

$$\sum_{s,t=1}^k (D^q)_{st} \leq \sum_{s,t=1}^k (A_1 \cdots A_c D^q D_1 \cdots D_i)_{st} \leq \beta_{n-1}^{(d-1)(c+i)} k^{c+i} \sum_{s,t=1}^k (D^q)_{st}.$$