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X	Yes	
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		1 year embargo
		2 year embargo
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First Name	Amano	da			Country (ies) of Citizenship	United States	
Degree & I	Dissertat	ion Informatio	1		•		
Title of Dissertat	tion/ Thesis	Metal-Catalyz	zed Formation and	d Transform	ations of Carb	oon-Boron Bonds	
Institution confe degree	erring	Virginia Poly	technic and State	University		Degree awarded (abbreviate; e.g., Ph.D.)	_PhD
College, School,	or Division	Graduate So	hool			Year degree awarded	2016
Department or F	Program	Chemistry				Year manuscript completed	2016
Advisor/Commit	ttee Chair	Webster L. S	Santos				
Committee Men	nber	Paul R. Carl	ier	Committee Member			
Committee Men	nber	Joseph S. N	1erola	Committee Member			
Committee Men	nber	James M. T	anko	Committee Member			
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City	Salish	oury	State/Province	NC	Daytime Phone	1-704-633-9541	
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## Arts, Business, Education, Humanities, and Social Sciences

AREA, ETHNIC, AND GE	NDER	<b>BUSINESS</b>		<b>EDUCATION</b>	
STUDIES		Accounting	0272	Adult education	0516
African American studies	0296	Arts management	0424	Art education	0273
African studies	0293	Banking	0770	Bilingual education	0282
American studies	0323	Business	0310	Business education	0688
Asian American studies	0343	Entrepreneurship	0429	Community college education	0275
Asian studies	0342	Finance	0508	Continuing education	0651
Baltic studies	0361	Management	0454	Curriculum development	0727
Black studies	0325	Marketing	0338	Early childhood education	0518
Canadian studies	0385	Sports management	0430	Education	0515
Caribbean studies	0432			Education finance	0277
Classical studies	0434	<b>COMMUNICATIONS AN</b>	D	Education policy	0458
East European studies	0437			<b>Educational administration</b>	0514
Ethnic studies	0631	INFORMATION SCIENC		<b>Educational evaluation</b>	0443
European studies	0440	Communication	0459	Educational leadership	0449
French Canadian culture	0482	Information science	0723	Educational psychology	0525
Gender studies	0733	Journalism	0391	Educational technology	0710
GLBT studies	0492	Library science	0399	Educational tests & measurements	0288
Hispanic American studies	0737	Mass communication	0708	Elementary education	0524
Holocaust studies	0507	Technical communication	0643	English as a second language	0441
Islamic culture	0512	Web studies	0646	Foreign language instruction	0444
Judaic studies	0312			Gifted education	0445
Latin American studies	0550	FINE AND PERFORMIN	G ARTS	Health education	0680
Middle Eastern studies	0555	Art criticism	0365	Higher education	0745
Native American studies	0740	Art history	0377	Higher education administration	0446
Near Eastern studies	0559	Cinematography	0435	History of education	0520
North African studies	0560	Dance	0378	Home economics education	0278
Pacific Rim studies	0561	Design	0389	Industrial arts education	0521
Regional studies	0604	Film studies	0900	Instructional design	0447
Scandinavian studies	0613	Fine arts	0357	Language arts	0279
Slavic studies	0613	Music	0413	Mathematics education	0280
South African studies	0654	Performing arts	0641	Middle school education	0450
South Asian studies	0638	Theater	0465	Multicultural education	0455
Sub Saharan Africa studies	0639	Theater history	0644	Music education	0522
Women's studies	0453	•		Pedagogy	0456
women's studies	0455			Performing arts education	0457
				Philosophy of education	0998
				Physical education	0523
				Reading instruction	0535
				Religious education	0527
				School counseling	0519
				Science education	0714
				Secondary education	0533
				Social sciences education	0534
				Sociology of education	0340
				Special education	0529
				Teacher education	0530
				Vocational education	0747
				. Journal Caucation	3, 1,

## **HUMANITIES**

## **HISTORY**

African history	0331
American history	0337
Ancient history	0579
Asian history	0332
Black history	0328
Canadian history	0334
European history	0335
History	0578
History of Oceania	0504
History of science	0585
Latin American history	0336
Medieval history	0581
Middle Eastern history	0333
Military history	0722
Modern history	0582
Russian history	0724
World history	0506

