reaction path degeneracy

Also contains definition of: statistical factor

A factor that is introduced into rate theory to take account of the fact that the process may be able to occur in different but equivalent ways. Thus the process:

\[
\text{Cl} + \text{H}_2 \rightarrow \text{HCl} + \text{H}
\]

has a reaction path degeneracy of 2 since the chlorine atom can abstract either of the two hydrogen atoms in the hydrogen molecule. The reaction path degeneracy has also been referred to as the statistical factor for the reaction.

Source:
PAC, 1996, 68, 149 (A glossary of terms used in chemical kinetics, including reaction dynamics (IUPAC Recommendations 1996)) on page 184