r'} \} \\ & & [s'] & & & & & \end{array}$$

14 $p2/m1(1)$ (3 families)

14.1 OD groupoid family #1

$$\begin{array}{ccccccc} p & 2/m & 1 & (1) \\ \{ & 2_r/c_2 & \overline{1} & (\overline{1}) \} \end{array}$$

14.2 OD groupoid family #2

$$\begin{array}{ccccccc} p & 2/m & 1 & (1) \\ \{ & - & 2_s/n_{2,r} & (2_2/n_{r,s}) \} \end{array}$$

14.3 OD groupoid family #3

$$\begin{array}{ccccccc} p & 2/m & 1 & (1) & 1 & 1 \\ \left\{ & - & - & \left(\begin{array}{c} \overline{4_4^-} \\ \overline{4^-} \end{array} \right) & - & \begin{array}{c} 2_r \\ n_{2,s} \end{array} \right\} \end{array}$$

15 $p2_1/m1(1)$ (3 families)

15.1 OD groupoid family #1

$$\begin{array}{c} p \quad 2_1/m \quad 1 \quad (1) \\ \{ \quad 2_r/c_2 \quad \bar{1} \quad (\bar{1}) \quad \} \end{array}$$

15.2 OD groupoid family #2

$$\begin{array}{c} p \quad 2_1/m \quad 1 \quad (1) \\ \{ \quad - \quad 2_s/n_{2,r+1} \quad (2_2/n_{r,s}) \quad \} \end{array}$$

15.3 OD groupoid family #3

$$\begin{array}{c} p \quad 2_1/m \quad 1 \quad (1) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^-} \right) \quad - \quad \frac{2_r}{n_{2,s}} \quad \right\} \end{array}$$

16 $p2/b1(1)$ (3 families)

16.1 OD groupoid family #1

$$\begin{array}{c} p \quad 2/b \quad 1 \quad (1) \\ \{ \quad 2_r/c_2 \quad \bar{1} \quad (\bar{1}) \quad \} \end{array}$$

16.2 OD groupoid family #2

$$\begin{array}{c} p \quad 2/b \quad 1 \quad (1) \\ \{ \quad - \quad 2_{s+1}/n_{2,r} \quad (2_2/n_{r,s}) \quad \} \end{array}$$

16.3 OD groupoid family #3

$$\begin{array}{c} p \quad 2/b \quad 1 \quad (1) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^-} \right) \quad - \quad \frac{2_r}{n_{2,s}} \quad \right\} \end{array}$$

17 $p2_1/b1(1)$ (3 families)

17.1 OD groupoid family #1

$$\begin{array}{c} p \quad 2_1/b \quad 1 \quad (1) \\ \{ \quad 2_r/c_2 \quad \bar{1} \quad (\bar{1}) \quad \} \end{array}$$

17.2 OD groupoid family #2

$$\begin{array}{c} p \quad 2_1/b \quad 1 \quad (1) \\ \{ \quad - \quad 2_{s+1}/n_{2,r+1} \quad (2_2/n_{r,s}) \quad \} \end{array}$$

17.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & 2_1/b & 1 & (1) & 1 & 1 & \\ & - & - & \left(\frac{4_4^-}{4} \right) & - & 2_r & \\ & & & & & n_{2,s} & \end{array} \right\}$$

18 $c2/m1(1)$ (7 families)

18.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} c & 2/m & 1 & (1) & & & \\ & 2_r & & & & & \\ & c_2 & \bar{1} & (\bar{1}) & & & \\ & 2_{r+1} & & & & & \\ & n_{1,2} & & & & & \end{array} \right\}$$

18.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} c & 2/m & 1 & (1) & & & \\ & 2_s & & & & & \\ & n_{2,r} & & & & & \\ & 2_{s+1} & & & & & \\ & n_{2,r+1} & & & & & \end{array} \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \right\}$$

18.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & (1) & 2/m & 1 & \\ & 2_r & - & \left(\frac{4_4^-}{4} \right) & - & - & \\ & n_{s,2} & & & & & \end{array} \right\}$$

18.4 OD groupoid family #4

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 2/m & 1 \\ & - & - & - & \left(\frac{3_3^-}{3} \right) & - & - & 2_r \\ & & & & & & & n_{2,s} \end{array} \right\}$$

18.5 OD groupoid family #5

$$\left\{ \begin{array}{ccccccc} p & 2/m & 1 & 1 & (1) & 1 & 1 & 1 \\ & - & 2_r & - & \left(\frac{3_3^-}{3} \right) & - & - & - \\ & & n_{2,s} & & & & & \end{array} \right\}$$

18.6 OD groupoid family #6

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (1) & 1 & 2/m & 1 \\ & 2_r & - & - & \left(\frac{6_6^-}{6} \right) & - & - & - \\ & n_{s,2} & & & & & & \end{array} \right\}$$

18.7 OD groupoid family #7

$$\left\{ \begin{array}{ccccccc} p & 2/m & 1 & 1 & \begin{pmatrix} (1) \\ \overline{6_6} \end{pmatrix} & 1 & 1 & 1 \\ - & - & - & - & - & - & - & 2_r \\ & & & & & & & n_{2,s} \end{array} \right\}$$

19 $p22(2)$ (4 families)

19.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & 2 & 2 & (2) \\ 2_s & 2_r & (2_2) & \end{array} \right\}$$

19.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & 2 & 2 & (2) \\ n_{s,2} & n_{2,r} & (n_{r,s}) & \end{array} \right\}$$

19.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & 2 & 2 & \begin{pmatrix} (2) \\ \overline{4_4} \end{pmatrix} & 1 & 1 \\ - & - & - & - & 2_r & 2_s \end{array} \right\}$$

19.4 OD groupoid family #4

$$\left\{ \begin{array}{ccccccc} p & 2 & 2 & \begin{pmatrix} (2) \\ \overline{4} \end{pmatrix} & 1 & 1 \\ - & - & - & - & n_{2,r} & n_{2,s} \end{array} \right\}$$

20 $p2_12(2)$ (4 families)

20.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & 2_1 & 2 & (2) \\ 2_s & 2_r & (2_2) & \end{array} \right\}$$

20.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & 2_1 & 2 & (2) \\ n_{s,2} & n_{2,r+1} & (n_{r,s}) & \end{array} \right\}$$

20.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & 2_1 & 2 & \begin{pmatrix} (2) \\ \overline{4_4} \end{pmatrix} & 1 & 1 \\ - & - & - & - & 2_r & 2_s \end{array} \right\}$$

20.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} p & 2_1 & 2 \\ - & - & \left(\begin{array}{c} (2) \\ \overline{4}^- \\ 4^+ \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \\ n_{2,r} & n_{2,s} \end{array} \right\}$$

21 $p2_12_1(2)$ (4 families)

21.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 2_1 & 2_1 \\ 2_s & 2_r & (2) \end{array} \begin{array}{c} (2) \\ (2_2) \end{array} \right\}$$

21.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 2_1 & 2_1 \\ n_{s+1,2} & n_{2,r+1} & (n_{r,s}) \end{array} \begin{array}{c} (2) \\ (n_{r,s}) \end{array} \right\}$$

21.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & 2_1 & 2_1 \\ - & - & \left(\begin{array}{c} (2) \\ 4_4^- \\ 4_4^+ \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \\ 2_r & 2_s \end{array} \right\}$$

21.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} p & 2_1 & 2_1 \\ - & - & \left(\begin{array}{c} (2) \\ \overline{4}^- \\ 4^+ \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \\ n_{2,r} & n_{2,s} \end{array} \right\}$$

22 $c22(2)$ (7 families)

22.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & 2 & 2 \\ 2_s & 2_r & (2) \\ 2_{s+1} & 2_{r+1} & (2_2) \end{array} \right\}$$

22.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} c & 2 & 2 \\ n_{s,2} & n_{2,r} & (2) \\ n_{s+1,2} & n_{2,r+1} & \left(\begin{array}{c} n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \end{array} \right\}$$

22.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & 1 & 1 & (2) \\ & 2_s & 2_r & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \end{array} \right) & 2 & 2 \\ & & & & - & - \end{array} \right\}$$

22.4 OD groupoid family #4

$$\left\{ \begin{array}{cccc} p & 1 & 1 & (2) \\ & n_{r,2} & n_{2,s} & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2 & 2 \\ & & & & - & - \end{array} \right\}$$

22.5 OD groupoid family #5

$$\left\{ \begin{array}{cccc} p & 2 & 1 & 1 & (2) & 2 & 1 & 1 \\ & - & 2_r & - & \left(\begin{array}{c} 3_3^- \\ 6_6^+ \end{array} \right) & - & 2_s & - \end{array} \right\}$$

Is enantiomorph of:

$$\left\{ \begin{array}{cccc} p & 2 & 1 & 1 & (2) & 2 & 1 & 1 \\ & - & - & 2_r & \left(\begin{array}{c} 3_3^+ \\ 6_6^- \end{array} \right) & - & - & 2_s \end{array} \right\}$$

22.6 OD groupoid family #6

$$\left\{ \begin{array}{cccc} p & 2 & 1 & 1 & (2) & 2 & 1 & 1 \\ & - & - & 2_r & \left(\begin{array}{c} 3_3^+ \\ 6_6^- \end{array} \right) & - & - & 2_s \end{array} \right\}$$

