

# Wei Dou

## List of Publications by Year in descending order

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31  
papers

1,105  
citations

567281

15  
h-index

580821

25  
g-index

31  
all docs

31  
docs citations

31  
times ranked

750  
citing authors

#	ARTICLE	IF	CITATIONS
1	An optically pumped 2.5- $\mu\text{m}$ GeSn laser on Si operating at 110 K. Applied Physics Letters, 2016, 109, .	6.6	186
2	Si-Based GeSn Lasers with Wavelength Coverage of 2-3 $\mu\text{m}$ and Operating Temperatures up to 180 K. ACS Photonics, 2018, 5, 827-833.	6.6	148
3	Si-Based GeSn Photodetectors toward Mid-Infrared Imaging Applications. ACS Photonics, 2019, 6, 2807-2815.	6.6	124
4	Optically Pumped GeSn Lasers Operating at 270 K with Broad Waveguide Structures on Si. ACS Photonics, 2019, 6, 1434-1441.	6.6	109
5	Investigation of GeSn Strain Relaxation and Spontaneous Composition Gradient for Low-Defect and High-Sn Alloy Growth. Scientific Reports, 2018, 8, 5640.	3.3	90
6	Optically pumped lasing at 3- $\mu\text{m}$ from compositionally graded GeSn with tin up to 223%. Optics Letters, 2018, 43, 4558.	3.3	60
7	Systematic study of GeSn heterostructure-based light-emitting diodes towards mid-infrared applications. Journal of Applied Physics, 2016, 120, .	2.5	58
8	All group-IV SiGeSn/GeSn/SiGeSn QW laser on Si operating up to 90 K. Applied Physics Letters, 2018, 113, .	3.3	44
9	Study of a SiGeSn/GeSn/SiGeSn structure toward direct bandgap type-I quantum well for all group-IV optoelectronics. Optics Letters, 2017, 42, 387.	3.3	39
10	Fundamentals of Ge <sub>1-x</sub> Sn <sub>x</sub> and Si <sub>y</sub> Ge <sub>1-x-y</sub> Sn <sub>x</sub> RPCVD epitaxy. Materials Science in Semiconductor Processing, 2017, 70, 38-43.	4.0	36
11	UHV-CVD growth of high quality GeSn using SnCl <sub>4</sub> : from material growth development to prototype devices. Optical Materials Express, 2019, 9, 3277.	3.0	26
12	Optical Characterization of Si-Based Ge <sub>1-x</sub> Sn <sub>x</sub> Alloys with Sn Compositions up to 12%. Journal of Electronic Materials, 2016, 45, 2133-2141.	2.2	25
13	Direct bandgap type-I GeSn/GeSn quantum well on a GeSn- and Ge- buffered Si substrate. AIP Advances, 2018, 8, 025104.	1.3	19
14	Crystalline GeSn growth by plasma enhanced chemical vapor deposition. Optical Materials Express, 2018, 8, 3220.	3.0	18
15	Study of direct bandgap type-I GeSn/GeSn double quantum well with improved carrier confinement. Nanotechnology, 2018, 29, 465201.	2.6	17
16	Structural and Optical Characteristics of GeSn Quantum Wells for Silicon-Based Mid-Infrared Optoelectronic Applications. Journal of Electronic Materials, 2016, 45, 6265-6272.	2.2	16
17	Study of High-Quality GeSn Alloys Grown by Chemical Vapor Deposition towards Mid-Infrared Applications. Journal of Electronic Materials, 2016, 45, 6251-6257.	2.2	15
18	Buffer-Free GeSn and SiGeSn Growth on Si Substrate Using In Situ SnD <sub>4</sub> Gas Mixing. Journal of Electronic Materials, 2016, 45, 2051-2058.	2.2	13

#	ARTICLE	IF	CITATIONS
19	Heteroepitaxial Growth of Germanium-on-Silicon Using Ultrahigh-Vacuum Chemical Vapor Deposition with RF Plasma Enhancement. <i>Journal of Electronic Materials</i> , 2018, 47, 4561-4570.	2.2	13
20	Low temperature epitaxy of high-quality Ge buffer using plasma enhancement via UHV-CVD system for photonic device applications. <i>Applied Surface Science</i> , 2019, 481, 246-254.	6.1	13
21	Si <sub>y</sub> Ge <sub>1-x</sub> Sn <sub>x</sub> films grown on Si using a cold-wall ultrahigh-vacuum chemical vapor deposition system. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2016, 34, 011201.	1.2	11
22	Comparison study of the low temperature growth of dilute GeSn and Ge. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2017, 35, 061204.	1.2	9
23	Study of material and optical properties of Si <sub>x</sub> Ge <sub>1-x</sub> Sn <sub>y</sub> alloys for Si-based optoelectronic device applications. <i>Optical Materials Express</i> , 2017, 7, 3517.	3.0	7
24	Investigation of SiGeSn/GeSn/SiGeSn single quantum well with enhanced well emission. <i>Nanotechnology</i> , 2022, 33, 085201.	2.6	5
25	Growth and Characterization of SiGe on c-Plane Sapphire Using a Chemical Vapor Deposition System. <i>Journal of Electronic Materials</i> , 2020, 49, 4809-4815.	2.2	2
26	Development of SiGeSn Technique Towards Integrated Mid-Infrared Photonics Applications. , 2018, , .		1
27	Si-based Mid-Infrared GeSn-Edge-Emitting Laser with Operating Temperature up to 260 K. , 2019, , .		1
28	GeSn-based light sources and photoconductors towards integrated photonics for the mid-infrared. , 2017, , .		0
29	Study of SiGeSn/GeSn/SiGeSn Quantum Well towards All Group-IV-Optoelectronics. , 2017, , .		0
30	Optically pumped Si-based edge-emitting GeSn laser. , 2017, , .		0
31	Investigation of SiGeSn/GeSn/SiGeSn Quantum Well Structures and Optically Pumped Lasers on Si. , 2019, , .		0