



## **ATEET DUTT**

### **Datos Generales**

**Nombre:** ATEET DUTT

**Máximo nivel de estudios:** DOCTORADO

**Antigüedad académica en la UNAM:** 6 años

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### **Nombramientos**

**Vigente:** INVESTIGADOR TITULAR A TC Definitivo  
Instituto de Investigaciones en Materiales  
Desde 01-08-2024

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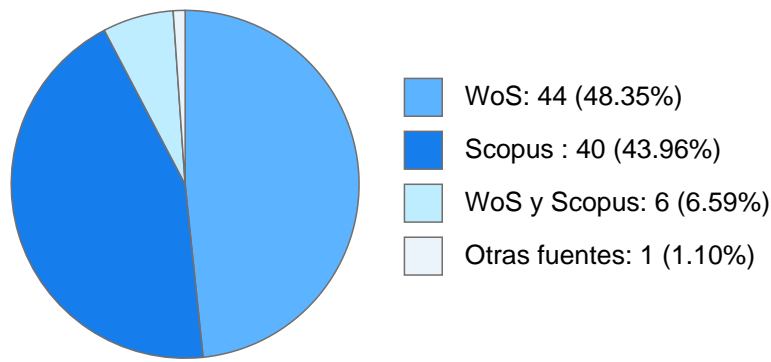
### **Estímulos, programas, premios y reconocimientos**

SNI II 2024  
SNI I 2019 - 2023  
PRIDE C 2023 - 2024  
EQUIVALENCIA PRIDE B 2018 - 2023

## ATEET DUTT

### DOCUMENTOS EN REVISTAS

#### Histórico de Documentos



#	Título	Autores	Revista	Año
1	Advancing foodborne pathogen detection: a review of traditional and innovative optical and electrochemical biosensing approaches	ZEUS SALDAÑA AHUACTZI ATEET DUTT Francisco Javier Gomez-Montano et al.	MICROCHIMICA ACTA	2025
2	Translational paradigm of MXene nanocomposites: biophysical advancements to modern applications	ATEET DUTT Sriparna De Shaikh Sheeran Naser et al.	Materials Advances	2025
3	High-performance acetone detection via one-dimensional sulfur-doped ZnO nanostructures	CARLOS DAVID RAMOS VILCHIS GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	SENSORS AND ACTUATORS A-PHYSICAL	2025
4	Synergistic Assembly of 1D ZnO and Anti-CYFRA 21-1: A Physicochemical Approach to Optical Biosensing	SANDRA ELIZABETH RODIL POSADA ANDRES NAVARRETE CASTRO GUILLERMO SANTANA RODRIGUEZ et al.	Bme Frontiers	2024
5	Novel synthesis of 1-D silicon nanowires grown on pyramidal black silicon substrates and intense visible emission	PEDRO ROQUERO TEJEDA JOSUE ESAU ROMERO IBARRA CARLOS DAVID RAMOS VILCHIS et al.	MATERIALS LETTERS	2024
6	Real-Time Nanoscale Bacterial Detection Utilizing a 1D ZnO Optical Nanobiosensor	ANDRES GALDAMEZ MARTINEZ JOSUE ESAU ROMERO IBARRA CARLOS DAVID RAMOS VILCHIS et al.	Advanced Nanobiomed Research	2024