Is enantiomorph of:

$$\left\{ \begin{array}{cccc} p & 2 & 1 & 1 & (2) & 2 & 1 & 1 \\ & - & 2_r & - & \left(\begin{array}{c} 3_3^- \\ 6_6^+ \end{array} \right) & - & 2_s & - \end{array} \right\}$$

22.7 OD groupoid family #7

$$\left\{ \begin{array}{cccc} p & 2 & 1 & 1 & (2) & 2 & 1 & 1 \\ & - & n_{2,r} & - & \left(\begin{array}{c} \overline{3}^- \\ \overline{6}^+ \end{array} \right) & - & n_{2,s} & - \end{array} \right\}$$

23 $pmm(2)$ (5 families)

23.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & m & m \\ & n_{r,2} & n_{2,s} \end{array} \begin{array}{c} (2) \\ (2_2) \end{array} \right\}$$

23.2 OD groupoid family #2

$$\begin{array}{cccc} p & m & m & (2) \\ \{ & 2_r & 2_s & (n_{r,s}) \} \\ \{ & 2_{r'} & 2_{s'} & (n_{r',s'}) \} \end{array}$$

23.3 OD groupoid family #3

$$\begin{array}{cccccc} p & m & m & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \end{array} \right) & n_{2,r} & n_{2,s} \end{array} \right\} \end{array}$$

23.4 OD groupoid family #4

$$\begin{array}{cccccc} p & m & m & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_r & 2_s \end{array} \right\} \\ \{ & 2_{r'} & 2_{s'} & (n_{r',s'}) & \overline{1} & \overline{1} \} \end{array}$$

23.5 OD groupoid family #5

$$\begin{array}{cccccc} p & m & m & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_r & 2_s \end{array} \right\} \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{r'} & 2_{s'} \end{array} \right\} \end{array}$$

24 $pma(2)$ (5 families)

24.1 OD groupoid family #1

$$\begin{array}{cccc} p & m & a & (2) \\ \{ & n_{r,2} & n_{2,s} & (2_2) \} \end{array}$$

24.2 OD groupoid family #2

$$\begin{array}{cccc} p & m & a & (2) \\ \{ & 2_{r-1} & 2_s & (n_{r,s}) \} \\ \{ & 2_{r'+1} & 2_{s'} & (n_{r',s'}) \} \end{array}$$

24.3 OD groupoid family #3

$$\begin{array}{cccccc} p & m & a & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \end{array} \right) & n_{2,r} & n_{2,s} \end{array} \right\} \end{array}$$

24.4 OD groupoid family #4

$$\begin{array}{cccccc} p & m & a & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_r & 2_s \end{array} \right\} \\ \left\{ \begin{array}{ccc} 2_{r'+1} & 2_{s'} & (n_{r',s'}) & \bar{1} & \bar{1} \end{array} \right\} \end{array}$$

24.5 OD groupoid family #5

$$\begin{array}{cccccc} p & m & a & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_r & 2_s \end{array} \right\} \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{r'} & 2_{s'} \end{array} \right\} \end{array}$$

25 $pba(2)$ (5 families)

25.1 OD groupoid family #1

$$\begin{array}{cccc} p & b & a & (2) \\ \left\{ \begin{array}{ccc} n_{r,2} & n_{2,s} & (2_2) \end{array} \right\} \end{array}$$

25.2 OD groupoid family #2

$$\begin{array}{cccc} p & b & a & (2) \\ \left\{ \begin{array}{ccc} 2_{r-1} & 2_{s-1} & (n_{r,s}) \end{array} \right\} \\ \left\{ \begin{array}{ccc} 2_{r'+1} & 2_{s'+1} & (n_{r',s'}) \end{array} \right\} \end{array}$$

25.3 OD groupoid family #3

$$\begin{array}{cccccc} p & b & a & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}_4^- \\ \overline{4}_4^+ \end{array} \right) & n_{2,r} & n_{2,s} \end{array} \right\} \end{array}$$

25.4 OD groupoid family #4

$$\begin{array}{cccccc} p & b & a & (2) & 1 & 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_r & 2_s \end{array} \right\} \\ \left\{ \begin{array}{ccc} 2_{r'+1} & 2_{s'+1} & (n_{r',s'}) & \bar{1} & \bar{1} \end{array} \right\} \end{array}$$

25.5 OD groupoid family #5

$$\begin{array}{c} p \quad b \quad a \quad (2) \quad 1 \quad 1 \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} 2_r & 2_s \end{array} \quad \left. \right\} \\ \left\{ \begin{array}{ccc} - & - & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} 2_{r'} & 2_{s'} \end{array} \quad \left. \right\} \end{array}$$

26 $cmm(2)$ (8 families)

26.1 OD groupoid family #1

$$\begin{array}{c} c \quad m \quad m \quad (2) \\ \left\{ \begin{array}{ccc} n_{r,2} & n_{2,s} & \\ n_{r+1,2} & n_{2,s+1} & \end{array} \right. \quad \left(\begin{array}{c} 2_2 \end{array} \right) \quad \left. \right\} \end{array}$$

26.2 OD groupoid family #2

$$\begin{array}{c} c \quad m \quad m \quad (2) \\ \left\{ \begin{array}{ccc} 2_r & 2_s & \left(\begin{array}{c} n_{r,s} \end{array} \right) \\ 2_{r+1} & 2_{s+1} & \left(\begin{array}{c} n_{r+1,s+1} \end{array} \right) \\ 2_{r'} & 2_{s'} & \left(\begin{array}{c} n_{r',s'} \end{array} \right) \\ 2_{r'+1} & 2_{s'+1} & \left(\begin{array}{c} n_{r'+1,s'+1} \end{array} \right) \end{array} \right. \quad \left. \right\} \end{array}$$

26.3 OD groupoid family #3

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad m \quad m \\ \left\{ \begin{array}{ccc} n_{r,2} & n_{2,s} & \left(\begin{array}{c} \overline{4}_4^- \\ \overline{4}_4^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} - & - \end{array} \quad \left. \right\} \end{array}$$

26.4 OD groupoid family #4

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad m \quad m \\ \left\{ \begin{array}{ccc} 2_s & 2_r & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} - & - \end{array} \quad \left. \right\} \\ \left\{ \begin{array}{ccc} \bar{1} & \bar{1} & (n_{r',s'}) \end{array} \right. \quad \begin{array}{cc} 2_{\frac{r'}{2} + \frac{s'}{2}} & 2_{\frac{r'}{2} - \frac{s'}{2}} \end{array} \quad \left. \right\} \end{array}$$

26.5 OD groupoid family #5

$$\begin{array}{c} p \quad 1 \quad 1 \quad (2) \quad m \quad m \\ \left\{ \begin{array}{ccc} 2_s & 2_r & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} - & - \end{array} \quad \left. \right\} \\ \left\{ \begin{array}{ccc} 2_{s'} & 2_{r'} & \left(\begin{array}{c} \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \right. \quad \begin{array}{cc} - & - \end{array} \quad \left. \right\} \end{array}$$

26.6 OD groupoid family #6

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & \begin{pmatrix} (2) \\ \overline{3} \\ 6^+ \end{pmatrix} & m & 1 & 1 \\ - & n_{2,r} & - & - & - & n_{2,s} & - \end{array} \right\}$$

26.7 OD groupoid family #7

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & \begin{pmatrix} (2) \\ \overline{3} \\ 6^+ \end{pmatrix} & m & 1 & 1 \\ - & - & - & 2_r & - & - & 2_s \end{array} \right\}$$

$$\left\{ \begin{array}{ccccccc} 2_{r'-\frac{s'}{2}} & \bar{1} & \bar{1} & (n_{r',s'}) & 2_{\frac{s'}{2}} & \bar{1} & \bar{1} \end{array} \right\}$$

26.8 OD groupoid family #8

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & \begin{pmatrix} (2) \\ \overline{3} \\ 6^+ \end{pmatrix} & m & 1 & 1 \\ - & - & - & 2_r & - & - & 2_s \end{array} \right\}$$

$$\left\{ \begin{array}{ccccccc} - & 2_{r'} & - & \begin{pmatrix} \overline{3} \\ 6^+ \end{pmatrix} & - & 2_{s'} & - \end{array} \right\}$$

27 $pm2(m)$ (3 families)

27.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & 2 & (m) \\ n_{s,2} & 2_s & (n_{r,s}) \end{array} \right\}$$

27.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & 2 & (m) \\ 2_r & n_{2,r} & (2_2) \end{array} \right\}$$

$$[0]$$

27.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & m & 2 & (m) & 1 & 1 \\ - & - & \begin{pmatrix} 4_4^- \\ 4^+ \end{pmatrix} & 2 & c_2 \end{array} \right\}$$

$$[s]$$

28 $pm2_1(b)$ (3 families)

28.1 OD groupoid family #1

$$\begin{array}{c} p \quad m \quad 2_1 \quad (b) \\ \{ \quad n_{s+1,2} \quad 2_s \quad (n_{r,s}) \quad \} \end{array}$$

28.2 OD groupoid family #2

$$\begin{array}{c} p \quad m \quad 2_1 \quad (b) \\ \{ \quad 2_r \quad n_{2,r} \quad (2_2) \quad \} \\ [0] \end{array}$$

