付録 D:　SFG テンソル成分

別のファイルに詳しいことは記してある。ここでは、独立なノンゼロ成分の個数によって区分けした表を示しておく。

1 **個**

D_{3h}: $\beta_{xxx} = -\beta_{xyy} = -\beta_{yyx} = -\beta_{yxy}$

T_d: $\beta_{xxz} = \beta_{zxx} = \beta_{xzx} = -\beta_{yyz} = -\beta_{zyy} = -\beta_{yzy}$

O: $\beta_{xyz} = \beta_{xzy} = \beta_{zxy} = -\beta_{yxz} = -\beta_{yzx} = -\beta_{zyx}$

2 **個**

C_{3h}: $\beta_{xxx} = -\beta_{xyy} = -\beta_{yyx} = -\beta_{yxy}$; $\beta_{yyy} = -\beta_{yxx} = -\beta_{xxy} = -\beta_{xyx}$

T: $\beta_{xyz} = \beta_{xzy} = \beta_{zxy} = -\beta_{yxz} = -\beta_{yzx} = -\beta_{zyx}$; $\beta_{xxz} = \beta_{zxx} = \beta_{xzx} = -\beta_{yyz} = -\beta_{zyy} = -\beta_{yzy}$

3 **個**

D_{2d}: $\beta_{xxz} = -\beta_{yyz}$; $\beta_{zxx} = -\beta_{zyy}$; $\beta_{xzx} = -\beta_{yzy}$

D_4, D_6: $\beta_{xyz} = -\beta_{yxz}$; $\beta_{xzy} = -\beta_{yzx}$; $\beta_{zxy} = -\beta_{zyx}$

4 **個**

C_{4v}, C_{5v}, C_{6v}, ..$C_{\infty v}$: β_{zzz}; $\beta_{xxz} = \beta_{yyz}$; $\beta_{zxx} = \beta_{zyy}$; $\beta_{xzx} = \beta_{yzy}$

D_3: $\beta_{zzz} = -2\beta_{xxz} = -2\beta_{yyz} = -2\beta_{zxx} = -2\beta_{zyy} = -2\beta_{xzx} = -2\beta_{yzy}$; $\beta_{xyz} = -\beta_{yxz}$; $\beta_{xzy} = -\beta_{yzx}$; $\beta_{zxy} = -\beta_{zyx}$

5 **個**

C_{3v}: β_{zzz}; $\beta_{xxz} = \beta_{yyz}$; $\beta_{zxx} = \beta_{zyy}$; $\beta_{xzx} = \beta_{yzy}$; $\beta_{xxx} = -\beta_{xyy} = -\beta_{yyx} = -\beta_{yxy}$

6 **個**

D_2: β_{xyz}; β_{yzx}; β_{zxy}; β_{yxz}; β_{zyx}; β_{xzy};

S_4: $\beta_{xxz} = -\beta_{yyz}$; $\beta_{zxx} = -\beta_{zyy}$; $\beta_{xzx} = -\beta_{yzy}$; $\beta_{xyz} = \beta_{yxz}$; $\beta_{xzy} = \beta_{yzx}$; $\beta_{zxy} = \beta_{zyx}$

7 **個**

C_{2v}: β_{yyy}; β_{yxx}; β_{yzz}; β_{xxy}; β_{zzy}; β_{xyx}; β_{zyz}

C_4, C_6, … C_∞: β_{zzz}; $\beta_{xxz} = \beta_{yyz}$; $\beta_{zxx} = \beta_{zyy}$; $\beta_{xzx} = \beta_{yzy}$; $\beta_{xyz} = -\beta_{yxz}$; $\beta_{xzy} = -\beta_{yzx}$; $\beta_{zxy} = -\beta_{zyx}$

9 **個**

C_3: β_{zzz}; $\beta_{xxz} = \beta_{yyz}$; $\beta_{zxx} = \beta_{zyy}$; $\beta_{xzx} = \beta_{yzy}$; $\beta_{xyz} = -\beta_{yxz}$; $\beta_{xzy} = -\beta_{yzx}$; $\beta_{zxy} = -\beta_{zyx}$;
$\beta_{xxx} = -\beta_{xyy} = -\beta_{yyx} = -\beta_{yxy}$; $\beta_{yyy} = -\beta_{yxxy} = -\beta_{xxy} = -\beta_{xyx}$

13 **個**

C_2: β_{yyy}; β_{yxx}; β_{xxy}; β_{xyx}; β_{yzz}; β_{zzy}; β_{zyz}; β_{xyz}; β_{yxz}; β_{yxz}; β_{xzy}; β_{zxy}; β_{zyx}

14 **個**

C_s: β_{xxx}; β_{xyy}; β_{yyx}; β_{yxy}; β_{xzz}; β_{zzx}; β_{zxz}; β_{yyy}; β_{yxx}; β_{xxy}; β_{xyx}; β_{yzz}; β_{zzy}; β_{zyz}