**Reporte individual**

**ATEET DUTT**

7	The posterity of Zebrafish in paradigm of in vivo molecular toxicological profiling	ATEET DUTT Verma S.K. Nandi A. et al.	BIOMEDICINE & PHARMACOTHERAPY	2024
8	Catalyzing innovation: Exploring iron oxide nanoparticles - Origins, advancements, and future application horizons	ATEET DUTT ANDRES NAVARRETE CASTRO Kumar P. et al.	COORDINATION CHEMISTRY REVIEWS	2024
9	Sputtering Deposition of ZnO Thin Films for Photocatalytic Hydrogen Production: Perspectives on Upscaling	ANDRES GALDAMEZ MARTINEZ CARLOS DAVID RAMOS VILCHIS GUILLERMO SANTANA RODRIGUEZ et al.	Nanofabrication	2024
10	Anticipating Challenges in Optical Nanobiosensors for Global Detection of Respiratory Viruses and Emerging Threats	ANDRES GALDAMEZ MARTINEZ ATEET DUTT Martínez Tolibia S.E. et al.	Ecs Sensors Plus	2023
11	Controlling Green-to-Blue Luminescence in Multidimensional ZnO Interfaces: Mechanistic Insights	ANDRES GALDAMEZ MARTINEZ ERIKA ARMENTA JAIME GUILLERMO SANTANA RODRIGUEZ et al.	Acs Applied Optical Materials	2023
12	Interaction Study of Anti-E. coli Immobilization on 1DZnO at Nanoscale for Optical Biosensing Application	ANDRES GALDAMEZ MARTINEZ GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	ADVANCED MATERIALS INTERFACES	2023
13	Structural and optical characterisation of silanised Dy-doped-Gd <sub>2</sub> O <sub>3</sub> NPs	ERIKA ARMENTA JAIME KARLA PATRICIA SALAS MARTIN ATEET DUTT et al.	PHYSICAL CHEMISTRY CHEMICAL PHYSICS	2023
14	ZnO-based nanomaterials approach for photocatalytic and sensing applications: recent progress and trends	ANDRES GALDAMEZ MARTINEZ PAULINA RAQUEL MARTINEZ ALANIS GUILLERMO SANTANA RODRIGUEZ et al.	Materials Advances	2023
15	Silicon Compound Nanomaterials: Exploring Emission Mechanisms and Photobiological Applications	ATEET DUTT Rafael Antonio Salinas Shirley E. Martinez-Tolibia et al.	Advanced Photonics Research	2023
16	Preparation of Hybrid Films Based in Aluminum 8-Hydroxyquinoline as Organic Semiconductor for Photoconductor Applications	CITLALLI ADRIANA RIOS GONZALEZ ROBERTO RENE SALCEDO PINTOS ATEET DUTT et al.	SENSORS	2023
17	Interaction of virus-like particles and nanoparticles with inorganic materials for biosensing: An exciting approach	ANDRES GALDAMEZ MARTINEZ ATEET DUTT Jaime E.A. et al.	MATERIALS LETTERS	2022
18	Molecularly imprinted polymer-silica nanocomposite based potentiometric sensor for early prostate cancer detection	ATEET DUTT Fernández-Puig S. Lazo-Fraga A.R. et al.	MATERIALS LETTERS	2022

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19	Zinc associated nanomaterials and their intervention in emerging respiratory viruses: Journey to the field of biomedicine and biomaterials	ERIKA ARMENTA JAIME ANDRES GALDAMEZ MARTINEZ SILVIA ELENA CASTILLO BLUM et al.	COORDINATION CHEMISTRY REVIEWS	2022
20	Molecular nanoinformatics approach assessing the biocompatibility of biogenic silver nanoparticles with channelized intrinsic steatosis and apoptosis	ATEET DUTT Pritam Kumar Panda Puja Kumari et al.	GREEN CHEMISTRY	2022
21	The role of reductive and oxidative annealing processes in the phase composition and electrical conductivity of molybdenum oxides	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ Domínguez A. et al.	MATERIALS LETTERS	2022
22	Phage delivered CRISPR-Cas system to combat multidrug-resistant pathogens in gut microbiome	ATEET DUTT Arijit Nath Rahul Bhattacharjee et al.	BIOMEDICINE & PHARMACOTHE RAPY	2022
23	Theragnostic application of nanoparticle and CRISPR against food-borne multi-drug resistant pathogens	ATEET DUTT Rahul Bhattacharjee Aditya Nandi et al.	Materials Today Bio	2022
24	Bio-acceptable 0D and 1D ZnO nanostructures for cancer diagnostics and treatment	ANDRES GALDAMEZ MARTINEZ JORGE GUTIERREZ FLORES GUILLERMO SANTANA RODRIGUEZ et al.	MATERIALS TODAY	2021
25	Absorption and emission of porous silicon based on quantum dots models by TD-DFT: Experimental and theoretical approach	MARTHA LUISA PEREZ LOPEZ MARIA BEATRIZ DE LA MORA MOJICA GUILLERMO SANTANA RODRIGUEZ et al.	MATERIALS LETTERS	2021
26	ZnO Nanowires/N719 Dye With Different Aspect Ratio as a Possible Photoelectrode for Dye-Sensitized Solar Cells	KARINA PORTILLO CORTEZ ANA MARIA MARTINEZ VAZQUEZ MONSERRAT BIZARRO SORDO et al.	Frontiers in Chemistry	2021
27	Functionalization of 3-aminopropyltrimethoxysilane Self-Assembled Monolayers on ZnO/Au nanowires: Role of the Seed layer	ANDRES GALDAMEZ MARTINEZ ATEET DUTT Malagón G J.F. et al.	MATERIALS LETTERS	2021
28	The influence of deposition time on the photoluminescent properties of SiOxCy thin films obtained by Cat-CVD from monomethyl silane precursor	ATEET DUTT Jain M. Ramos-Serrano J.R. et al.	MATERIALS LETTERS	2021
29	One dimensional Au-ZnO hybrid nanostructures based CO2 detection: Growth mechanism and role of the seed layer on sensing performance	ANDRES GALDAMEZ MARTINEZ GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	SENSORS AND ACTUATORS B-CHEMICAL	2021