28.3 OD groupoid family #3

$$\begin{array}{c} p \quad m \quad 2_1 \quad (b) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad 2 \quad n_{2,\frac{1}{2}} \quad \right\} \\ [s] \end{array}$$

29 $pb2_1(m)$ (3 families)

29.1 OD groupoid family #1

$$\begin{array}{c} p \quad b \quad 2_1 \quad (m) \\ \{ \quad n_{s+1,2} \quad 2_{s+1} \quad (n_{r,s}) \quad \} \end{array}$$

29.2 OD groupoid family #2

$$\begin{array}{c} p \quad b \quad 2_1 \quad (m) \\ \{ \quad 2_r \quad n_{2,r} \quad (2_2) \quad \} \\ [0] \end{array}$$

29.3 OD groupoid family #3

$$\begin{array}{c} p \quad b \quad 2_1 \quad (m) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad 2 \quad c_2 \quad \right\} \\ [s] \end{array}$$

30 $pb2(b)$ (3 families)

30.1 OD groupoid family #1

$$\begin{array}{c} p \quad b \quad 2 \quad (b) \\ \{ \quad n_{s,2} \quad 2_{s+1} \quad (n_{r,s}) \quad \} \end{array}$$

30.2 OD groupoid family #2

$$\begin{array}{c} p \quad b \quad 2 \quad (b) \\ \{ \quad 2_r \quad n_{2,r} \quad (2_2) \quad \} \\ [0] \end{array}$$

30.3 OD groupoid family #3

$$\begin{array}{c} p \quad b \quad 2 \quad (b) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad 2 \quad n_{2,-\frac{1}{2}} \quad \right\} \\ [s] \end{array}$$

31 $pm2(a)$ (3 families)

31.1 OD groupoid family #1

$$\begin{array}{c} p \quad m \quad 2 \quad (a) \\ \{ \quad n_{s,2} \quad 2_s \quad (n_{r,s}) \quad \} \end{array}$$

31.2 OD groupoid family #2

$$\begin{array}{c} p \quad m \quad 2 \quad (a) \\ \{ \quad 2_r \quad n_{2,r-1} \quad (2_2) \quad \} \\ [0] \end{array}$$

31.3 OD groupoid family #3

$$\begin{array}{c} p \quad m \quad 2 \quad (a) \quad 1 \quad 1 \\ \left\{ \quad - \quad - \quad \left(\frac{4_4^-}{4^+} \right) \quad 2 \quad n_{2,\frac{1}{2}} \quad \right\} \\ [s] \end{array}$$

32 $pm2_1(n)$ (3 families)

32.1 OD groupoid family #1

$$\begin{array}{c} p \quad m \quad 2_1 \quad (n) \\ \{ \quad n_{s+1,2} \quad 2_s \quad (n_{r,s}) \quad \} \end{array}$$

32.2 OD groupoid family #2

$$\begin{array}{c} p \quad m \quad 2_1 \quad (n) \\ \{ \quad 2_r \quad n_{2,r+1} \quad (2_2) \quad \} \\ [0] \end{array}$$

32.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & m & 2_1 \\ - & - & \left(\frac{4_4^-}{4^+} \right) \end{array} \begin{array}{c} (n) \\ 2 \end{array} \begin{array}{c} 1 \\ c_2 \end{array} \right\} \begin{array}{c} 1 \\ [s] \end{array}$$

33 $pb2_1(a)$ (3 families)

33.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & 2_1 \\ n_{s+1,2} & 2_{s+1} & (n_{r,s}) \end{array} \begin{array}{c} (a) \\ (2_2) \end{array} \right\}$$

33.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & 2_1 \\ 2_r & n_{2,r+1} & (a) \end{array} \begin{array}{c} (a) \\ (2_2) \end{array} \right\} \begin{array}{c} [0] \end{array}$$

33.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & b & 2_1 \\ - & - & \left(\frac{4_4^-}{4^+} \right) \end{array} \begin{array}{c} (a) \\ 2 \end{array} \begin{array}{c} 1 \\ n_{2,-\frac{1}{2}} \end{array} \right\} \begin{array}{c} 1 \\ [s] \end{array}$$

34 $pb2(n)$ (3 families)

34.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & 2 \\ n_{s,2} & 2_{s+1} & (n_{r,s}) \end{array} \begin{array}{c} (n) \\ (n_{r,s}) \end{array} \right\}$$

34.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & 2 \\ 2_r & n_{2,r-1} & (n) \end{array} \begin{array}{c} (n) \\ (2_2) \end{array} \right\} \begin{array}{c} [0] \end{array}$$

34.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & b & 2 \\ - & - & \left(\frac{4_4^-}{4^+} \right) \end{array} \begin{array}{c} (n) \\ 2 \end{array} \begin{array}{c} 1 \\ c_2 \end{array} \right\} \begin{array}{c} 1 \\ [s] \end{array}$$

35 $cm2(m)$ (7 families)

35.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & m & 2 \\ n_{s,2} & 2_s & \\ n_{s+1,2} & 2_{s+1} & \end{array} \quad \begin{array}{c} (m) \\ n_{r,s} \\ n_{r+1,s+1} \end{array} \right\}$$

35.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} c & m & 2 \\ 2_r & n_{2,r} & \\ 2_{r+1} & n_{2,r+1} & \end{array} \quad \begin{array}{c} (m) \\ 2_2 \\ [0] \end{array} \right\}$$

35.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ n_{s,2} & 2_s & \end{array} \quad \begin{array}{c} (m) \\ 4_4^- \\ 4_4^+ \end{array} \quad \begin{array}{cc} m & 2 \\ - & - \end{array} \right\}$$

[0]

35.4 OD groupoid family #4

$$\left\{ \begin{array}{cccc} p & 1 & 2 & 1 \\ - & - & 2 & \end{array} \quad \begin{array}{c} (m) \\ 3_3^- \\ 6_6^+ \end{array} \quad \begin{array}{ccc} 1 & m & 1 \\ - & - & c_2 \end{array} \right\}$$

[s]

35.5 OD groupoid family #5

$$\left\{ \begin{array}{cccc} p & 1 & 2 & 1 \\ - & - & c_2 & \end{array} \quad \begin{array}{c} (m) \\ 3_3^- \\ 6_6^+ \end{array} \quad \begin{array}{ccc} 1 & m & 1 \\ - & - & 2 \end{array} \right\}$$

[s]

35.6 OD groupoid family #6

$$\left\{ \begin{array}{cccc} p & m & 1 & 1 \\ - & n_{2,r} & - & \end{array} \quad \begin{array}{c} (m) \\ 3_3^- \\ 6_6^+ \end{array} \quad \begin{array}{ccc} 2 & 1 & 1 \\ - & 2_r & - \end{array} \right\}$$

[0]

35.7 OD groupoid family #7

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & (m) & 2 & 1 & 1 \\ - & 2 & - & \left(\begin{array}{c} \overline{3} \\ 6_6^+ \end{array} \right) & - & c_2 & - \end{array} \right\}_{[s]}$$

36 $cm2(e)$ (7 families)

36.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & m & 2 \\ n_{s,2} & 2_s & \left(\begin{array}{c} (e) \\ n_{r,s} \end{array} \right) \\ n_{s+1,2} & 2_{s+1} & \left(\begin{array}{c} n_{r+1,s+1} \end{array} \right) \end{array} \right\}$$

36.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} c & m & 2 \\ 2_r & n_{2,r-1} & (e) \\ 2_{r+1} & n_{2,r} & \left(\begin{array}{c} 2_2 \end{array} \right) \end{array} \right\}_{[0]}$$

36.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & 1 & 1 & (e) \\ n_{s,2} & 2_{s-1} & \left(\begin{array}{c} 4_4^- \\ 4^+ \end{array} \right) & m & 2 \\ - & - & - & - & - \end{array} \right\}_{[0]}$$

36.4 OD groupoid family #4

$$\left\{ \begin{array}{ccccccc} p & 1 & 2 & 1 & (e) & 1 & m & 1 \\ - & - & 2 & \left(\begin{array}{c} \overline{3} \\ 6^+ \end{array} \right) & - & - & n_{2,-\frac{3}{2}} \end{array} \right\}_{[s]}$$

36.5 OD groupoid family #5

$$\left\{ \begin{array}{ccccccc} p & 1 & 2 & 1 & (e) & 1 & m & 1 \\ - & - & c_2 & \left(\begin{array}{c} \overline{3} \\ 6_6^+ \end{array} \right) & - & - & 2_{-\frac{1}{2}} \end{array} \right\}_{[s]}$$

36.6 OD groupoid family #6

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & (e) & 2 & 1 & 1 \\ - & n_{2,r} & - & \left(\frac{3_3^-}{6^+} \right) & - & 2_{r-\frac{1}{2}} & - & \end{array} \right\}_{[0]}$$

36.7 OD groupoid family #7

$$\left\{ \begin{array}{ccccccc} p & m & 1 & 1 & (e) & 2 & 1 & 1 \\ - & 2 & - & \left(\frac{3^-}{6_6^+} \right) & - & n_{2,\frac{1}{2}} & - & \end{array} \right\}_{[s]}$$

37 $pmm(m)$ (2 families)

37.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & m & (m) \\ 2_r/n_{s,2} & 2_s/n_{2,r} & (2_2/n_{r,s}) & \end{array} \right\}$$

