length(
$$A'$$
)=25, length( $A''$ )=15

(a)  $A'_{5/10}A''_{5/10}$ TiO  $_3$  < $a>=(25×5+15×5)/10=20$ 
 $d_0$   $d_1$   $d_2$   $d_3$   $d_4$   $d_5$   $d_6$   $d_7$   $d_8$   $d_9$   $d_0$ 
0 +5 +10 +5 0 -5 0 +5 0 +5 total 25
-2.5 +2.5 +7.5 +2.5 -2.5 -7.5 -2.5 +2.5 -2.5 +2.5 total 0

(a)  $A'_{3/10}A''_{7/10}$ TiO  $_3$  < $a>=(25×3+15×7)/10=18$ 
 $d_0$   $d_1$   $d_2$   $d_3$   $d_4$   $d_5$   $d_6$   $d_7$   $d_8$   $d_9$   $d_0$ 
0 -3 +4 +1 +8 +5 +2 -1 +6 +3 total 24
-2.4 -5.4 +1.6 -1.4 +5.4 +2.6 -0.4 -3.4 +3.6 +0.6 total 0