## **LANGUAGE & LITERATURE**

Entraction & Entraction	_
African literature	0316
American literature	0591
Ancient languages	0289
Asian literature	0305
Canadian literature	0352
Caribbean literature	0360
Classical literature	0294
Comparative literature	0295
English literature	0593
French Canadian literature	0355
Germanic literature	0311
Icelandic & Scandinavian literature	0362
Language	0679
Latin American literature	0312
Linguistics	0290
Literature	0401
Literature of Oceania	0356
Medieval literature	0297
Middle Eastern literature	0315
Modern language	0291
Modern literature	0298
Rhetoric	0681
Romance literature	0313
Slavic literature	0314

## **PHILOSOPHY AND RELIGION**

Aesthetics	0650
Biblical studies	0321
Canon law	0375
Clerical studies	0319
Comparative religion	0618
Divinity	0376
Epistemology	0393
Ethics	0394
Logic	0395
Metaphysics	0396
Pastoral counseling	0397
Philosophy	0422
Philosophy of Religion	0322
Philosophy of science	0402
Religion	0318
Religious history	0320
Spirituality	0647
Theology	0469

## LAW AND LEGAL STUDIES Alternative dispute resolution 0640 Alternative energy

Alternative dispute resolution	0649
Intellectual property	0513
International law	0616
Law	0398
Patent law	0562

### SOCIAL SCIENCES

Urban planning

SOCIAL SCIENCES	
Archaeology	0324
Area planning and development	0341
Criminology	0627
Cultural anthropology	0326
Demography	0938
Economic history	0509
Economic theory	0511
Economics	0501
Economics, Commerce-Business	0505
Economics, Labor	0510
Folklore	0358
Forensic anthropology	0339
Geography	0366
Individual & family studies	0628
International relations	0601
Labor relations	0629
Military studies	0750
Organization theory	0635
Organizational behavior	0703
Peace studies	0563
Physical anthropology	0327
Political Science	0615
Public administration	0617
Public policy	0630
Recreation and tourism	0814
Social research	0344
Social structure	0700
Social work	0452
Sociolinguistics	0636
Sociology	0626
Transportation planning	0709

0999

Alternative energy	0363
Biographies	0304
Climate change	0404
Cultural resources management	0436
Energy	0791
Food science	0359
Home economics	0386
Information technology	0489
Multimedia	0558
Museum studies	0730
Sustainability	0640
Textile research	0994
Wood sciences	0746