37.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & m & m & (m) & 1 & 1 \\ - & - & \left(\frac{4_4^-}{4_4^+} \right) & 2_r & 2_s \\ & & \frac{4^-}{4^+} & n_{2,s} & n_{2,r} \end{array} \right\}$$

38 $pma(a)$ (2 families)

38.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & a & (a) \\ 2_{r+1}/n_{s,2} & 2_s/n_{2,r} & (2_2/n_{r,s}) & \end{array} \right\}$$

38.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & m & a & (a) & 1 & 1 \\ - & - & \left(\frac{4_4^-}{4_4^+} \right) & 2_r & 2_{s+\frac{1}{2}} \\ & & \frac{4^-}{4^+} & n_{2,s} & n_{2,r-\frac{1}{2}} \end{array} \right\}$$

39 $pba(n)$ (2 families)

39.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & b & a & (n) \\ 2_{r+1}/n_{s,2} & 2_{s+1}/n_{2,r} & (2_2/n_{r,s}) & \end{array} \right\}$$

39.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & b & a & (n) \\ - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & \begin{array}{cc} 1 & 1 \\ 2_r & 2_s \\ n_{2,s} & n_{2,r-1} \end{array} \end{array} \right\}$$

40 $pma(m)$ (2 families)

40.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & a & (m) \\ 2_{r+1}/n_{s,2} & 2_s/n_{2,r+1} & (2_2/n_{r,s}) & \end{array} \right\}$$

40.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & a & (m) \\ - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & \begin{array}{cc} 1 & 1 \\ 2_r & 2_s \\ n_{2,s} & n_{2,r} \end{array} \end{array} \right\}$$

41 $pmm(a)$ (2 families)

41.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & m & (a) \\ 2_r/n_{s,2} & 2_s/n_{2,r+1} & (2_2/n_{r,s}) & \end{array} \right\}$$

41.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & m & (a) \\ - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & \begin{array}{cc} 1 & 1 \\ 2_r & 2_{s-\frac{1}{2}} \\ n_{2,s} & n_{2,r+\frac{1}{2}} \end{array} \end{array} \right\}$$

42 $pma(n)$ (2 families)

42.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & m & a \\ 2_{r+1}/n_{s+1,2} & 2_s/n_{2,r} & (2_2/n_{r,s}) \end{array} \begin{array}{c} (n) \end{array} \right\}$$

42.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & m & a \\ - & - & \begin{pmatrix} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{pmatrix} \end{array} \begin{array}{cc} (n) & 1 & 1 \\ 2_r & 2_{s+1} \\ n_{2,s} & n_{2,r} \end{array} \right\}$$

43 $pba(a)$ (2 families)

43.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & a \\ 2_{r+1}/n_{s+1,2} & 2_{s+1}/n_{2,r} & (2_2/n_{r,s}) \end{array} \begin{array}{c} (a) \end{array} \right\}$$

43.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & a \\ - & - & \begin{pmatrix} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{pmatrix} \end{array} \begin{array}{cc} (a) & 1 & 1 \\ 2_r & 2_{s+\frac{1}{2}} \\ n_{2,s} & n_{2,r-\frac{1}{2}} \end{array} \right\}$$

44 $pba(m)$ (2 families)

44.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & a \\ 2_{r+1}/n_{s+1,2} & 2_{s+1}/n_{2,r+1} & (2_2/n_{r,s}) \end{array} \begin{array}{c} (m) \end{array} \right\}$$

44.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & a \\ - & - & \begin{pmatrix} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{pmatrix} \end{array} \begin{array}{cc} (m) & 1 & 1 \\ 2_r & 2_s \\ n_{2,s} & n_{2,r} \end{array} \right\}$$

45 $pbm(a)$ (2 families)

45.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & m \\ 2_r/n_{s+1,2} & 2_{s+1}/n_{2,r+1} & (2_2/n_{r,s}) \end{array} \right\} \quad (a)$$

45.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & m \\ - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ 4^- \\ 4^+ \end{array} \right) \end{array} \right\} \quad \begin{array}{cc} 1 & 1 \\ 2_r & 2_{s-\frac{1}{2}} \\ n_{2,s} & n_{2,r+\frac{1}{2}} \end{array}$$

46 $pmm(n)$ (2 families)

46.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & m & m \\ 2_r/n_{s+1,2} & 2_s/n_{2,r+1} & (2_2/n_{r,s}) \end{array} \right\} \quad (n)$$

46.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & m & m \\ - & - & \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ 4^- \\ 4^+ \end{array} \right) \end{array} \right\} \quad \begin{array}{cc} 1 & 1 \\ 2_r & 2_s \\ n_{2,s} & n_{2,r+1} \end{array}$$

47 $cmm(m)$ (3 families)

47.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & m & m \\ 2_r & 2_s & \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \\ n_{s,2} & n_{2,r} & \\ 2_{r+1} & 2_{s+1} & \\ n_{s+1,2} & n_{2,r+1} & \end{array} \right\} \quad (m)$$

47.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & 2_s & 2_r \\ & n_{r,2} & n_{2,s} \end{array} \begin{array}{c} (m) \\ \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \begin{array}{cc} m & m \\ - & - \end{array} \right\}$$

47.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & m & 1 & 1 \\ & - & 2_r & - \\ & & n_{2,s} & - \end{array} \begin{array}{c} (m) \\ \left(\begin{array}{c} 3_3^- \\ \overline{3}^- \\ 6_6^+ \\ \overline{6}^+ \end{array} \right) \end{array} \begin{array}{ccc} m & 1 & 1 \\ - & 2_s & - \\ & n_{2,r} & - \end{array} \right\}$$

48 $cmm(e)$ (3 families)

48.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} c & m & m \\ & 2_r & 2_s \\ & n_{s,2} & n_{2,r+1} \\ & 2_{r+1} & 2_{s+1} \\ & n_{s+1,2} & n_{2,r+2} \end{array} \begin{array}{c} (e) \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ n_{r+1,s+1} \end{array} \right) \end{array} \right\}$$

48.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & 2_s & 2_{r-1} \\ & n_{r,2} & n_{2,s+1} \end{array} \begin{array}{c} (e) \\ \left(\begin{array}{c} 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} \begin{array}{cc} m & m \\ - & - \end{array} \right\}$$

48.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & m & 1 & 1 \\ & - & 2_r & - \\ & & n_{2,s} & - \end{array} \begin{array}{c} (e) \\ \left(\begin{array}{c} 3_3^- \\ \overline{3}^- \\ 6_6^+ \\ \overline{6}^+ \end{array} \right) \end{array} \begin{array}{ccc} m & 1 & 1 \\ - & 2_{s-\frac{1}{2}} & - \\ & n_{2,r-\frac{1}{2}} & - \end{array} \right\}$$

49 $p(4)11$ (5 families)

49.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & - & - \\ & [r, & s] \end{array} \begin{array}{c} (4) \\ 2_2 \\ 4_4^- \\ 4_4^+ \end{array} \begin{array}{cc} 1 & 1 \\ - & - \end{array} \right\}$$

49.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ n_{r,2} & n_{2,s} & (-) \end{array} \begin{array}{c} (4) \\ (-) \end{array} \begin{array}{cc} 1 & 1 \\ n_{2,-\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

49.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ 2_s & 2_r & (-) \end{array} \begin{array}{c} (4) \\ (-) \end{array} \begin{array}{cc} 1 & 1 \\ 2_{\frac{r}{2}+\frac{s}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ 2_{s'} & 2_{r'} & (-) \end{array} \begin{array}{c} (4) \\ (-) \end{array} \begin{array}{cc} 1 & 1 \\ 2_{\frac{r'}{2}+\frac{s'}{2}} & 2_{-\frac{r'}{2}+\frac{s'}{2}} \end{array} \right\}$$

49.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ \bar{1} & \bar{1} & \left(\begin{array}{c} n_{r,s} \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \\ \{ & 2_{s'} & 2_{r'} \end{array} \begin{array}{c} (4) \\ (-) \end{array} \begin{array}{cc} 1 & 1 \\ \bar{1} & \bar{1} \\ 2_{\frac{r'}{2}+\frac{s'}{2}} & 2_{-\frac{r'}{2}+\frac{s'}{2}} \end{array} \right\}$$

49.5 OD groupoid family #5

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ \bar{1} & \bar{1} & \left(\begin{array}{c} n_{r,s} \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \\ \left\{ \begin{array}{ccc} p & 1 & 1 \\ \bar{1} & \bar{1} & \left(\begin{array}{c} n_{r',s'} \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \end{array} \right. \end{array} \begin{array}{c} (4) \\ (-) \end{array} \begin{array}{cc} 1 & 1 \\ \bar{1} & \bar{1} \\ \bar{1} & \bar{1} \end{array} \right\}$$

50 $p(\overline{4})11$ (4 families)

50.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & - & - \end{array} \begin{array}{c} (\overline{4}) \\ 2_2 \\ \overline{4}^- \\ \overline{4}^+ \end{array} \begin{array}{cc} 1 & 1 \\ - & - \end{array} \right\}$$

$[r, \quad s]$

50.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ 2_s & 2_r & (-) \end{array} \begin{array}{c} (\overline{4}) \\ n_{2,-\frac{r}{2}+\frac{s}{2}} \end{array} \begin{array}{cc} 1 & 1 \\ n_{2,\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

