

Conn Center for Renewable Energy Research Impact Report 2021 - 2022 PUBLICATIONS BY YEAR: 2021 CONN CENTER STAFF and ASSOCIATED FACULTY														
PUBLICATIONS BY YEAR			CONN CENTER STAFF & ASSOCIATED FACULTY				2021	6.739	914	88	31	0	0	119
#	CODE	AUTHORS	TITLE	JOURNAL	IMPACT FACTOR	CITATIONS-9/2023	YEAR	ASSOC FAC PUB	CONN STAFF-DRIVEN PUB	CENTER FACULTY COLLAB	FACULTY W/CENTER CONTRIB	TOTAL PUBS		
1	ABU	Abu UO, Musa MRK, Rajapakse M, Karki B, Vithanage D, Yu M, Sumanasekera G, Jasinski JB	Vapor-Phase Intercalation of Cesium into Black Phosphorous	JOURNAL OF PHYSICAL CHEMISTRY C	4.177	2	2021		1			1		
2	AFR	Afreen G., Lara-Ramos J.A., Vidwans N.A., Alta V., Kumar V, Vaddiraju S., Machuca-Martinez F., Sunkara M.K., Upadhyayula S.	Bulk production of porous TiO2 nanowires by unique solvo-plasma oxidation approach for combating biotic and abiotic water contaminants	JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS	2.779	1	2021		1			1		
3	ALO	Alom, MS; Ramezanipour, F	Pseudocapacitive charge storage in layered oxides SrLaFe1-xCoxO4-delta (x=0-1)	MATERIALS LETTERS	3	7	2021	1				1		
4	ALO	Alom, MS; Ramezanipour, F	Layered Oxides SrLaFe1-xCoxO4-delta (x=0-1) as Bifunctional Electrocatalysts for Water-Splitting	CHEMCATCHEM	4.5	13	2021	1				1		
5	ALQ	Alqatamin, M; Latham, J; Smith, ZT; Grainger, BM; McIntyre, ML	Current Control of a Three-Phase, Grid-Connected Inverter in the Presence of Unknown Grid Parameters Without a Phase-Locked Loop	IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS	5.5	5	2021	1				1		
6	AND	Andriotis AN, Menon M	Codoping induced enhanced ferromagnetism in diluted magnetic semiconductors	JOURNAL OF PHYSICS-CONDENSED MATTER	2.745	5	2021		1			1		
7	AND	Andriotis AN, Menon M	Estimation of sp-d exchange constants revisited	JOURNAL OF PHYSICS-CONDENSED MATTER	2.745	3	2021		1			1		
8	ANS	Ansari TN, Jasinski JB, Leahy DK, Handa S	Metal-Micelle Cooperativity: Phosphine Ligand-Free Ultrasmall Palladium(II) Nanoparticles for Oxidative Mizoroki-Heck-type Couplings in Water at Room Temperature	JACS AU	16.383	21	2021	1				1		
9	ANS	Ansari TN, Sharma S, Hazra S, Jasinski JB, Wilson AJ, Hicks F, Leahy DK, Handa S	Shielding Effect of Nanomicelles: Stable and Catalytically Active Oxidizable Pd(0) Nanoparticle Catalyst Compatible for Cross-Couplings of Water-Sensitive Acid Chlorides in Water	JACS AU	16.383	19	2021	1				1		
10	ANS	Ansari, TN; Sharma, S; Bora, PP; Ogulu, D; Parmar, S; Gallou, F; Kozlowski, PM; Handa, S	Photoassisted Charge Transfer Between DMF and Substrate: Facile and Selective N,N-Dimethylamination of Fluoroarenes	CHEMSUSCHEM	8.4	3	2021	1				1		
11	BAJ	Bajaj, K; Buchanan, RM; Grapperhaus, CA	Antifungal activity of thiosemicarbazones, bis(thiosemicarbazones), and their metal complexes	JOURNAL OF INORGANIC BIOCHEMISTRY	4.336	14	2021	1				1		
12	BAL	Balla VK, Tadimetri JGD, Sudan K, Satyavolu J, Kate KH	First report on fabrication and characterization of soybean hull fiber: polymer composite filaments for fused filament fabrication	PROGRESS IN ADDITIVE MANUFACTURING	4.97	8	2021		1			1		
13	BAR	Barai, P; Rojas, T; Narayanan, B; Ngo, AT; Curtiss, LA; Srinivasan, V	Investigation of Delamination-Induced Performance Decay at the Cathode/LLZO Interface	CHEMISTRY OF MATERIALS	8.6	14	2021	1				1		
