

QUANT F car will be shown next month in Geneva

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nanoFlowcell AG will show its QUANT F car at the 2015 Geneva Motor Show. This is an electric auto in the style of an "e-sports saloon," a large sports saloon for four, with a range of 800 km (497 miles). The car is being promoted for its exceptional performance and for its pointing the way to the future shape of sustainable electric mobility. With its "zero-

harmful emissions," the car will have its world premiere at the Geneva show in March.

A news release this month spelled out its features and innovations. "A top speed of over 300 km/h in all-electric mode with nanoFlowcell drive technology and zero-harmful emissions round off the exceptional performance attributes of the new QUANT F," said the company's news release. As an alternative drive system, the nanoFlowcell is operated with ionic liquid. "Instead of using hydrogen and oxygen as in a conventional fuel cell, we work with two ionic fluids - one with a positive charge and one with a negative charge," said Chief Technology Officer Nunzio La Vecchia. With a total tank capacity of 500 liters (two times 250 liters in two tanks accommodated separately), the company achieved an increase in range of over 30 percent in comparison to the QUANT E from 2014.

"We are only in the initial phase of our development work," said La Vecchia. "The fact that we store the energy for our drive in a fluid provides us with enormous advantages over systems employed to date in the field of [electric mobility](#). We can use all the cavities in the vehicle to transport the ionic liquid." The company combined its flow battery with a new buffer system. Overall, they put the QUANT F through re-engineering and re-design. They said that there is a newly developed monocoque made of carbon fiber with a narrower A-pillar. They said the result is a more spacious interior and "exceptional" safety for four passengers.

Among the innovations is a "disengageable front axle for optimum performance, where the 4x4 all-wheel drive, implemented via four electric motors, can be converted automatically into a rear-wheel drive "at appropriately high speeds or high acceleration rates." The front axle is "declutched" and runs in idling mode. They try to provide the driver with optimum acceleration and stability in every driving situation, especially at higher speeds, said the CTO.



The [car](#) has a two-stage rear aerofoil, "activated automatically on attaining a speed of 80 km/h, applying additional negative lift force to the rear wheels for sporty driving, particularly at high speeds."



"With the QUANT F we are currently able to attain peak output of 1090 PS/801.69 kW for a limited duration and a maximum rated voltage of 735 V (previously 600 V)," said La Vecchia. For technical and economic reasons, he added, the rated voltage for normal operation of the QUANT F will stand at approximately 400 V. "This enables efficient and economical driving and means correspondingly greater ranges accompanied by outstanding performance with zero harmful emissions."

More information: mediacenter.nanoflowcell.com/m...w-quant-f-in-geneva/

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