50.3 OD groupoid family #3

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ n_{r,2} & n_{2,s} & (-) \end{array} \begin{array}{c} (\overline{4}) \\ 2_{\frac{r}{2}+\frac{s}{2}} \end{array} \begin{array}{cc} 1 & 1 \\ 2_{-\frac{r}{2}+\frac{s}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

50.4 OD groupoid family #4

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \begin{array}{c} (\overline{4}) \\ n_{r,s} \\ \overline{4}_4^- \\ \overline{4}_4^+ \end{array} \begin{array}{cc} 1 & 1 \\ \overline{1} & \overline{1} \end{array} \right\}$$

51 $p(4/m)11$ (2 families)

51.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \begin{array}{c} (4/m) \\ 2_2 \\ n_{r,s} \\ \overline{4}_4^- \\ \overline{4}_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \begin{array}{cc} 1 & 1 \\ \overline{1} & \overline{1} \end{array} \right\}$$

51.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ 2_s/n_{r,2} & 2_r/n_{2,s} & (-) \end{array} \begin{array}{c} (4/m) \\ 2_{\frac{r}{2}+\frac{s}{2}}/n_{2,-\frac{r}{2}+\frac{s}{2}} \end{array} \begin{array}{cc} 1 & 1 \\ 2_{-\frac{r}{2}+\frac{s}{2}}/n_{2,\frac{r}{2}+\frac{s}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}}/n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

52 $p(4/n)11$ (2 families)

52.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 1 & 1 \\ & & (4/n) \\ & & 1 \quad 1 \\ \bar{1} & \bar{1} & \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 4_4^- \\ 4_4^+ \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \\ & & \bar{1} \quad \bar{1} \end{array} \right\}$$

52.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & (4/n) & 1 & 1 \\ 2_s/n_{r,2} & 2_{r+1}/n_{2,s-1} & (-) & 2_{\frac{r}{2}+\frac{s}{2}+\frac{1}{2}}/n_{2,-\frac{r}{2}+\frac{s}{2}-\frac{1}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}-\frac{1}{2}}/n_{2,\frac{r}{2}+\frac{s}{2}-\frac{1}{2}} \end{array} \right\}$$

53 $p(4)22$ (2 families)

53.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 2 & 2 \\ & & (4) \\ & & 2 \quad 2 \\ 2_s & 2_r & \left(\begin{array}{c} 2_2 \\ 4_4^- \\ 4_4^+ \end{array} \right) \\ & & 2_{\frac{r}{2}+\frac{s}{2}} \quad 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

53.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & 2 & 2 \\ & & (4) \\ & & 2 \quad 2 \\ n_{s,2} & n_{2,r} & \left(\begin{array}{c} n_{r,s} \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \\ & & n_{2,\frac{r}{2}-\frac{s}{2}} \quad n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

54 $p(4)2_12$ (2 families)

54.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & 2_1 & 2_1 \\ & & (4) \\ & & 2 \quad 2 \\ 2_s & 2_r & \left(\begin{array}{c} 2_2 \\ 4_4^- \\ 4_4^+ \end{array} \right) \\ & & 2_{\frac{r}{2}+\frac{s}{2}} \quad 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

54.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccc} p & 2_1 & 2_1 & (4) & 2 & 2 \\ & n_{s-1,2} & n_{2,r+1} & \left(\begin{array}{c} n_{r,s} \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & n_{2,\frac{r}{2}-\frac{s}{2}+1} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

55 $p(4)mm$ (2 families)

55.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccc} p & m & m & (4) & m & m \\ & n_{r,2} & n_{2,s} & \left(\begin{array}{c} 2_2 \\ \overline{4}_4^- \\ \overline{4}_4^+ \end{array} \right) & n_{2,-\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

55.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccc} p & m & m & (4) & m & m \\ & 2_r & 2_s & \left(\begin{array}{c} n_{r,s} \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \end{array} \right\}$$

$$\left\{ \begin{array}{ccccc} & 2_{r'} & 2_{s'} & \left(\begin{array}{c} n_{r',s'} \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{\frac{r'}{2}+\frac{s'}{2}} & 2_{\frac{r'}{2}-\frac{s'}{2}} \end{array} \right\}$$

56 $p(4)bm$ (2 families)

56.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccc} p & b & a & (4) & m & m \\ & n_{r,2} & n_{2,s} & \left(\begin{array}{c} 2_2 \\ \overline{4}_4^- \\ \overline{4}_4^+ \end{array} \right) & n_{2,-\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

56.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccc} p & b & a & (4) & m & m \\ & 2_{r+1} & 2_{s-1} & \left(\begin{array}{c} n_{r,s} \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}+1} \end{array} \right\}$$

$$\left\{ \begin{array}{ccccc} & 2_{r'+1} & 2_{s'-1} & \left(\begin{array}{c} n_{r',s'} \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & 2_{\frac{r'}{2}+\frac{s'}{2}} & 2_{\frac{r'}{2}-\frac{s'}{2}+1} \end{array} \right\}$$

57 $p(\overline{4})2m$ (2 families)

57.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccc} p & 2 & 2 & (\overline{4}) & m & m \\ & n_{s,2} & n_{2,r} & \left(\begin{array}{c} n_{r,s} \\ 4_4^- \\ 4_4^+ \end{array} \right) & 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \end{array} \right\}$$

57.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccc} p & 2 & 2 & (\overline{4}) & m & m \\ & 2_s & 2_r & \left(\begin{array}{c} 2_2 \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & n_{2,-\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

58 $p(\overline{4})2_1m$ (2 families)

58.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccc} p & 2_1 & 2_1 & (\overline{4}) & m & m \\ & n_{s+1,2} & n_{2,r-1} & \left(\begin{array}{c} n_{r,s} \\ 4_4^- \\ 4_4^+ \end{array} \right) & 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}-1} \end{array} \right\}$$

58.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccc} p & 2_1 & 2_1 & (\overline{4}) & m & m \\ & 2_s & 2_r & \left(\begin{array}{c} 2_2 \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) & n_{2,-\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

59 $p(\overline{4})m2$ (2 families)

59.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccc} p & m & m & (\overline{4}) & 2 & 2 \\ & 2_r & 2_s & \left(\begin{array}{c} n_{r,s} \\ 4_4^- \\ 4_4^+ \end{array} \right) & n_{2,\frac{r}{2}-\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

59.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & m & m \\ & n_{r,2} & n_{2,s} \end{array} \quad \begin{array}{c} (\bar{4}) \\ \left(\begin{array}{c} 2_2 \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \end{array} \quad \begin{array}{cc} 2 & 2 \\ 2_{\frac{r}{2}+\frac{s}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

60 $p(\bar{4})b2$ (2 families)

60.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & a \\ & 2_{r-1} & 2_{s+1} \end{array} \quad \begin{array}{c} (\bar{4}) \\ \left(\begin{array}{c} n_{r,s} \\ 4_4^- \\ 4_4^+ \end{array} \right) \end{array} \quad \begin{array}{cc} 2 & 2 \\ n_{2,\frac{r}{2}-\frac{s}{2}-1} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

60.2 OD groupoid family #2

$$\left\{ \begin{array}{ccc} p & b & a \\ & n_{r,2} & n_{2,s} \end{array} \quad \begin{array}{c} (\bar{4}) \\ \left(\begin{array}{c} 2_2 \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \end{array} \quad \begin{array}{cc} 2 & 2 \\ 2_{\frac{r}{2}+\frac{s}{2}} & 2_{-\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

61 $p(4/m)mm$ (1 families)

61.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & m & m \\ & 2_r & 2_s \\ & n_{s,2} & n_{2,r} \end{array} \quad \begin{array}{c} (4/m) \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 4_4^- \\ 4_4^+ \\ \bar{4}^- \\ \bar{4}^+ \end{array} \right) \end{array} \quad \begin{array}{cc} m & m \\ 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \\ n_{2,\frac{r}{2}-\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

62 $p(4/n)bm$ (1 families)

62.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & a \\ \left(\begin{array}{cc} 2_{r+1} & 2_{s+1} \\ n_{s,2} & n_{2,r} \end{array} \right) & \begin{array}{c} (4/n) \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} & \begin{array}{cc} m & m \\ \begin{array}{cc} 2_{\frac{r}{2}+\frac{s}{2}+1} & 2_{\frac{r}{2}-\frac{s}{2}} \\ n_{2,\frac{r}{2}-\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \end{array} \end{array} \right\}$$

63 $p(4/m)bm$ (1 families)

63.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & b & a \\ \left(\begin{array}{cc} 2_{r+1} & 2_{s-1} \\ n_{s-1,2} & n_{2,r+1} \end{array} \right) & \begin{array}{c} (4/m) \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} & \begin{array}{cc} m & m \\ \begin{array}{cc} 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}+1} \\ n_{2,\frac{r}{2}-\frac{s}{2}+1} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \end{array} \end{array} \right\}$$

64 $p(4/n)mm$ (1 families)

64.1 OD groupoid family #1

$$\left\{ \begin{array}{ccc} p & m & m \\ \left(\begin{array}{cc} 2_r & 2_s \\ n_{s+1,2} & n_{2,r+1} \end{array} \right) & \begin{array}{c} (4/n) \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 4_4^- \\ 4_4^+ \\ \overline{4}^- \\ \overline{4}^+ \end{array} \right) \end{array} & \begin{array}{cc} m & m \\ \begin{array}{cc} 2_{\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \\ n_{2,\frac{r}{2}-\frac{s}{2}} & n_{2,\frac{r}{2}+\frac{s}{2}+1} \end{array} \end{array} \end{array} \right\}$$

