

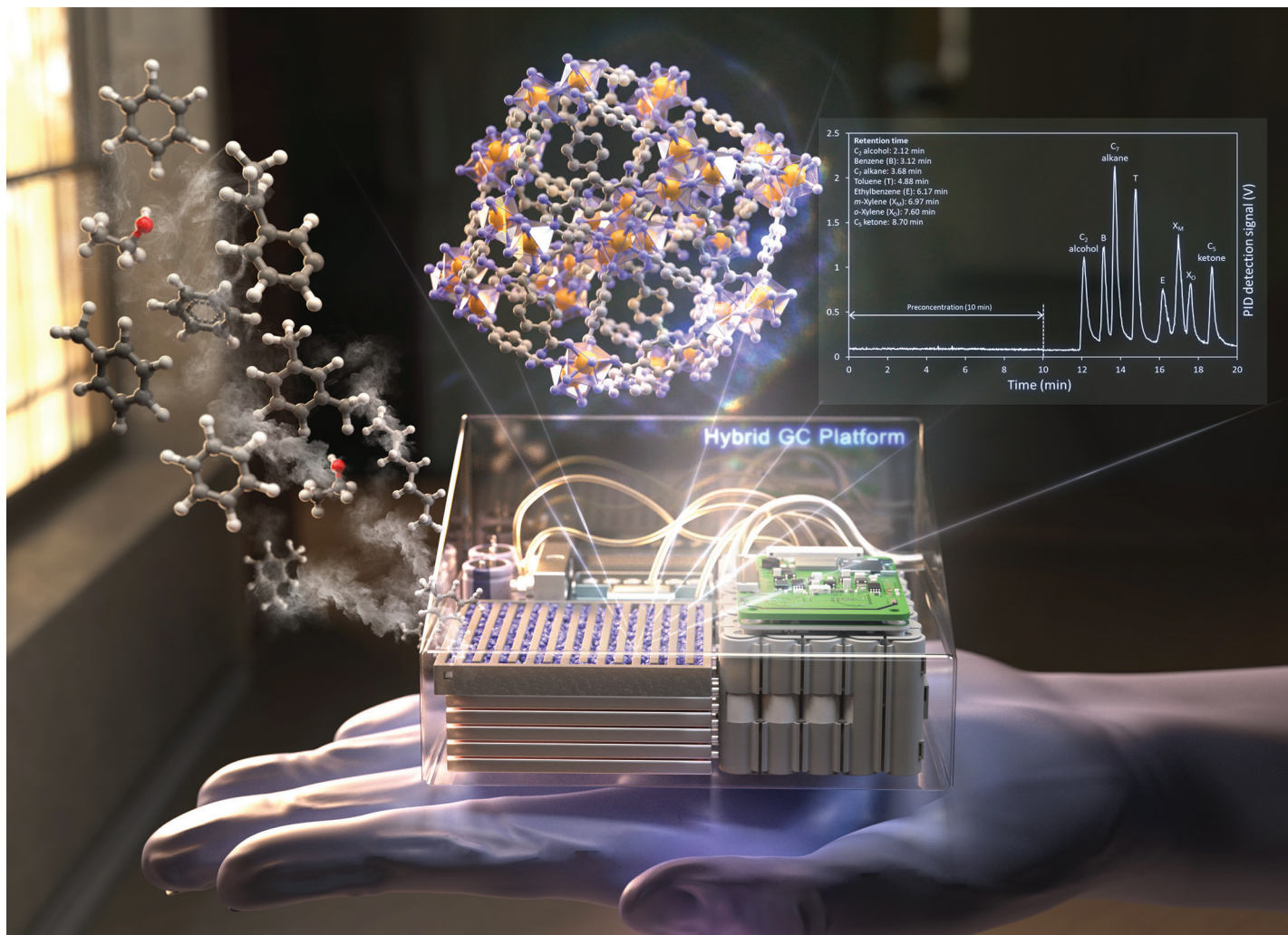
GOLD
OPEN
ACCESS

EES Solar

Exceptional research on solar
energy and photovoltaics

Part of the EES family

Join | Publish with us
in | rsc.li/EESolar



Showcasing research on a compact hybrid gas chromatography system from Professor Si-Hyung Lim's Nanomechanics laboratory, School of Mechanical Engineering, Kookmin University, Seoul, Republic of Korea.

Hybrid GC platform: a micro gas chromatography system with a simple configuration for low-concentration VOC analysis

A compact and simple gas chromatography platform (0.62 L) was developed by adopting a hybrid chip coated with a metal-organic framework, enabling both gas preconcentration and separation within a single device. The platform achieved parts-per-billion-level detection limits for hazardous aromatic compounds. In indoor air analysis, the platform showed trends consistent with those from commercial thermal desorption-gas chromatography-mass spectrometry, highlighting potential for environmental monitoring, air quality assessment, and non-invasive diagnostics.

Image reproduced by permission of Si-Hyung Lim from *Lab Chip*, 2025, **25**, 4620.

As featured in:



See Si-Hyung Lim *et al.*, *Lab Chip*, 2025, **25**, 4620.