14	BAT	Bates A.M., Paxton W.F., Spurgeon J.M., Park S.D., Sunkara M.K.	Earth-abundant redox couples using durable boron doped diamond electrodes: Beyond vanadium redox couples	APPLIED ENERGY	11.446	2	2021		1			1		
15	BEH	Beharic, J; James, KT; Keynton, RS; O'Toole, MG; Harnett, CK	Impact of microfabrication processing temperatures on the resonant wavelength of gold nanoplates	MATERIALS LETTERS	3	1	2021	1				1		
16	CAL	Calvary CA, Hietsoi O, Hofsommer DT, Brun HC, Costello AM, Mashuta MS, Spurgeon MS, Buchanan RM, Grapperhaus CA	Copper bis(thiosemicarbazone) Complexes with Pendent Polyamines: Effects of Proton Relays and Charged Moieties on Electrocatalytic HER	EUROPEAN JOURNAL OF INORGANIC CHEMISTRY	2.551	7	2021		1			1		
17	CAR	Carnovale, N; McIntyre, ML; Grainger, BM	Fault Detection in Inverter-Based Microgrids Utilizing a Nonlinear Observer	2021 IEEE PES INNOVATIVE SMART GRID TECHNOLOGY EUROPE (ISGT EUROPE 2021)		0	2021	1				1		
18	CHA	Chapagain S, Chandrasekhar PS, McGott D, Bramante RC, van Hest MFAM, Reese MO, Druffel T, Grapperhaus CA	Direct Deposition of Nonaqueous SnO2 Dispersion by Blade Coating on Perovskites for the Scalable Fabrication of p-i-n Perovskite Solar Cells	ACS APPLIED ENERGY MATERIALS	6.959	7	2021		1			1		
19	CHA	Chauhan, R; Kalbfleisch, TS; Potnis, CS; Bansal, M; Linder, MW; Keynton, RS; Gupta, G	Long term storage of miRNA at room and elevated temperatures in a silica sol-gel matrix	RSC ADVANCES	3.9	1	2021	1				1		
20	CHA	Chan, H; Narayanan, B; Cherukara, M; Loeffler, TD; Sternberg, MG; Avarca, A; Sankaranarayanan, SKRS	BLAST: bridging length/timescales via atomistic simulation toolkit	MRS ADVANCES	0.8	4	2021	1				1		

21	CHE	Cherati, DY; Ghasemi-Fare, O	Practical approaches for implementation of energy piles in Iran based on the lessons learned from the developed countries experiences	RENEWABLE & SUSTAINABLE ENERGY REVIEWS	15.9	11	2021	1					1
22	CHE	Cherati, DY; Ghasemi-Fare, O	Unsaturated thermal consolidation around a heat source	COMPUTERS AND GEOTECHNICS	5.3	8	2021	1					1
23	CHE	Cherati, DY; Ghasemi-Fare, O	An Analytical Model for Analyzing Transient Heat Transfer around Geothermal Piles with Time-Dependent Heat Flux	International Foundations Congress and Equipment Expo (IFCEE)		0	2021	1					1
24	CHO	Chowdhury, E; Rahaman, MS; Sathitsuksanoh, N; Grapperhaus, CA; O'Toole, MG	DNA-mediated hierarchical organization of gold nanoprisms into 3D aggregates and their application in surface-enhanced Raman scattering	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	3.3	2	2021	1					1
25	CHR	Christian, N; Basurto, BE; Toussaint, A; Xu, XY; Ainsworth, EA; Busby, PE; Heath, KD	Elevated carbon dioxide reduces a common soybean leaf endophyte	GLOBAL CHANGE BIOLOGY	13.212	3	2021	1					1
26	CRA	Crawford JM, Jasinski JB, Carreon MA	Towards continuous deoxygenation of acetic acid catalyzed by recyclable mono/bi/trimetallic zeolite catalysts	JOURNAL OF CATALYSIS	8.047	2	2021		1				1
27	DEK	Dekhil, O; Shalaby, A; Soliman, A; Mahmoud, A; Kong, MY; Barnes, G; Elmaghraby, A; El-Baz, A	Identifying brain areas correlated with ADOS raw scores by studying altered dynamic functional connectivity patterns	MEDICAL IMAGE ANALYSIS	13.828	2	2021	1					1
28	DER	Derakhshani, M; Momenzadeh, N; Berfield, TA	Analytical and experimental study of a clamped-clamped, bistable buckled beam low-frequency PVDF vibration energy harvester	JOURNAL OF SOUND AND VIBRATION	4.761	22	2021	1					1