65 $p(3)11$ (14 families)

65.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ - & - & - & (-) & n_{2,r} & n_{2,s} & n_{2,r+s} \end{array} \right\}$$

65.2 OD groupoid family #2

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \{ & n_{r,2} & n_{2,s} & n_{2,-r+s} & (-) & - & - & - \} \end{array}$$

65.3 OD groupoid family #3

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}^- \\ 3^+ \end{array} \right) & - & - & - \end{array} \right\} \\ [r, \quad s] \end{array}$$

65.4 OD groupoid family #4

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \{ & - & - & - & (-) & 2_r & 2_s & 2_{-r+s} \} \\ \{ & - & - & - & (-) & 2_{r'} & 2_{s'} & 2_{-r'+s'} \} \end{array}$$

65.5 OD groupoid family #5

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \{ & 2_r & 2_s & 2_{r+s} & (-) & - & - & - \} \\ \{ & 2_{r'} & 2_{s'} & 2_{r'+s'} & (-) & - & - & - \} \end{array}$$

65.6 OD groupoid family #6

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} \bar{1} & \bar{1} & \bar{1} & \left(\begin{array}{c} \overline{3}^- \\ \bar{3}^+ \end{array} \right) & \bar{1} & \bar{1} & \bar{1} \end{array} \right\} \\ [r, \quad s] \\ \{ & - & - & - & (-) & 2_{r'} & 2_{s'} & 2_{-r'+s'} \} \end{array}$$

65.7 OD groupoid family #7

$$\begin{array}{ccccccccc} p & 1 & 1 & 1 & (3) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} \bar{1} & \bar{1} & \bar{1} & \left(\begin{array}{c} \overline{3}^- \\ \bar{3}^+ \end{array} \right) & \bar{1} & \bar{1} & \bar{1} \end{array} \right\} \\ [r, \quad s] \\ \{ & 2_{r'} & 2_{s'} & 2_{r'+s'} & (-) & - & - & - \} \end{array}$$

65.8 OD groupoid family #8

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} \bar{1} \quad \bar{1} \quad \bar{1} \quad \left(\begin{array}{c} \bar{3}^- \\ \bar{3}^+ \end{array} \right) \quad \bar{1} \quad \bar{1} \quad \bar{1} \end{array} \right\} \\ [r, \quad s] \\ \left\{ \begin{array}{c} \bar{1} \quad \bar{1} \quad \bar{1} \quad \left(\begin{array}{c} \bar{3}^- \\ \bar{3}^+ \end{array} \right) \quad \bar{1} \quad \bar{1} \quad \bar{1} \end{array} \right\} \\ [r', \quad s'] \end{array}$$

65.9 OD groupoid family #9

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\begin{array}{c} 2_2 \\ \bar{6}_6^- \\ \bar{6}_6^+ \end{array} \right) \quad - \quad - \quad - \end{array} \right\} \\ [r, \quad s] \end{array}$$

65.10 OD groupoid family #10

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} 2_r \quad 2_s \quad 2_{r+s} \quad (-) \quad - \quad - \quad - \end{array} \right\} \\ \left\{ \begin{array}{c} - \quad - \quad - \quad (-) \quad 2_{r'} \quad 2_{s'} \quad 2_{-r'+s'} \end{array} \right\} \end{array}$$

65.11 OD groupoid family #11

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\begin{array}{c} n_{r,s} \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \quad - \quad - \quad - \end{array} \right\} \\ \left\{ \begin{array}{c} - \quad - \quad - \quad (-) \quad 2_{r'} \quad 2_{s'} \quad 2_{-r'+s'} \end{array} \right\} \end{array}$$

65.12 OD groupoid family #12

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\begin{array}{c} n_{r,s} \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \quad - \quad - \quad - \end{array} \right\} \\ \left\{ \begin{array}{c} 2_{r'} \quad 2_{s'} \quad 2_{r'+s'} \quad (-) \quad - \quad - \quad - \end{array} \right\} \end{array}$$

65.13 OD groupoid family #13

$$\begin{array}{c} p \quad (3) \quad 1 \quad 1 \\ \left\{ \begin{array}{c} \left(\begin{array}{c} n_{r,s} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) \quad - \quad - \end{array} \right\} \\ \left\{ \begin{array}{c} \left(\begin{array}{c} n_{r',s'} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) \quad - \quad - \end{array} \right\} \end{array}$$

65.14 OD groupoid family #14

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (3) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} \overline{1} \quad \overline{1} \quad \overline{1} \quad \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) \quad \overline{1} \quad \overline{1} \quad \overline{1} \end{array} \right\} \\ [r, \quad s] \\ \left\{ \begin{array}{c} - \quad - \quad - \quad \left(\begin{array}{c} n_{r',s'} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) \quad - \quad - \quad - \end{array} \right\} \end{array}$$

66 $p(\overline{3})11$ (4 families)

66.1 OD groupoid family #1

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (\overline{3}) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} - \quad - \quad - \quad (-) \quad 2_r/n_{2,s} \quad 2_{\frac{r}{2}+\frac{s}{2}}/n_{2,\frac{3r}{2}-\frac{s}{2}} \quad 2_{-\frac{r}{2}+\frac{s}{2}}/n_{2,\frac{3r}{2}+\frac{s}{2}} \end{array} \right\} \end{array}$$

66.2 OD groupoid family #2

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (\overline{3}) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} 2_r/n_{s,2} \quad 2_{-\frac{r}{2}+\frac{3s}{2}}/n_{2,\frac{r}{2}+\frac{s}{2}} \quad 2_{\frac{r}{2}+\frac{3s}{2}}/n_{2,\frac{r}{2}-\frac{s}{2}} \quad (-) \quad - \quad - \quad - \end{array} \right\} \end{array}$$

66.3 OD groupoid family #3

$$\begin{array}{c} p \quad 1 \quad 1 \quad 1 \quad (\overline{3}) \quad 1 \quad 1 \quad 1 \\ \left\{ \begin{array}{c} \overline{1} \quad \overline{1} \quad \overline{1} \quad \left(\begin{array}{c} \overline{3}_3^- \\ \overline{3}_3^+ \\ \overline{3}^- \\ \overline{3}^+ \end{array} \right) \quad \overline{1} \quad \overline{1} \quad \overline{1} \end{array} \right\} \\ [r, \quad s] \end{array}$$

66.4 OD groupoid family #4

$$\left\{ \begin{array}{c} p \\ \left(\begin{array}{c} \bar{3} \\ 2_2 \\ n_{r,s} \\ 6_6^- \\ 6_6^+ \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \end{array} \begin{array}{cc} 1 & 1 \\ - & - \end{array} \right\}$$

67 $p(3)12$ (4 families)

67.1 OD groupoid family #1

$$\left\{ \begin{array}{c} p \\ - \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ - & - & - \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} 3_3^- \\ 3_3^+ \end{array} \right) \end{array} \begin{array}{ccc} 2 & 2 & 2 \\ 2_r & 2_s & 2_{-r+s} \end{array} \right\}$$

67.2 OD groupoid family #2

$$\left\{ \begin{array}{c} p \\ \bar{1} \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ \bar{1} & \bar{1} & \bar{1} \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} \bar{3}^- \\ \bar{3}^+ \end{array} \right) \end{array} \begin{array}{ccc} 2 & 2 & 2 \\ n_{2,r} & n_{2,s} & n_{2,r+s} \end{array} \right\}$$

67.3 OD groupoid family #3

$$\left\{ \begin{array}{c} p \\ 2_r \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ 2_s & 2_{r+s} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} 2_2 \\ 6_6^- \\ 6_6^+ \end{array} \right) \end{array} \begin{array}{ccc} 2 & 2 & 2 \\ - & - & - \end{array} \right\}$$

67.4 OD groupoid family #4

$$\left\{ \begin{array}{c} p \\ n_{\frac{s}{2},2} \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ n_{2,\frac{r}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} n_{r,s} \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \end{array} \begin{array}{ccc} 2 & 2 & 2 \\ - & - & - \end{array} \right\}$$

68 $p(3)21$ (4 families)

68.1 OD groupoid family #1

$$\left\{ \begin{array}{c} p \\ 2_r \end{array} \begin{array}{ccc} 2 & 2 & 2 \\ 2_s & 2_{r+s} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} 3_3^- \\ 3_3^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ - & - & - \end{array} \right\}$$

68.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & 2 & 2 & 2 \\ n_{r,2} & n_{2,s} & n_{2,-r+s} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \right\}$$

68.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & 2 & 2 & 2 \\ - & - & - & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} 2_2 \\ 6_6^- \\ 6_6^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ 2_r & 2_s & 2_{-r+s} \end{array} \right\}$$

68.4 OD groupoid family #4

$$\left\{ \begin{array}{cccc} p & 2 & 2 & 2 \\ - & - & - & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} n_{r,s} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ n_{2,r-\frac{s}{2}} & n_{2,-\frac{r}{2}+s} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

69 $p(3)m1$ (5 families)

69.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & m & m \\ n_{r,2} & n_{2,s} & n_{2,-r+s} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} \overline{3}_3^- \\ \overline{3}_3^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ - & - & - \end{array} \right\}$$

