

Seidel's switching is a graph operation which makes a given vertex adjacent to precisely those vertices to which it was non-adjacent before, while keeping the rest of the graph unchanged. Two graphs are called switching-equivalent if one can be made isomorphic to the other by a sequence of switches. In this thesis, we study the computational complexity the problem  $S(P)$  for a certain graph property  $P$ : given a graph  $G$ , determine if  $G$  is switching-equivalent to a graph having  $P$ . First, we give an overview of known results, including both properties  $P$  for which  $S(P)$  is polynomial, and those for which  $S(P)$  is NP-complete. Then we show the NP-completeness of the following problem for each  $c \in (0, 1)$ : determine if a graph  $G$  can be switched to contain a clique of size at least  $cn$ , where  $n$  is the number of vertices of  $G$ . We also study the problem if, for a fixed graph  $H$ , a given graph is switching-equivalent to an  $H$ -free graph. We show that for  $H$  isomorphic to a claw, the problem is polynomial. Further, we give a characterization of graphs switching-equivalent to a  $K_{1,2}$ -free graph by ten forbidden induced subgraphs, each having five vertices.