功能纳米系统研究与应用研究所

Institute of Functional Nanosystems and Applications

一、研究领域 / Research Fields

二、研究内容 / Research Contents

5. 高分子纳米复合分离膜与气凝胶分离材料及其分离检测一体化器件

团队负责人：林歆怡

团队成员：林歆怡，彭应裕，吕嫣

教授：林歆怡

Chua YH, Phan-Quang GC, Phang IY, Lee HK, Abdad MY, Tan NS, Ling XY*. Non-Invasive and Point-Of-Care Surface-Enhanced Raman Scattering (SERS)-based Breathalyzer for Mass Screening of Coronavirus Disease 2019 (COVID-19) under 5 Minutes. ACS Nano 2022, 16, 2629.

2)Nguyen LBT, Leong YX, Koh CSL, Leong SX, Boong SK, Sim HYF, Phan-Quang GC, Phang IY, Ling XY*. Inducing Ring Complexation for Efficient Capture and Detection of Small Gaseous Molecules Using SERS for Environmental Surveillance. Angewandte Chemie International Edition 2022, 61, e202207447

3)Leong YX, Tan EX, Leong SX, Koh CSL, Nguyen LBT, Chen JRT, Xia K, Ling XY*. Where Nanosensors Meet Machine Learning: Prospects and Challenges in Detecting Disease X. ACS Nano 2022, 16, 13279.

4)Lee HK, Lee YH, Koh CSL, Phan-Quang GC, Han X, Lay CL, Sim HYF, Kao YC, An Q, Ling XY*. Designing Surface-en-

Applications. National Research Foundation Fellowship (NRFF)

5)Portable SERS [illegible] COVID Fund

Samples within 30 min. ACS Nano 2020, 14, 2542.

Ling XY*. ZIF-induced d-band Modification in Bimetallic Nanocatalyst: Achieving > 44% Efficiency in Ambient Nitrogen Reduction Reaction. Angewandte Chemie International Edition 2020, 132, 17145.