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30	An experimental method for extracting the electrical parameters from measurements of Solar Cell arrays using the single diode model.	CARLOS ALVAREZ MACIAS GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	IEEE Photovoltaic Specialists Conference	2020
31	Two-step process for the growth of uniform core-shell Si nanowires using chlorinated precursors	JOSE GONZALO GONZALEZ REYES JOSUE ESAU ROMERO IBARRA ATEET DUTT et al.	MATERIALS LETTERS	2020
32	Photoluminescence of zno nanowires: A review	ANDRES GALDAMEZ MARTINEZ GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	NANOMATERIAL S	2020
33	Photocatalytic hydrogen production performance of 1-D ZnO nanostructures: Role of structural properties	ANDRES GALDAMEZ MARTINEZ GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	INTERNATIONAL JOURNAL OF HYDROGEN ENERGY	2020
34	Very low-temperature growth of silicon thin films using chlorinated precursors and optical properties	JAVITT LINARES IBARRA ALEJANDRA LOPEZ SUAREZ ATEET DUTT et al.	MATERIALS SCIENCE IN SEMICONDUCT OR PROCESSING	2020
35	N719 Derivatives for Application in a Dye-Sensitized Solar Cell (DSSC): A Theoretical Study	KARINA PORTILLO CORTEZ ATEET DUTT GUILLERMO SANTANA RODRIGUEZ et al.	JOURNAL OF PHYSICAL CHEMISTRY A	2019
36	Luminescence study of Si/SiC nano-particles embedded in SiO x C y matrix deposited using O-Cat-CVD	CARLOS DAVID RAMOS VILCHIS GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	PHYSICA E-LOW-DIMENSI ONAL SYSTEMS & NANOSTRUCTUR ES	2019
37	White electroluminescence from SiNx thin films by a PECVD equipment using dichlorosilane precursor and study of emission mechanism	ASAEI ORTIZ SANTOS GUILLERMO SANTANA RODRIGUEZ ATEET DUTT et al.	MATERIALS TECHNOLOGY	2019
38	Structural and optical properties of nc-Si in SiOxNy matrix deposited by laser ablation for optoelectronic applications	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ Enrique Camps et al.	MATERIALS SCIENCE IN SEMICONDUCT OR PROCESSING	2019
39	Luminescent silicon oxycarbide thin films obtained with monomethyl-silane by hot-wire chemical vapor deposition	ATEET DUTT J. R. Ramos-Serrano Y. Matsumoto et al.	JOURNAL OF ALLOYS AND COMPOUNDS	2019
40	Study of optoelectronic properties of thin MoOx films for application in silicon solar cells	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ Dominguez A. et al.	IEEE Photovoltaic Specialists Conference	2019

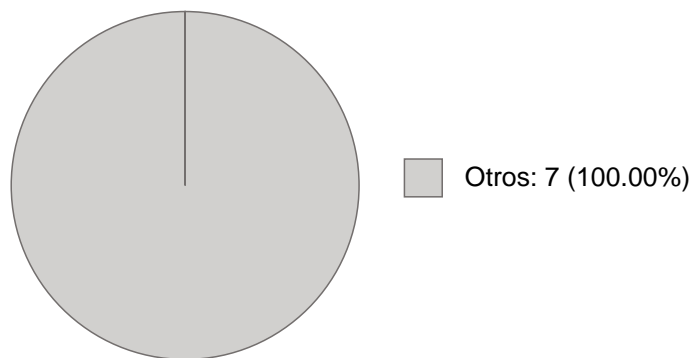
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41	Performance improvement of black silicon solar cells by a new passivation scheme	AARON SANCHEZ JUAREZ JOSUE ESAU ROMERO IBARRA ATEET DUTT et al.	IEEE Photovoltaic Specialists Conference	2019
42	A new passivation scheme for the performance enhancement of black silicon solar cells	CARLOS ALVAREZ MACIAS AARON SANCHEZ JUAREZ ATEET DUTT et al.	Materials Today Communications	2019
43	Porous silicon infiltration with advanced materials for their use in third generation of solar cells	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ P. E. Jimenez-Cruz et al.	World Conference On Photovoltaic Energy Conversion Wcpec	2018
44	SiNx thin films with appropriate antireflection and shift-conversion properties for silicon solar cells	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ E. Mon-Perez et al.	IEEE Photovoltaic Specialists Conference	2017
45	Molybdenum oxide thin films for heterojunction solar cells	ATEET DUTT GUILLERMO SANTANA RODRIGUEZ A. Dominguez et al.	IEEE Photovoltaic Specialists Conference	2017

