

Patent talk: New-car smell removal courting consumers in China

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"Mmm. Love the smell of a new car!" How often have you heard from that from a starstruck passenger getting his or her first ride in your cruiser. Not so fast. One man's new-car nirvana is another's eeew.

Evidently, Ford is thinking of not having to appease either side by keeping it simple stupid: bake out the smell altogether. Ford has an application for a patent that features a system to put an end to the smell.

Phoebe Wall Howard in *Detroit Free Press* reported that Ford filed a [patent application](#) for an odor-removal [process](#) that gets rid of new-car smells once the car is purchased. "The car would determine whether conditions are right to expel compounds, and the car would drive itself to a place in the sun and bake away the offensive odor."

This might make some American new-car hopefuls scratch their heads over what could be bad about the new-car [smell](#), but there it is: consumer tastes in different parts of the world are not the same. "Consumers in China say they hate the new car smell," said the *Detroit Free Press*. "Consumer feedback from Chinese buyers in recent years has been consistent. More than 10 percent of drivers complained about the issue according to the 2018 J.D. Power China Initial Quality Study," said Howard.

Yes, but that is just China. Ford has the rest of the world to delight, so why be so concerned? *Detroit Free Press*: "China is the largest car market in the world, so carmakers take notice." [Smell testers pay attention to odors of every car item, from floor carpets to steering wheel. The goal is to reject any that may offend a buyer, *Quartz* noted.]

J.D. Power's Brent Gruber was quoted as saying that, in that market, unpleasant interior smell/odor remained the top industry problem. "To put that in context, it is nearly double the problem rate of the second most prevalent problem, excessive fuel consumption."

As for a new-car analysis of what constituents cause the smell, the finding was that it is a result of "volatile organic compounds given off by leather, plastic and vinyl," said Howard. In addition, smell contributors

may be the chemicals used to attach and seal car parts. *The Verge* named the source of "new car smell" as having to do with heating of [materials](#) such as wood and leather.

So, what does the [patent](#) talk about as a solution? Speed up the heating process. Bake it off.

Quartz elaborated: "The baking process would be accompanied by opening at least one window, turning on the heater, turning on the fan, or running the engine. Ford's proposed system would use sensors to determine if the intensity of the sunlight and the ambient temperature are high enough to trigger the off-gassing and to measure the level of VOCs."

Sean O'Kane, *The Verge*: "The patent application describes semi-autonomous or fully autonomous cars driving themselves to a nice, sunny spot (probably on some hot asphalt), parking, turning on the heat, slightly cracking the windows, and intermittently running the engine. In this scenario, the vehicle 'bakes' away the 'new car smell.'"

Beyond the process devised as a solution in the patent filing, the interesting outcome of this patent application is in the disclosure itself that was spotlighted, a smell perception divide between the U.S. and China. That disclosure is that the very same smell that delighted Americans turned off Chinese. Is smell that much of a cultural mystique?

Actually, reader reactions and story comments on various sites offered interesting responses to explain divided opinions over whether a new car represented scent or stink.

Americans, suggested one reaction, had positive smell associations, regarding a car as a new as a new addition in life—like walking into a

new house, with all its smells of stray shavings, paint thinners and cleaning solvents.

In China, consumers might be especially concerned over factory fallout versus public health. "As [Quartz](#) has reported in the past, Chinese consumers who are car shopping think the odor is a bigger problem than poor fuel economy and wind noise, as some worry the smell could be a health hazard."

Last year, a *Journal of Environmental Sciences* paper titled "Ambient volatile organic compounds pollution in China" said that "Owing to rapid economic and industrial development, China has been suffering from degraded air quality and visibility. Volatile organic compounds (VOCs) are important precursors to the formation of ground-level ozone and hence photochemical smog." The authors stated that VOCs elicited not only public concern but also a new impetus to scientific [interest](#).

More information: Reactive hydroxylated and carboxylated polymers for use as adhesion promoters, [United States Patent Application, 20180327540](#).

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