69.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & m & m \\ 2_r & 2_s & 2_{r+s} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \right\}$$

$$\left\{ \begin{array}{cccc} p & m & m & m \\ 2_{r'} & 2_{s'} & 2_{r'+s'} & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \right\}$$

69.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & m & m & m \\ - & - & - & \end{array} \begin{array}{c} (3) \\ \left(\begin{array}{c} 2_2 \\ 6_6^- \\ 6_6^+ \end{array} \right) \end{array} \begin{array}{ccc} 1 & 1 & 1 \\ n_{2,r} & n_{2,s} & n_{2,r+s} \end{array} \right\}$$

69.4 OD groupoid family #4

$$\begin{array}{ccccccc} p & m & m & m & (3) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} n_{r,s} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) & 2_{\frac{s}{2}} & 2_{\frac{r}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \end{array} \right\} \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} n_{r',s'} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) & 2_{\frac{s'}{2}} & 2_{\frac{r'}{2}} & 2_{\frac{r'}{2}-\frac{s'}{2}} \end{array} \right\} \end{array}$$

69.5 OD groupoid family #5

$$\begin{array}{ccccccc} p & m & m & m & (3) & 1 & 1 & 1 \\ \left\{ \begin{array}{cccc} 2_r & 2_s & 2_{r+s} & \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) & \overline{1} & \overline{1} & \overline{1} \end{array} \right\} \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} n_{r',s'} \\ \overline{6}^- \\ \overline{6}^+ \end{array} \right) & 2_{\frac{s'}{2}} & 2_{\frac{r'}{2}} & 2_{\frac{r'}{2}-\frac{s'}{2}} \end{array} \right\} \end{array}$$

70 $p(3)1m$ (5 families)

70.1 OD groupoid family #1

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (3) & m & m & m \\ \left\{ \begin{array}{cccc} - & - & - & \left(\begin{array}{c} \overline{3}_3^- \\ \overline{3}_3^+ \end{array} \right) & n_{2,r} & n_{2,s} & n_{2,r+s} \end{array} \right\} \end{array}$$

70.2 OD groupoid family #2

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (3) & m & m & m \\ \left\{ \begin{array}{cccc} \overline{1} & \overline{1} & \overline{1} & \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) & 2_r & 2_s & 2_{-r+s} \end{array} \right\} \\ \left\{ \begin{array}{cccc} \overline{1} & \overline{1} & \overline{1} & \left(\begin{array}{c} \overline{3}^- \\ \overline{3}^+ \end{array} \right) & 2_{r'} & 2_{s'} & 2_{-r'+s'} \end{array} \right\} \end{array}$$

70.3 OD groupoid family #3

$$\begin{array}{ccccccc} p & 1 & 1 & 1 & (3) & m & m & m \\ \left\{ \begin{array}{cccc} n_{r,2} & n_{2,s} & n_{2,-r+s} & \left(\begin{array}{c} 2_2 \\ \overline{6}_6^- \\ \overline{6}_6^+ \end{array} \right) & - & - & - \end{array} \right\} \end{array}$$

70.4 OD groupoid family #4

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (3) & m & m & m \\
 \left\{ \begin{array}{ccc} 2_{r-\frac{s}{2}} & 2_{-\frac{r}{2}+s} & 2_{\frac{r}{2}+\frac{s}{2}} \end{array} \right. & \left(\begin{array}{c} n_{r,s} \\ \overline{6^-} \\ \overline{6^+} \end{array} \right) & - & - & - \\
 \left\{ \begin{array}{ccc} 2_{r'-\frac{s'}{2}} & 2_{-\frac{r'}{2}+s'} & 2_{\frac{r'}{2}+\frac{s'}{2}} \end{array} \right. & \left(\begin{array}{c} n_{r',s'} \\ \overline{6^-} \\ \overline{6^+} \end{array} \right) & - & - & -
 \end{array}$$

70.5 OD groupoid family #5

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (3) & m & m & m \\
 \left\{ \begin{array}{ccc} \overline{1} & \overline{1} & \overline{1} \end{array} \right. & \left(\begin{array}{c} \overline{3^-} \\ \overline{3^+} \end{array} \right) & 2_r & 2_s & 2_{-r+s} \\
 \left\{ \begin{array}{ccc} 2_{r'-\frac{s'}{2}} & 2_{-\frac{r'}{2}+s'} & 2_{\frac{r'}{2}+\frac{s'}{2}} \end{array} \right. & \left(\begin{array}{c} n_{r',s'} \\ \overline{6^-} \\ \overline{6^+} \end{array} \right) & - & - & -
 \end{array}$$

71 $p(\overline{3})1m$ (2 families)

71.1 OD groupoid family #1

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (\overline{3}) & m & m & m \\
 \left\{ \begin{array}{ccc} \overline{1} & \overline{1} & \overline{1} \end{array} \right. & \left(\begin{array}{c} \overline{3_3^-} \\ \overline{3_3^+} \\ \overline{3^-} \\ \overline{3^+} \end{array} \right) & \begin{array}{c} 2_r \\ n_{2,s} \end{array} & \begin{array}{c} 2_{\frac{r}{2}+\frac{s}{2}} \\ n_{2,\frac{3r}{2}-\frac{s}{2}} \end{array} & \begin{array}{c} 2_{-\frac{r}{2}+\frac{s}{2}} \\ n_{2,\frac{3r}{2}+\frac{s}{2}} \end{array}
 \end{array}$$

71.2 OD groupoid family #2

$$\begin{array}{ccccccc}
 p & 1 & 1 & 1 & (\overline{3}) & m & m & m \\
 \left\{ \begin{array}{ccc} 2_{r-\frac{s}{2}} & 2_{-\frac{r}{2}+s} & 2_{\frac{r}{2}+\frac{s}{2}} \\ n_{\frac{s}{2},2} & n_{2,\frac{r}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} \end{array} \right. & \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ \overline{6_6^-} \\ \overline{6_6^+} \\ \overline{6^-} \\ \overline{6^+} \end{array} \right) & - & - & -
 \end{array}$$

72 $p(\overline{3})m1$ (2 families)

72.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & m & m \\ \begin{array}{ccc} 2_r & 2_{-\frac{r}{2}+\frac{3s}{2}} & 2_{\frac{r}{2}+\frac{3s}{2}} \\ n_{s,2} & n_{2,\frac{r}{2}+\frac{s}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} \end{array} & \begin{pmatrix} \overline{3} \\ 3_3^- \\ 3_3^+ \\ \overline{3}^- \\ \overline{3}^+ \end{pmatrix} & \begin{array}{ccc} 1 & 1 & 1 \\ \overline{1} & \overline{1} & \overline{1} \end{array} \end{array} \right\}$$

72.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & m & m \\ \begin{array}{ccc} - & - & - \end{array} & \begin{pmatrix} \overline{3} \\ 2_2 \\ n_{r,s} \\ 6_6^- \\ 6_6^+ \\ \overline{6}^- \\ \overline{6}^+ \end{pmatrix} & \begin{array}{ccc} 1 & 1 & 1 \\ 2_{\frac{s}{2}} & 2_{\frac{r}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \\ n_{2,r-\frac{s}{2}} & n_{2,-\frac{r}{2}+s} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \end{array} \right\}$$

73 $p(6)11$ (5 families)

73.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & 1 & 1 & 1 \\ \begin{array}{ccc} - & - & - \end{array} & \begin{pmatrix} (6) \\ 2_2 \\ 3_3^- \\ 3_3^+ \\ 6_6^- \\ 6_6^+ \end{pmatrix} & \begin{array}{ccc} 1 & 1 & 1 \\ - & - & - \end{array} \end{array} \right\}$$

$[r, \quad s]$

73.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & 1 & 1 & 1 \\ n_{r,2} & n_{2,s} & n_{2,-r+s} & (-) \end{array} \begin{pmatrix} (6) \\ (-) \end{pmatrix} \begin{array}{ccc} 1 & 1 & 1 \\ n_{2,-r+2s} & n_{2,2r-s} & n_{2,r+s} \end{array} \right\}$$

73.3 OD groupoid family #3

$$\left\{ \begin{array}{cccc} p & 1 & 1 & 1 \\ 2_r & 2_s & 2_{r+s} & (-) \end{array} \begin{pmatrix} (6) \\ (-) \end{pmatrix} \begin{array}{ccc} 1 & 1 & 1 \\ 2_{\frac{r}{3}+\frac{2s}{3}} & 2_{\frac{2r}{3}+\frac{s}{3}} & 2_{\frac{r}{3}-\frac{s}{3}} \end{array} \right\}$$

$$\left\{ \begin{array}{cccc} p & 1 & 1 & 1 \\ 2_{r'} & 2_{s'} & 2_{r'+s'} & (-) \end{array} \begin{pmatrix} (6) \\ (-) \end{pmatrix} \begin{array}{ccc} 1 & 1 & 1 \\ 2_{\frac{r'}{3}+\frac{2s'}{3}} & 2_{\frac{2r'}{3}+\frac{s'}{3}} & 2_{\frac{r'}{3}-\frac{s'}{3}} \end{array} \right\}$$