29	DON	Dong, WK; Li, WG; Vessalas, K; He, XZ; Sun, ZH; Sheng, DC	Piezoresistivity deterioration of smart graphene nanoplate/cement-based sensors subjected to sulphuric acid attack	COMPOSITES COMMUNICATIONS	8	21	2021	1					1
30	DON	Dong, WK; Guo, YP; Sun, ZH; Tao, Z; Li, WG	Development of piezoresistive cement-based sensor using recycled waste glass cullets coated with carbon nanotubes	JOURNAL OF CLEANER PRODUCTION	11.1	27	2021	1					1
31	DUO	Duong U, Ansari TN, Parmar S, Sharma S, Kozlowski PM, Jasinski JB, Plummer S, Gallou F, Handa S	Nanochannels in Photoactive Polymeric Cu(I) Compatible for Efficient Micellar Catalysis: Sustainable Aerobic Oxidations of Alcohols in Water	ACS SUSTAINABLE CHEMISTRY & ENGINEERING	9.224	8	2021	1					1
32	FAN	Fanah, SJ; Ramezanipour, F	Lithium-ion mobility in layered oxides Li <sub>2</sub> Ca <sub>1.5</sub> Nb <sub>3</sub> O <sub>10</sub> , Li <sub>2</sub> Ca <sub>1.5</sub> Ta <sub>2</sub> Nb <sub>2</sub> O <sub>10</sub> and Li <sub>2</sub> Ca <sub>1.5</sub> Ta <sub>2</sub> NbO <sub>10</sub> , enhanced by supercell formation	JOURNAL OF ENERGY CHEMISTRY	13.1	5	2021	1					1
33	FAN	Fanah, SJ; Ramezanipour, F	Symmetry Effect on the Enhancement of Lithium-Ion Mobility in Layered Oxides Li <sub>2</sub> A(A <sub>2</sub> B <sub>2</sub> )TiO <sub>10</sub> (A = La, Sr, Ca; B = Ti, Ta)	JOURNAL OF PHYSICAL CHEMISTRY C	3.7	5	2021	1					1
34	FTH	Fthenakis ZG, Jaishi M, Narayanan B, Andriotis AN, Menon M	High temperature stability, metallic character and bonding of the Si <sub>2</sub> BN planar structure	JOURNAL OF PHYSICS-CONDENSED MATTER	2.745	2	2021		1				1
35	GHA	Ghahremani AH, Ratnayake D, Sherehiy A, Popa DO, Druffel T	Automated Fabrication of Perovskite Photovoltaics Using Inkjet Printing and Intense Pulse Light Annealing	ENERGY TECHNOLOGY	4.149	6	2021		1				1
36	GHA	Ghanem, SY; Bowling, J; Sun, ZH	Mechanical Properties of Hybrid Synthetic Fiber Reinforced Self-Consolidating Concrete	COMPOSITES PART C: OPEN ACCESS	4.2	4	2021	1					1
37	GHI	Ghithan, JH; Moreno, M; Keynton, RS; O'Toole, MG; Mendes, SB	Adsorption Properties and Electron-transfer Rates of a Redox Probe at Different Interfaces of an Immunoassay Assembled on an Electroactive Photonic Platform	ANALYTICAL SCIENCES	1.6	1	2021	1					1
38	GHI	Ghithan, JH; Noel, JM; Roussel, TJ; McCall, MA; Alphenaar, BW; Mendes, SB	Photobleaching reduction in modulated super-resolution microscopy	MICROSCOPY	1.8	0	2021	1					1
39	GON	Gong, HJ; Rallabandi, V; McIntyre, ML; Hossain, E; Ionel, DM	Peak Reduction and Long Term Load Forecasting for Large Residential Communities Including Smart Homes With Energy Storage	IEEE ACCESS	3.9	21	2021	1					1
40	GOR	Gorky F, Best A, Jasinski J, Allen BJ, Alba-Rubio AC, Carreon ML	Plasma catalytic ammonia synthesis on Ni nanoparticles: The size effect	JOURNAL OF CATALYSIS	8.047	18	2021	1					1
41	GUO	Guo AF, Sun ZH, Satyavolu J	Experimental and finite element analysis on flexural behavior of mortar beams with chemically modified kenaf fibers	CONSTRUCTION AND BUILDING MATERIALS	7.693	8	2021		1				1
42	GUP	Gupta, S; Periasamy, P; Narayanan, B	Defect dynamics in two-dimensional black phosphorus under argon ion irradiation	NANOSCALE	6.7	7	2021	1					1
