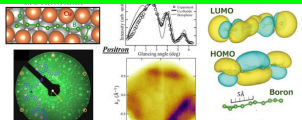




## 貴金属(111)表面におけるホウ素原子鎖の構造と電子状態

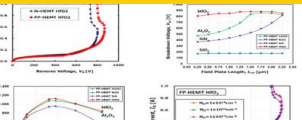


Y. Tsujikawa *et al.*  
**Structure and Electronic State of Boron Atomic Chains on a Noble Metal (111) Surface**  
Vol. 22, Iss. 1, pp. 1-8 (2024) (Review Paper)

Review

separate affect crystal reveal 2d usage 111d two structure  
copper analyze CU 3d cu ideal three  
concerning surface 2d dimensional phase deposition  
relative arrange compose atomic  
intriguingly know electronic development

## 絶縁体パッシベーション層を有する高耐圧AlGaN/GaN高電子移動度トランジスタの設計最適化

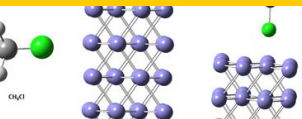


P. H. Than and T. Q. Than  
**Design Optimization of High Breakdown Voltage AlGaN/GaN High Electron Mobility Transistor with Insulator Dielectric Passivation Layer**  
Vol. 22, Iss. 1, pp. 9-15 (2024) (Regular Paper)

Regular

available retrieve utilize breakdown favorable condition  
minimal plate high insulator dielectric  
high voltage algan\_gan heterostructure  
generation mobility optimize passivation effect  
possess aid great finding

## Fe(110)表面とクロロメタンのナノスケールの相互作用; ファンデルワールス計算

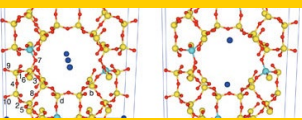


S. A. Sarairoh  
**Nano-scale Interaction of Chloromethane (CH<sub>3</sub>Cl) with the Fe(110) Surface; A van der Waals Calculation**  
Vol. 22, Iss. 1, pp. 16-24 (2024) (Regular Paper)

Regular

reasonable consider dissociative atom use adsorption  
group investigate surface molecule interaction  
bong great 2d surface molecule  
with methyl Cl chloromethane  
differen molecular

## モルデナイト型ゼオライトの原子・電子構造

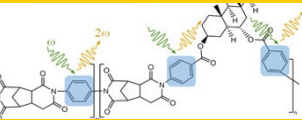


S. Hosokawa *et al.*  
**Atomic and Electronic Structures on a Mordenite Zeolite**  
Vol. 22, Iss. 1, pp. 25-31 (2024) (Regular Paper)

Regular

mordenite zeolite energy state  
find sexes minor atomic xsas soft apply  
insulate obtain partial orbital  
valence electronic measure functional

## 二次非線形光学分光によるステロイド構造をもつポリイミドの表面改質の保存時間依存性の検出

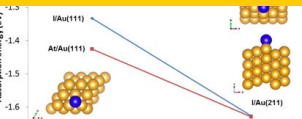


T. T. Nguyen *et al.*  
**Detection of Surface Modification of Polyimide Containing Steroidal Structure as a Function of Storage Time Using Second-Order Nonlinear Optical Spectroscopy**  
Vol. 22, Iss. 1, pp. 32-37 (2024) (Regular Paper)

Regular

occur ambient harmonic steroidal show molecule  
group investigate surface molecule interaction  
generation time vibrational suggest sum more  
insignificant

## 金表面へのヨウ素とアスタチンの吸着における表面ファセット効果

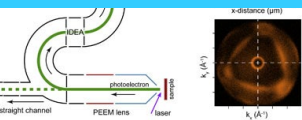


J. Tanudji *et al.*  
**Surface Facet Effect on the Adsorption of Iodine and Astatine on Gold Surface**  
Vol. 22, Iss. 1, pp. 38-45 (2024) (Regular Paper)

Regular

strong experimental geometric adsorption nucleus  
necessity compare first find 4f astatine  
effect electron makes surface atomic  
element functional diffuse gold au represent center  
valence iodine dominant spin base future

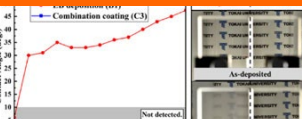
## 真空紫外レーザーを用いた光電子顕微鏡装置の開発



K. Yaji and S. Tsuda  
**Development of a Photoemission Microscopy Apparatus Using a Vacuum Ultraviolet Laser**  
Vol. 22, Iss. 1, pp. 46-52 (2024) (Regular Paper)

Technical

available demonstrate sample performance  
national electronic real spatial science  
double photoemissions space filter silver  
band spectroscopy pattern combine report show apparatus  
photoelectron realize

コンビネーションコーティング法による超親水性低屈折率SiO<sub>2</sub>光学薄膜の作製

M. Ito *et al.*  
**Super Hydrophilic Low Refractive Index SiO<sub>2</sub> Optical Thin Films Deposited by Using a Combination Coating Method**  
Vol. 22, Iss. 1, pp. 53-57 (2024) (Regular Paper)

Proceeding

surface direct evaluate increase hydrophilicity  
refractive hydrophilic high coating  
angle process method thin low combination roughness  
particle year deposit deposition reason  
study film use lose deposition  
beam exhibit index contact columnar result

## MFI — マスフィルターイオンゲージ

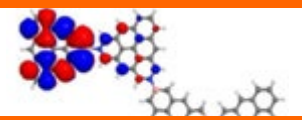


H. Bekman *et al.*  
**MFI - A Mass Filtered Ion Gauge**  
Vol. 22, Iss. 1, pp. 58-73 (2024) (Regular Paper)

Proceeding

filter low state sensitive filter sensor additional  
control robust analyzer gauge mass detect entire spec  
vacuum contamination ion high early transient  
compound residual system time volatile unique

## ボウタイ型ナノグラフェンのDFTによる研究



R. Iida *et al.*  
**DFT Study of Bowtie Shaped Nanographene**  
Vol. 22, Iss. 1, pp. 74-78 (2024) (Regular Paper)

Proceeding

boron shape nanographene localize tetramer  
fundamental electronic level spintronic  
equal state use density  
bowtie goble triangulene spin device  
nitrogen analyze ferromagnetic theory

## J-PARC COMETプロジェクト用3Dプリントビームウィンドウ



H. Shidara *et al.*  
**3D-Printed Beam Window for J-PARC COMET Project**  
Vol. 22, Iss. 1, pp. 79-85 (2024) (Regular Paper)

Proceeding

additive concave pass 3d shape focus hard  
large time pressurized dome beam window  
develop employ tailor-made fabricate separate  
particle key isotactic mpa high thin rubicate titanium conventional nitus  
alloy withstand project