

Xiaoqing Xu

Sr Research Engineer, Stanford Nanofabrication Facility

Bio

ACADEMIC APPOINTMENTS

- Sr Research Engineer, Stanford Nanofabrication Facility

Publications

PUBLICATIONS

- **Analysis of mobility-limiting mechanisms of the two-dimensional hole gas on hydrogen-terminated diamond** *PHYSICAL REVIEW B*
Peterson, R., Malakoutian, M., Xu, X., Chapin, C., Chowdhury, S., Senesky, D. G.
2020; 102 (7)
- **Tuning Electrical and Thermal Transport in AlGaIn/GaN Heterostructures via Buffer Layer Engineering** *ADVANCED FUNCTIONAL MATERIALS*
Yalamarthy, A., So, H., Rojo, M., Suria, A. J., Xu, X., Pop, E., Senesky, D. G.
2018; 28 (22)
- **Photoelectrochemical Water Oxidation by GaAs Nanowire Arrays Protected with Atomic Layer Deposited NiO (x) Electrocatalysts**
Zeng, J., Xu, X., Parameshwaran, V., Baker, J., Bent, S., Wong, H., Clemens, B.
SPRINGER.2018: 932–37
- **Temperature-Dependent Thermal Boundary Conductance of Monolayer MoS₂ by Raman Thermometry** *ACS APPLIED MATERIALS & INTERFACES*
Yalon, E., Aslan, O., Smithe, K. H., McClellan, C. J., Suryavanshi, S. V., Xiong, F., Sood, A., Neumann, C. M., Xu, X., Goodson, K. E., Heinz, T. F., Pop, E.
2017; 9 (49): 43013–20
- **Degradation of 2DEG transport properties in GaN-capped AlGaIn/GaN heterostructures at 600 degrees C in oxidizing and inert environments** *JOURNAL OF APPLIED PHYSICS*
Hou, M., Jain, S. R., So, H., Heuser, T. A., Xu, X., Suria, A. J., Senesky, D. G.
2017; 122 (19)
- **ISFET pH Sensitivity: Counter-Ions Play a Key Role** *SCIENTIFIC REPORTS*
Parizi, K. B., Xu, X., Pal, A., Hu, X., Wong, H. S.
2017; 7
- **Micrometer-scale magnetic-resonance-coupled radio-frequency identification and transceivers for wireless sensors in cells** *Physical Review Applied*
Hu, X., Aggarwal, K., Yang, M., Parizi, K., Xu, X., Akin, D., Poon, A., Wong, H.
2017
- **Engineering a Large Scale Indium Nanodot Array for Refractive Index Sensing** *ACS APPLIED MATERIALS & INTERFACES*
Xu, X., Hu, X., Chen, X., Kang, Y., Zhang, Z., Parizi, K. B., Wong, H. P.
2016; 8 (46): 31871-31877
- **Wafer-level MOCVD growth of AlGaIn/GaN-on-Si HEMT structures with ultra-high room temperature 2DEG mobility** *AIP ADVANCES*
Xu, X., Zhong, J., So, H., Norvilas, A., Sommerhalter, C., Senesky, D. G., Tang, M.
2016; 6 (11)
- **Crystallinity, Surface Morphology, and Photoelectrochemical Effects in Conical InP and InN Nanowires Grown on Silicon.** *ACS applied materials & interfaces*
Parameshwaran, V., Xu, X., Clemens, B.

2016; 8 (33): 21454-21464

- **Electrochemical Reduction Properties of Extended Space Charge InGaP and GaP Epitaxial Layers** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Parameshwaran, V., Xu, X., Clemens, B.
2016; 163 (8): H714-H721
- **VLSI-Compatible Carbon Nanotube Doping Technique with Low Work-Function Metal Oxides.** *Nano letters*
Suriyasena Liyanage, L., Xu, X., Pitner, G., Bao, Z., Wong, H. P.
2014; 14 (4): 1884-1890
- **GaAs buffer layer technique for vertical nanowire growth on Si substrate** *APPLIED PHYSICS LETTERS*
Xu, X., Li, Y., Parizi, K. B., Huo, Y., Kang, Y., Wong, H. P.
2014; 104 (8)
- **N-Type Doping of Carbon Nanotube Transistors using Yttrium Oxide (Y₂O₃)** *PROCEEDINGS OF TECHNICAL PROGRAM - 2014 INTERNATIONAL SYMPOSIUM ON VLSI TECHNOLOGY, SYSTEMS AND APPLICATION (VLSI-TSA)*
Liyanage, L. S., Pitner, G., Xu, X., Wong, H. P.
2014
- **Dilute phosphide nitride materials as photocathodes for electrochemical solar energy conversion** *Conference on Physics, Simulation, and Photonic Engineering of Photovoltaic Devices II*
Parameshwaran, V., Xu, X., Kang, Y., Harris, J., Wong, H. P., Clemens, B.
SPIE-INT SOC OPTICAL ENGINEERING.2013