43	GUP	Gupta, MK; Ding, JX; Osti, NC; Abernathy, DL; Arnold, W; Wang, H; Hood, Z; Delaire, O	Fast Na diffusion and anharmonic phonon dynamics in superionic Na <sub>3</sub> PS <sub>4</sub>	ENERGY & ENVIRONMENTAL SCIENCE	32.5	14	2021	1					1
44	HAL	Halacoglu S, Chertmanova S, Chen Y, Li Y, Rajapakse M, Sumanasekera G, Narayanan B, Wang H	Visualization of Solid-State Synthesis for Chalcogenide Na Superionic Conductors by in-situ Neutron Diffraction	CHEMSUSCHEM	9.14	0	2021		1				1
45	HAW	Hawkins, N; Bhagwat, B; McIntyre, ML	Nonlinear Current-Mode Control of SCIG Wind Turbines	ENERGIES	3.2	2	2021	1					1



71	MIC	Michalska M, Jasinski JB, Pavlovsky J, Zurek-Siworska P, Sikora A, Golebiewski P, Szysiak A, Matejka V, Seidlerova J	Solid state-synthesized lanthanum orthovanadate (LaVO4) Co-doped with Eu as efficient photoluminescent material	JOURNAL OF LUMINESCENCE	4.171	1	2021		1			1
72	MOL	Molas MR, Macewicz L, Wieloszynska A, Jakobczyk P, Wyszomlek A, Bogdanowicz R, Jasinski JB	Photoluminescence as a probe of phosphorene properties	NPJ 2D MATERIALS AND APPLICATIONS	10.516	6	2021		1			1
73	MOM	Momenzadeh, N; Derakhshani, M; Berfield, TA	Influences of post-processing treatments on mechanical properties and beta-phase content in material extrusion additively manufactured polyvinylidene fluoride structures	PROGRESS IN ADDITIVE MANUFACTURING	5.08	2	2021	1				1
74	MUS	Musa MRK, Zhang CY, Rajapakse M, Jasinski JB, Sumanasekera G, Yu M	Li interaction-induced phase transition from black to blue phosphorene	PHYSICAL REVIEW MATERIALS	3.98	7	2021		1			1
75	NAM	Nambo A., Atia V., Vasireddy S., Kumar V., Jasinski J.B., Upadhyayula S., Sunkara M.K.	Nanowire-Based Materials as Coke-Resistant Catalyst Supports for Dry Methane Reforming	CATALYSTS	4.501	2	2021		1			1
76	PAT	Pattadar DK, Nambiar HN, Allen SL, Jasinski JB, Zamborini FP	Effect of Metal Nanoparticle Aggregate Structure on the Thermodynamics of Oxidative Dissolution	LANGMUIR	4.331	3	2021	1				1
77	PAU	Paudel, M; Daniels, B; Arts, AM; Gupta, A; Kalbfleisch, T; Hofsommer, DT; Grapperhaus, CA; Buchanan, RM; Gupta, G	Unravelling the potential of disposable and modifiable pencils as catalyst supports for hydrogen evolution reaction	NEW JOURNAL OF CHEMISTRY	3.3	0	2021	1				1
78	PAU	Paul, AC; Sharma, K; Telfah, H; Miller, TA; Liu, JJ	electronic spectroscopy of the (X)over-tilde(2)A' - (X)over-tilde(2)A' transitions of jet-cooled calcium ethoxide radicals: Vibronic structure of alkaline earth monoalkoxide radicals of C <sub>2v</sub> symmetry	JOURNAL OF CHEMICAL PHYSICS	4.4	2	2021	1				1
79	PAX	Paxton, WF; Rozsa, JL; Brooks, MM; Running, MP; Schultz, DJ; Jasinski, JB; Jung, HJ; Akram, MZ	A scalable approach to topographically mediated antimicrobial surfaces based on diamond	JOURNAL OF NANOBIO TECHNOLOGY	10.2	4	2021		1			1
80	PIS	Pishgar S, Mulvehill MC, Gulati S, Sumanasekera GU, Spurgeon JM	Investigation of n-GaAs Photoanode Corrosion in Acidic Media with Various Thin Ir Cocatalyst Layers	ACS APPLIED ENERGY MATERIALS	6.959	2	2021		1			1
81	PIS	Pishgar S, Gulati S, Strain JM, Liang Y, Mulvehill MC, Spurgeon JM	In Situ Analytical Techniques for the Investigation of Material Stability and Interface Dynamics in Electrocatalytic and Photoelectrochemical Applications	SMALL METHODS	15.367	17	2021		1			1
