

Record odors by a novel optoelectronic nose based on surface plasmon resonance imaging

CONTACT

yanxia.hou-broutin
@cea.fr
tristan@aryballe.com

Aryballe Technologies was created in 2014 in Grenoble, based on an exclusively licensed patent by the INAC laboratory SyMMES (CEA-CNRS-UGA). Aryballe aims to develop innovative technologies, databases, software and devices applied to the identification, measurement and representation of smells. Most of the developments are based on technologies initially developed

at INAC: the optoelectronic nose uses biomimetic approaches for designing new sensing materials and surface plasmon resonance imaging as detection system (Fig.). Aryballe has successfully miniaturized such an optoelectronic nose, and launched the first portable and universal odor detection device (NeOse Pro™) in 2018 (Fig.). Today, these handheld devices are routinely used in the Aryballe laboratory and by clients for odor analysis related to various market segments including anosmia, flavor & fragrances, olfactory pollution/environment, home automation, etc.

To learn more, please visit <http://neosepro.com/> and <http://aryballe-technologies.com/>



Fig. : Left: Optoelectronic nose: laboratory set-up (copyright: © Denis Morel / CEA); Right: Miniaturized handheld optoelectronic nose, NeOse Pro™ developed by Aryballe Tech. (copyright: Aryballe Tech.)

OUTCOMES

Patents: [1] SPram (now SyMMES) Patent “Capteurs de nez ou de langue électronique” (FR 12 51579), licensed to Aryballe Tech. in 2014 ; [2] patent SyMMES/Aryballe FR1758547 (2017) ; [3] patent SyMMES/Aryballe FR1751751 (2017)

Leverage: Project WISE (FUI) 2016; Industrial Chair of Excellence for Thierry Livache, Nanosciences Foundation, 2018