

# 高级车关门声品质分析

## 摘 要

随着我国汽车行业发展的如火如荼，人们对汽车品质的要求也日益增高，声品质已经成为了人们选择购买汽车的重要因素，也成为了汽车噪声研究的重要内容之一。高级车车门关门的声品质如今被越来越多的消费者和研究学者所关注。针对高级车关门声声品质研究过程中遇到的问题，以市面上常见的 A,B,C 三款高级车为研究对象，对其关门声的声品质进行研究。

本文主要通过对高级车车门关门声的主客观因素进行分析和评价，通过选择响度，尖锐度和粗糙度为客观参数对实验收集到的声音样本进行客观参数分析，然后运用评分法对声音样本进行主观评价，最后运用 EXCEL 软件对主客观进行相关性进行线性回归的分析。希望通过本文能够对高级车车门声品质控制起到一定的借鉴作用。

**关键词：**多元回归分析；声品质；主观评价法；Excel

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## Abstract

With the development of China's automobile industry in full swing, people's requirements for automobile quality are also increasing day by day. Sound quality has become an important factor for people to choose to buy cars, and also become one of the important contents of automobile noise research. Nowadays, more and more consumers and researchers pay attention to the sound quality of door closing of advanced cars. Aiming at the problems encountered in the process of door closing sound quality research of advanced cars, this paper takes three types of advanced cars, A, B and C, which are common in the market, as the research object to study the sound quality of door closing sound.

This article mainly through to the senior car door shutting the analysis and evaluation on the subjective and objective factors, by selecting the loudness, sharp degree and the roughness of the objective parameters on experimental sound samples collected objective parameter analysis, and then using the scoring method to voice sample for subjective evaluation, by using the software of Excel correlation of linear regression analysis was carried out on the subjective and objective. It is hoped that this paper can be used as a reference for quality control of door sound of advanced cars.

**Key words:** Multivariate Regression Analysis; Sound Quality; Subjective Evaluation; Pearson Coefficient; Excel

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