82	QUC	Qu, C; Alphenaar, B; McNamara, S; Walsh, K	OPTIMIZATION OF ULTRA-HIGH ASPECT RATIO NANOSTRUCTURES FABRICATED USING GLANCING ANGLE DEPOSITION	16th ASME International Manufacturing Science and Engineering Conference (MSEC)		0	2021	1				1
83	QUC	Qu, C; McNamara, S; Walsh, K	Line Seeds With Parabolic Profile For Glancing Angle Deposition	IEEE Southeast Conference (SoutheastCon)		0	2021	1				1
84	QUC	Qu, C; Alphenaar, B; McNamara, S; Walsh, K	OPTIMIZATION OF ULTRA-HIGH ASPECT RATIO NANOSTRUCTURES FABRICATED USING GLANCING ANGLE DEPOSITION	PROCEEDINGS OF THE ASME 2021 16TH INTERNATIONAL MANUFACTURING SCIENCE AND ENGINEERING CONFERENCE (MSEC2021), VOL 2		0	2021	1				1
85	QUC	Qu, C; Alphenaar, B; McNamara, S; Walsh, K	Design of line seeds for glancing angle deposition	JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A	2.9	4	2021	1				1
86	RAH	Rahaman MS, Tulaphol S, Hossain MA, Jasinski JB, Sun N, George A, Simmons BA, Malhotra T, Crocker M, Sathitsuksanoh N	Cooperative Bronsted-Lewis acid sites created by phosphotungstic acid encapsulated metal-organic frameworks for selective glucose conversion to 5-hydroxymethylfurfural	FUEL	8.035	12	2021	1				1
87	RAJ	Rajapakse M, Karki B, Abu UO, Pishgar S, Musa MRK, Riyadh SMS, Yu M, Sumanasekera G, Jasinski JB	Intercalation as a versatile tool for fabrication, property tuning, and phase transitions in 2D materials	NPJ 2D MATERIALS AND APPLICATIONS	10.516	58	2021		1			1
88	RAJ	Rajapakse M, Musa MRK, Vithanage D, Abu UO, Karki B, Yu M, Jasinski JB, Sumanasekera G	Vibrational Properties of Pristine and Lithium-Intercalated Black Phosphorous under High-Pressure	ANNALEN DER PHYSIK	3.047	0	2021		1			1
89	RAM	Ramezani, M; Kim, YH; Sun, ZH	Elastic modulus formulation of cementitious materials incorporating carbon nanotubes: Probabilistic approach	CONSTRUCTION AND BUILDING MATERIALS	7.4	25	2021	1				1
90	RAT	Ratnayake, D; Curry, AT; Qu, C; Usher, J; Walsh, K	CHARACTERIZING THE CONDUCTIVITY OF AEROSOL JET PRINTED SILVER FEATURES ON GLASS	PROCEEDINGS OF THE ASME 2021 16TH INTERNATIONAL MANUFACTURING SCIENCE AND ENGINEERING CONFERENCE (MSEC2021), VOL 2		0	2021	1				1
91	RAT	Ratnayake, D; Curry, A; Walsh, K	Demonstrating a new ink material for aerosol printing conductive traces and custom strain gauges on flexible surfaces	International Conference on Flexible and Printable Sensors and Systems (FLEPS)		5	2021	1				1
92	REN	Ren KM, Druffel T	Copper Electrode on Flexible Substrate by Intense Pulsed Light Sintering of Microsized Copper Particles	IEEE 48TH PHOTOVOLTAIC SPECIALISTS CONFERENCE (PVSC) Book Series IEEE Photovoltaic Specialists Conference	0.61	0	2021		1			1
93	SAR	Saraei, N; Gupta, AJ; Hietsoi, O; Frye, BC; Hofsommer, DT; Sumanasekera, G; Gupta, G; Mashuta, MS; Buchanan, RM; Grapperhaus, CA	Small molecule crystals with 1D water wires modulate electronic properties of surface water networks	APPLIED MATERIALS TODAY	8.663	1	2021	1				1
94	SAT	Satyavolu J, Tadimeti JGD, Thilakarathne R	Xylose production and the associated integration for bio coal production	ENERGY CONVERSION AND MANAGEMENT-X	11.533	2	2021		1			1



119	ZHA	Zhang, Q; Arnold, W; Hood, ZD; Li, Y; DeWees, R; Chi, MF; Chen, ZW; Chen, Y; Wang, H	Li <sub>0.625</sub> Al <sub>0.125</sub> H <sub>0.25</sub> Cl <sub>0.75</sub> O <sub>0.25</sub> Superionic Conductor with Disordered Rock-Salt Structure	ACS APPLIED ENERGY MATERIALS	6.4	1	2021	1					1