## Behavioral, Natural, and Physical Sciences

<u>AGRICULTURE</u>		ECOSYSTEM SCIENCES		<b>GEOSCIENCES</b>	
Agriculture	0473	Ecology	0329	Aeronomy	0367
Agriculture economics	0503	Macroecology	0420	Atmospheric chemistry	0371
Agronomy	0285	Paleoecology	0426	Atmospheric sciences	0725
Animal diseases	0476			Biogeochemistry	0425
Animal sciences	0475	<b>ENGINEERING</b>		Biological oceanography	0416
Fisheries and aquatic sciences	0792	Aerospace engineering	0538	Chemical oceanography	0403
Forestry	0478	Artificial intelligence	0800	Continental dynamics	0406
Horticulture	0471	Automotive engineering	0540	Geobiology	0483
Plant pathology	0480	Biomedical engineering	0541	Geochemistry	0996
Plant sciences	0479	Chemical engineering	0542	Geographic information science	
Range management	0777	9 9	0543	and geodesy	0370
Soil sciences	0481	Civil engineering	0464	Geology	0372
Urban forestry	0281	Computer engineering		Geomorphology	0484
Wildlife management	0286	Computer science	0984	Geophysics	0373
9		Electrical engineering	0544	Hydrologic sciences	0388
ADCHITECTUDE		Engineering	0537	Marine geology	0556
<u>ARCHITECTURE</u>		Geological engineering	0466	Meteorology	0557
Architecture	0729	Geophysical engineering	0467	Mineralogy	0411
Architectural engineering	0462	Geotechnology	0428	Paleoclimate science	0653
Landscape architecture	0390	Industrial engineering	0546	Paleontology	0418
		Mechanical engineering	0548	Petroleum geology	0583
<b>BEHAVIORAL SCIENCES</b>		Mining engineering	0551	• •	
Animal behavior	0602	Naval engineering	0468	Petrology	0584
Behavioral sciences	0384	Nanotechnology	0652	Physical geography	0368
Clinical psychology	0622	Nuclear engineering	0552	Physical oceanography	0415
		Ocean engineering	0547	Planetology	0590
Cognitive psychology	0633	Operations research	0796	Plate tectonics	0592
Counseling psychology	0603	Packaging	0549	Remote sensing	0799
Developmental psychology	0620	Petroleum engineering	0765	Sedimentary geology	0594
Experimental psychology	0623	Plastics	0795		
Occupational psychology	0624	Robotics	0771	<b>HEALTH AND MEDICAL</b>	
Personality psychology	0625	System science	0790		
Physiological psychology	0989	Materials Science	0794	<u>SCIENCES</u>	0.402
Psychobiology	0349	iviaterials science	0734	Aging	0493
Psychology	0621			Alternative medicine	0496
Quantitative psychology and		ENVIRONMENTAL SCIEN	<u>ICES</u>	Audiology	0300
psychometrics	0632	Conservation biology	0408	Dentistry	0567
Social psychology	0451	Environmental economics	0438	Epidemiology	0766
		Environmental education	0442	Gerontology	0351
<b>BIOLOGICAL SCIENCES</b>		Environmental engineering	0775	Health care management	0769
Biochemistry	0487	Environmental geology	0407	Health sciences	0566
Bioinformatics	0715	Environmental health	0470	Immunology	0982
		Environmental justice	0619	Kinesiology	0575
Biology	0306	Environmental law	0439	Medical ethics	0497
Biomechanics	0648	Environmental management	0474	Medical imaging and radiology	0574
Biophysics	0786	Environmental philosophy	0392	Medicine	0564
Biostatistics	0308	Environmental science	0768	Mental health	0347
Cellular biology	0379	Environmental studies	0477	Nursing	0569
Developmental biology	0758	Land use planning	0536	Nutrition	0570
Endocrinology	0409	Natural resource management	0528	Obstetrics and gynecology	0380
Entomology	0353	Water resources management	0595	Occupational health	0354
Evolution & development	0412	Wildlife conservation	0284	Occupational therapy	0498
Genetics	0369	whalle conservation	0204	Oncology	0992
Histology	0414			Ophthalmology	0381
Limnology	0793			Osteopathic medicine	0499
Microbiology	0410			Pathology	0571
Molecular biology	0307			Pharmaceutical sciences	0571
Morphology	0287			Pharmacology	0419
Neurosciences	0317			<i>5,</i>	
Parasitology	0718			Physical therapy	0382
Physiology	0719			Public health	0573
Plant biology	0309			Public health occupations	05.00
Systematic biology	0423			education	0500
Virology	0720			Speech therapy	0460
Zoology	0,20			Surgery	0576
	0472			· ,	
<i>.</i>	0472			Toxicology Veterinary medicine	0383 0778

# MATHEMATICAL AND PHYSICAL SCIENCES

Acoustics 0986 0486 Analytical chemistry Applied mathematics 0364 Astronomy 0606 0596 Astrophysics 0748 Atomic physics Chemistry 0485 Condensed matter physics 0611 Electromagnetics 0607 High temperature physics 0597 Inorganic chemistry 0488 Low temperature physics 0598 Materials science 0794 Mathematics 0405 Mechanics 0346 Molecular chemistry 0431 Molecular physics 0609 Nanoscience 0565 0738 Nuclear chemistry 0756 Nuclear physics Optics 0752 Organic chemistry 0490 Particle physics 0798 Physical chemistry 0494 Physics 0605 Plasma physics 0759 Polymer chemistry 0495 Quantum physics 0599 Statistics 0463 Theoretical mathematics 0642 Theoretical physics 0753