

#3. Lead author: Antonia-Bianca Zserai, Calling BS on “[Electric vehicles release more toxic emissions, are worse for the environment than gas-powered cars: study](#)” (2024)

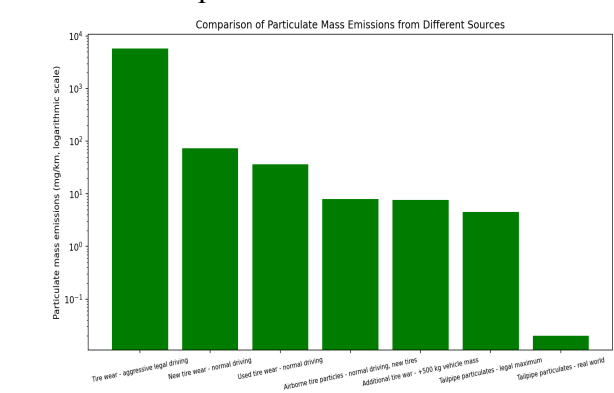
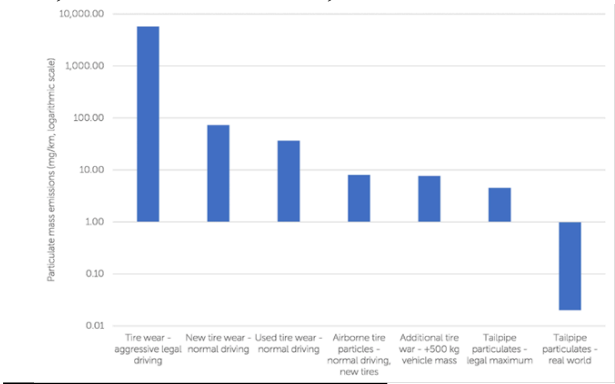
This article by the *New York Post* identifies a potential environmental downside of electric vehicles (EVs) based on the resurfaced study¹² by *Emission Analytics*. It questions the idea that EVs, which lack engine exhaust, are completely emission-free because their tires still release these particles. The author claims that EVs may release more pollution than gas-powered vehicles (NGVs).

The primary issue within this article is the comparison used. In the provided study, the researchers are not even comparing EVs to NGVs, but tire wear particle emissions to modern vehicles equipped with highly efficient gasoline particulate filters, which in itself is not an apples-to-apples comparison. The extremely low emissions from these vehicles can make any comparison seem disproportionately high, as evidenced by the bar chart visualizing the various sources of emissions (mg/km) with the last column significantly greater than it should be based on the provided table.

Additionally, the use of a logarithmic scale on the y-axis may not be immediately intuitive to all readers. Although it's a common feature in scientific presentations, it compresses the data range and could lead to misinterpretation of the relative differences between the values, making them seem smaller than they are on a linear scale. Without a baseline or a reference point including natural sources or other human activities contributing to particulate matter, it is challenging to evaluate these numbers meaningfully. Moreover, the chart does not clarify whether the emissions data is standardized to the same number of miles driven for each scenario, which is essential for making a fair comparison. Lastly, the study bases its findings on a single-vehicle model (e.g., a Volkswagen Golf) which may not represent the diverse range of vehicles. To provide evidence of the deceptive visualization, I recreated the plot according to the provided results table. As shown, the last bar (Tailpipe particulates-real world) became substantially smaller. An accurate comparison between EVs and gas-powered cars requires a complete lifecycle analysis from production to disposal, resulting in a more accurate representation of the true environmental cost of both vehicle types.

Several newspapers worldwide have shared the study's findings with biased perspectives, spreading misleading claims about EVs. This can confuse the public and stall investment in the automobile industry. Meaningful discussions on such topics require accurate data, scientific consensus, and fair consideration of different viewpoints and solutions.

	Particulate mass emissions (mg/km)	As proportion of tailpipe limit value
Tire wear - aggressive legal driving	5,760.00	1280.000
New tire wear - normal driving	73.00	16.222
Used tire wear - normal driving	36.50	8.111
Airborne tire particles - normal driving, new tires	8.03	1.784
Additional tire wear - +500 kg vehicle mass	7.67	1.703
Tailpipe particulates - legal maximum	4.50	1.000
Tailpipe particulates - real world	0.02	0.004



¹² Molden, N. (2023) *Gaining traction, losing tread pollution from tire wear now 1,850 times worse than exhaust emissions*, *Emissions Analytics*. Available at: <https://www.emissionsanalytics.com/news/gaining-traction-losing-tread>