

## 221. NOISE POLLUTION OF THE WORKING ENVIRONMENT OF EMPLOYEES IN PUBLIC TRANSPORT

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**Introduction.** The sound is a physical that stimulates the sense of hearing. It occurs due to the vibration of a sound source, propagates as elastic waves and has three physical characteristics: frequency, amplitude and complexity. The noise represents a complex sound, a mix of many different frequencies or notes that are not harmonically linked. Because of the fact that hearing organs are in full connection with the central nervous system, different types of noise can affect any body tissue, any cell or intracellular formation and can cause various forms of illness. In this way, the employees who are daily exposed to noise are at a high risk of developing various diseases that are not limited to hearing organ- the noise affects the nervous system, the cardiovascular system, reproductive function. Its action can cause insomnia, fatigue, aggression and contributes to serious mental disorders. All this make the sound pollution to be a big problem that alters the working conditions of public transport workers and requires us to study the phenomenon in order to identify useful solutions and implement them.

**Aim of the study.** To determine the main cause of the noise pollution in the cabin of the public transport.

**Materials and methods.** For general noise measurement we used the sound meter Ekofizika-110A. The measurements were made both in the driver's cab and in stations at the same time on the trolleybus route 22, in order to compare the noise level inside and outside of the transport mean.

**Results.** We conducted two sets of measurements and have got the following results: (Station/ Time/ Level (dB) outside/ Level (dB) in the cabin) Grădina Botanică/11.10/70/68; Valea Crucii/11.20/69/68; Str. Burebista/11.36/72/72; Bd Cuza Vodă/11.53/72/68; Bd Decebal/12.04/76/69; Str. Zelinski/12.15/74/67; Spitalul Municipal Nr 1/12.20/75/68; UNIC/12.35/84/80; PMAN/12.45/89/85; USMF/12.55/85/83; Str. Aldea-Teodorovici/13.05/80/80; Str. Ion Pelivan/13.20/75/79; Șos. Balcani/13.35/83/80. Conclusion: As we can notice in most cases the noise level outside of the cabin is higher than the one inside or they are almost equal. In this way, we can consider that the main cause of the noise pollution in the trolleybus is the noise from other transport means, especially it is easy to observe it on the crowded parts of the route. However the noise in the cabin is still at a high level even on the sections with few transport units. It is clear that one of the problems is also the state of the transport unit. In conclusion, we can say that solving the problem of noise pollution in public transport can be accomplished by streamlining city traffic and replacing used transport units.

**Key words:** exercise environment, noise, public transport, exposure, level