Olfactorial Perceptronics

Initiative: Kurswechsel – Forschungsneuland zwischen den Lebenswissenschaften und Natur- oder

Technikwissenschaften

Ausschreibung: Planning Grants

Bewilligung: 17.06.2019

Laufzeit: 1 Jahre 6 Monate

Projekt-Website: https://perceptronics.science/

Human olfaction is a very efficient sensory system, which has inspired the search for an electronic analog. Early on it was recognized that such an artificial nose requires the inclusion of perception, the interpretation of sensation in light of experience. This type of evaluation is achieved by using methods of machine learning and artificial intelligence. A breakthrough of perceptive electronics (short: perceptronics) can only happen in a concerted effort of science, engineering and medicine which stringently builds on recent advances in each discipline. The proposed research group will work in this spirit as an interdisciplinary team on topics of perceptronics for olfaction. The intended planning phase will be used to gather leading experts in the fields of (nano) sensorics, olfaction, perception and machine learning to facilitate co-operation and to prepare a qualification program to bridge the different disciplines.

Projektbeteiligte

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Open Access-Publikationen

Machine learning-enabled graphene-based electronic olfaction sensors and their olfactory performance assessment
Olfactory perception in relation to the physico-chemical odor space

Es werden die Institutionen genannt, an denen das Vorhaben durchgeführt wurde, und nicht die aktuelle Adresse.

01.09.2024

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