73.4 OD groupoid family #4

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (6) & 1 & 1 & 1 \\ \bar{1} & \bar{1} & \bar{1} & \begin{pmatrix} n_{r,s} \\ \bar{3}^- \\ \bar{3}^+ \\ \bar{6}^- \\ \bar{6}^+ \end{pmatrix} & \bar{1} & \bar{1} & \bar{1} \\ \{ & 2_{r'} & 2_{s'} & 2_{r'+s'} & (-) & 2_{\frac{r'}{3}+\frac{2s'}{3}} & 2_{\frac{2r'}{3}+\frac{s'}{3}} & 2_{\frac{r'}{3}-\frac{s'}{3}} \end{array} \right\}$$

73.5 OD groupoid family #5

$$\left\{ \begin{array}{cc} p & (6) & 1 & 1 \\ \begin{pmatrix} n_{r,s} \\ \bar{3}^- \\ \bar{3}^+ \\ \bar{6}^- \\ \bar{6}^+ \end{pmatrix} & \bar{1} & \bar{1} \end{array} \right\}$$

$$\left\{ \begin{array}{cc} \begin{pmatrix} n_{r',s'} \\ \bar{3}^- \\ \bar{3}^+ \\ \bar{6}^- \\ \bar{6}^+ \end{pmatrix} & \bar{1} & \bar{1} \end{array} \right\}$$

74 $p(\bar{6})11$ (4 families)

74.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (\bar{6}) & 1 & 1 & 1 \\ \bar{1} & \bar{1} & \bar{1} & \begin{pmatrix} 2_2 \\ \bar{3}^- \\ \bar{3}^+ \\ 6_6^- \\ 6_6^+ \end{pmatrix} & \bar{1} & \bar{1} & \bar{1} \\ [r, & s] \end{array} \right\}$$

74.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (\bar{6}) & 1 & 1 & 1 \\ \{ & 2_r & 2_s & 2_{r+s} & (-) & n_{2,r} & n_{2,s} & n_{2,r+s} \end{array} \right\}$$

74.3 OD groupoid family #3

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (\bar{6}) & 1 & 1 & 1 \\ \{ & n_{r,2} & n_{2,s} & n_{2,-r+s} & (-) & 2_r & 2_s & 2_{-r+s} \end{array} \right\}$$

74.4 OD groupoid family #4

$$\left\{ \begin{array}{c} p \quad (\bar{6}) \quad 1 \quad 1 \\ \left(\begin{array}{c} n_{r,s} \\ 3_3^- \\ 3_3^+ \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \quad - \quad - \end{array} \right\}$$

75 $p(6/m)11$ (2 families)

75.1 OD groupoid family #1

$$\left\{ \begin{array}{c} p \quad (6/m) \quad 1 \quad 1 \\ \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ 3_3^- \\ 3_3^+ \\ \bar{3}^- \\ \bar{3}^+ \\ 6_6^- \\ 6_6^+ \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \quad \bar{1} \quad \bar{1} \end{array} \right\}$$

75.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & 1 & 1 & 1 & (6/m) & 1 & 1 & 1 \\ 2_r/n_{s,2} & 2_{-\frac{r}{2}+\frac{3s}{2}}/n_{2,\frac{r}{2}+\frac{s}{2}} & 2_{\frac{r}{2}+\frac{3s}{2}}/n_{2,\frac{r}{2}-\frac{s}{2}} & (-) & 2_s/n_{2,r} & 2_{\frac{r}{2}+\frac{s}{2}}/n_{2,-\frac{r}{2}+\frac{3s}{2}} & 2_{\frac{r}{2}-\frac{s}{2}}/n_{2,\frac{r}{2}+\frac{3s}{2}} \end{array} \right\}$$

76 $p(6)22$ (2 families)

76.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} p & 2 & 2 & 2 & (6) & 2 & 2 & 2 \\ 2_r & 2_s & 2_{r+s} & \left(\begin{array}{c} 2_2 \\ 3_3^- \\ 3_3^+ \\ 6_6^- \\ 6_6^+ \end{array} \right) & 2_{\frac{r}{3}+\frac{2s}{3}} & 2_{\frac{2r}{3}+\frac{s}{3}} & 2_{\frac{r}{3}-\frac{s}{3}} \end{array} \right\}$$

76.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & 2 & 2 & 2 & (6) & 2 & 2 & 2 \\ \left(\begin{array}{ccc} n_{\frac{s}{2},2} & n_{2,\frac{r}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} \\ \frac{n_{r,s}}{3^-} & \frac{3^+}{3^-} & \frac{6^-}{6^+} \end{array} \right) & n_{2,r-\frac{s}{2}} & n_{2,-\frac{r}{2}+s} & n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

77 $p(6)mm$ (2 families)

77.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} p & m & m & m & (6) & m & m & m \\ \left(\begin{array}{ccc} n_{r,2} & n_{2,s} & n_{2,-r+s} \\ 2_2 & 3_3^- & 3_3^+ \\ 6_6^- & 6_6^+ \end{array} \right) & n_{2,-r+2s} & n_{2,2r-s} & n_{2,r+s} \end{array} \right\}$$

77.2 OD groupoid family #2

$$\left\{ \begin{array}{ccccccc} p & m & m & m & (6) & m & m & m \\ \left(\begin{array}{ccc} 2_{r-\frac{s}{2}} & 2_{-\frac{r}{2}+s} & 2_{\frac{r}{2}+\frac{s}{2}} \\ \frac{n_{r,s}}{3^-} & \frac{3^+}{3^-} & \frac{6^-}{6^+} \end{array} \right) & 2_{\frac{s}{2}} & 2_{\frac{r}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \end{array} \right\}$$

$$\left\{ \begin{array}{ccccccc} p & m & m & m & (6) & m & m & m \\ \left(\begin{array}{ccc} 2_{r'-\frac{s'}{2}} & 2_{-\frac{r'}{2}+s'} & 2_{\frac{r'}{2}+\frac{s'}{2}} \\ \frac{n_{r',s'}}{3^-} & \frac{3^+}{3^-} & \frac{6^-}{6^+} \end{array} \right) & 2_{\frac{s'}{2}} & 2_{\frac{r'}{2}} & 2_{\frac{r'}{2}-\frac{s'}{2}} \end{array} \right\}$$

78 $p(\bar{6})m2$ (2 families)

78.1 OD groupoid family #1

$$\left\{ \begin{array}{ccccccc} p & m & m & m & (\bar{6}) & 2 & 2 & 2 \\ \left(\begin{array}{ccc} n_{\frac{s}{2},2} & n_{2,\frac{r}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} \\ \frac{n_{r,s}}{3_3^-} & \frac{3_3^+}{3_3^-} & \frac{6^-}{6^+} \end{array} \right) & 2_{\frac{s}{2}} & 2_{\frac{r}{2}} & 2_{\frac{r}{2}-\frac{s}{2}} \end{array} \right\}$$

78.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & m & m & m \\ & & & (\bar{6}) \\ & & & \left(\begin{array}{c} 2_2 \\ \bar{3}^- \\ \bar{3}^+ \\ 6_6^- \\ 6_6^+ \end{array} \right) \\ 2_r & 2_s & 2_{r+s} & \\ & & & n_{2,r} \quad n_{2,s} \quad n_{2,r+s} \end{array} \right\}$$

79 $p(\bar{6})2m$ (2 families)

79.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & 2 & 2 & 2 \\ & & & (\bar{6}) \\ & & & \left(\begin{array}{c} n_{r,s} \\ \bar{3}_3^- \\ \bar{3}_3^+ \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \\ 2_{r-\frac{s}{2}} & 2_{-\frac{r}{2}+s} & 2_{\frac{r}{2}+\frac{s}{2}} & \\ & & & n_{2,r-\frac{s}{2}} \quad n_{2,-\frac{r}{2}+s} \quad n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$

79.2 OD groupoid family #2

$$\left\{ \begin{array}{cccc} p & 2 & 2 & 2 \\ & & & (\bar{6}) \\ & & & \left(\begin{array}{c} 2_2 \\ \bar{3}^- \\ \bar{3}^+ \\ 6_6^- \\ 6_6^+ \end{array} \right) \\ n_{r,2} & n_{2,s} & n_{2,-r+s} & \\ & & & 2_r \quad 2_s \quad 2_{-r+s} \end{array} \right\}$$

80 $p(6/m)mm$ (1 families)

80.1 OD groupoid family #1

$$\left\{ \begin{array}{cccc} p & m & m & m \\ & & & (6/m) \\ & & & \left(\begin{array}{c} 2_2 \\ n_{r,s} \\ \bar{3}_3^- \\ \bar{3}_3^+ \\ \bar{3}^- \\ \bar{3}^+ \\ 6_6^- \\ 6_6^+ \\ \bar{6}^- \\ \bar{6}^+ \end{array} \right) \\ 2_{r-\frac{s}{2}} & 2_{-\frac{r}{2}+s} & 2_{\frac{r}{2}+\frac{s}{2}} & \\ n_{\frac{s}{2},2} & n_{2,\frac{r}{2}} & n_{2,\frac{r}{2}-\frac{s}{2}} & \\ & & & 2_{\frac{s}{2}} \quad 2_{\frac{r}{2}} \quad 2_{\frac{r}{2}-\frac{s}{2}} \\ & & & n_{2,r-\frac{s}{2}} \quad n_{2,-\frac{r}{2}+s} \quad n_{2,\frac{r}{2}+\frac{s}{2}} \end{array} \right\}$$