

MSDE

Molecular Systems Design & Engineering rsc.li/molecular-engineering

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2058-9689 CODEN MSDEBG 9(6) 535-672 (2024)



Cover
See Kazuki Murai *et al.*,
pp. 561–570.
Image reproduced by
permission of Kazuki Murai
from *Mol. Syst. Des. Eng.*,
2024, 9, 561. Artwork created
by Kazuki Murai



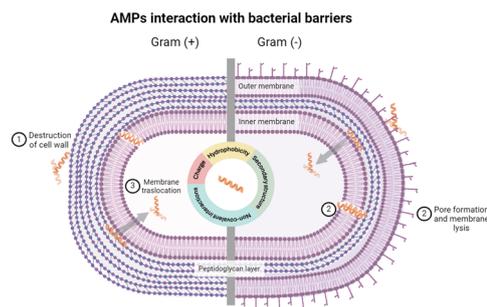
Inside cover
See Jiangjiexing Wu,
Jinli Zhang *et al.*,
pp. 571–580.
Image reproduced by
permission of Jiangjiexing Wu
from *Mol. Syst. Des. Eng.*,
2024, 9, 571. Artwork created
by Jiangjiexing Wu

MINI REVIEW

541

Engineering the interaction of short antimicrobial peptides with bacterial barriers

Costanza Montis, Elisa Marelli, Francesco Valle,
Francesca Baldelli Bombelli and Claudia Pigliacelli*

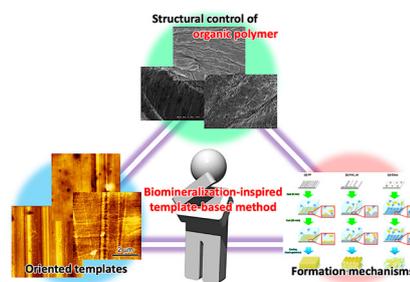


PAPERS

561

Formation mechanism of anisotropic gelatin hydrogel by self-assembly on oriented templates

Kohei Kawaguchi, Tamaki Maeda, Syuuhei Komatsu,
Yoshihiro Nomura and Kazuki Murai*



K. Murai *et al.*



Industrial Chemistry & Materials

GOLD
OPEN
ACCESS

Focus on industrial chemistry
Advance material innovations
Highlight interdisciplinary feature

Innovative.
Interdisciplinary.
Problem solving

APCs currently waived

Learn more about ICM
Submit your high-quality article

 @IndChemMater

 @IndChemMater

rsc.li/icm



571

Deep eutectic solvent boosted ruthenium catalysts for acetylene hydrochlorination

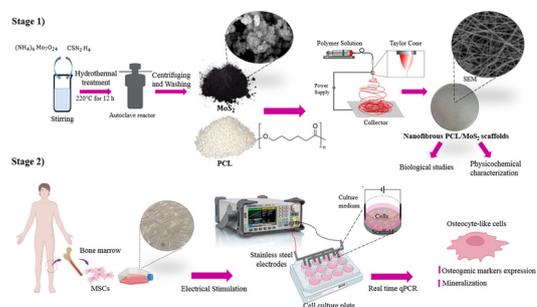
Lin Feng Li, Bao Wang, Tiantong Zhang, Haiyang Zhang, Wei Li, Jiangjiexing Wu* and Jinli Zhang*



581

Enhancing osteogenic differentiation of mesenchymal stem cells seeded on a polycaprolactone/MoS₂ nanofibrous scaffold through electrical stimulation

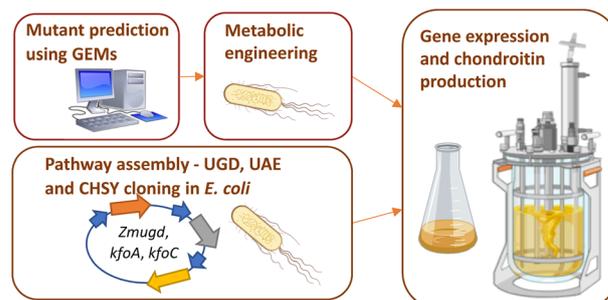
Elahe Amiri, Mehrdad Khakbiz,* Behnaz Bakhshandeh,* Nika Ranjbar and Javad Mohammadnejad



597

Optimization of chondroitin production in *E. coli* using genome scale models

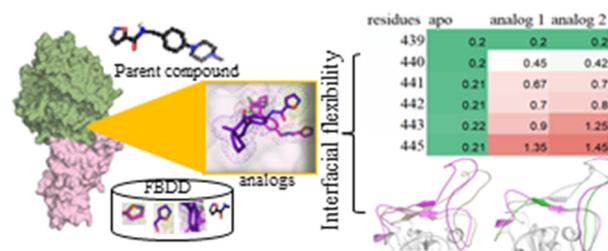
Márcia R. Couto, Joana L. Rodrigues,* Adelaide Braga, Oscar Dias and Lígia R. Rodrigues



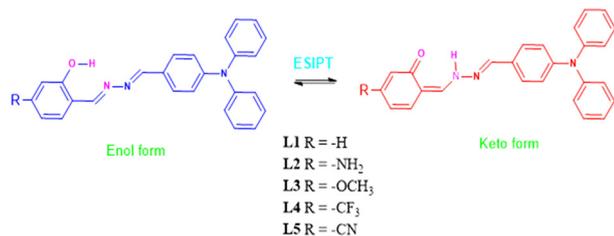
612

Effect of computationally designed fragment-based analogs on the RBD-ACE2 complex of the SARS-CoV-2 P.1 variant

Surabhi Lata and Mohd. Akif*



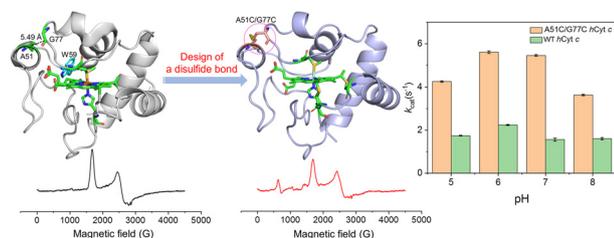
625



Tuning the photophysical properties of ESIPt active unsymmetrical azine dyes by the change in the substituent and solvent: TD-PBE0 and TD-CAM-B3LYP studies

Hossein Roohi* and Tahereh Pouryahya

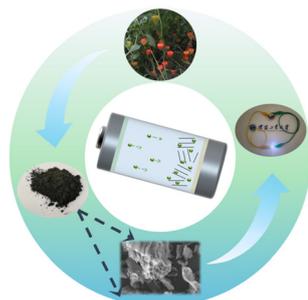
649



Design and engineering of an artificial disulfide bond in human cytochrome c to regulate the protein structure and function

Yan-Yan Li, Yu Feng, Lu Yu, Shuang-Shuang Long,*
Shu-Qin Gao and Ying-Wu Lin*

660



Hard carbon derived from *Physalis alkekengi* L. husks as a stable anode for sodium-ion batteries

Liyang Liu, Henry R. Tinker, Yusheng Wu, Jiaqi Lv,
Laishi Li, Yingjiao Fang, Yuhan Wu* and Yang Xu*