## ATEET DUTT

### LIBROS Y CAPITULOS CON ISBN

#### Obras con registro ISBN



#	Título	Autores	Alcance	Año	ISBN
1	Effect of argon plasma treatment on electronic properties of doped hydrogenated Silicon thin films for photovoltaic applications	ATEET DUTT Manmohan Jain Sucheta Juneja et al.	Proceedings Paper	2021	9781665400299
2	Photoluminescence properties of SiOxCy-films deposited under argon atmosphere and Si-based organometallic precursor by O-Cat-CVD	ANDRES GALDAMEZ MARTINEZ ATEET DUTT Manmohan Jain et al.	Proceedings Paper	2021	9781665400299
3	Photoluminescence properties of thin-film SiOxCy deposited by O-Cat CVD technique using MMS and TEOS	ATEET DUTT Jain M. Ramos-Serrano J.R. et al.	Conference Paper	2020	9781728189871
4	Anticipated graded emitter design for the efficient type HIT solar cells	LUIS ANDRES GOMEZ GONZALEZ BETSABEE MAREL MONROY PELAEZ ATEET DUTT et al.	Conference Paper	2018	9781509056057
5	The role of crystalline fraction on the photoconductive response in polymorphous silicon materials for thin films solar cells	BETSABEE MAREL MONROY PELAEZ ATEET DUTT GUILLERMO SANTANA RODRIGUEZ et al.	Conference Paper	2018	9781509056057
6	Porous silicon infiltration with advanced materials for their use in third generation of solar cells	ATEET DUTT BRAULIO VALLES DE LA MORA GUILLERMO SANTANA RODRIGUEZ et al.	Conference Paper	2018	9781538685297



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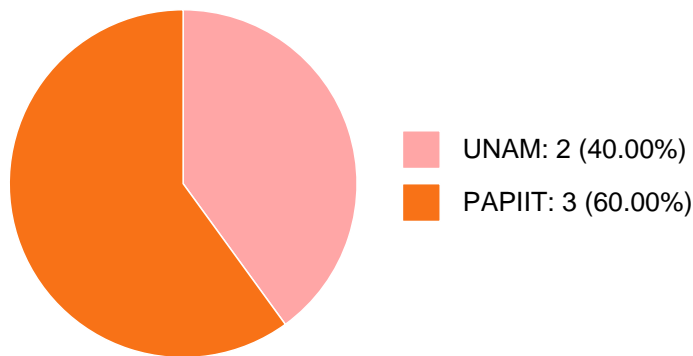
- 7 Effect of chamber pressure on red emission from silicon thin films deposited by means of hot-wire CVD ATEET DUTT Matsumoto Y. Ortega M. et al. Conference Paper 2015 9781467378390



## ATEET DUTT

### PARTICIPACIÓN EN PROYECTOS

#### Histórico de participación en proyectos

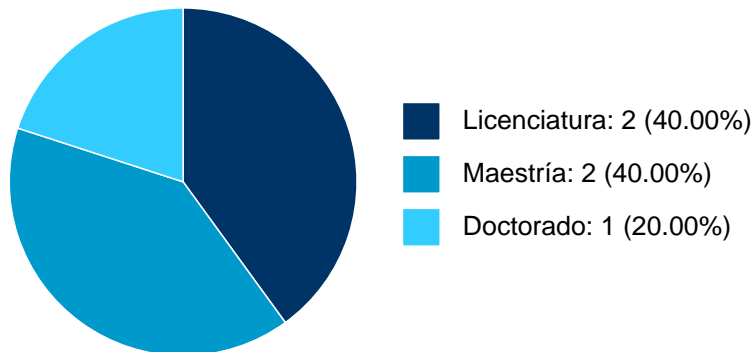


#	Nombre	Participantes	Fuente	Fecha inicio	Fecha fin
1	Desarrollo y caracterización de nanoalambres de ZNO para sus aplicaciones como biosensores.	ATEET DUTT	Recursos PAPIIT	01-01-2019	31-12-2020
2	Nanoestructuras para aplicaciones en salud y energía.	ATEET DUTT	Presupuesto de la UNAM asignado a la Dependencia	01-01-2019	31-12-2021
3	Producción fotocatalítica de hidrogeno y biosensado mediante plataformas de nanoalambres de ZNO.	ATEET DUTT	Recursos PAPIIT	01-01-2021	31-12-2022
4	Nanoestructuras para aplicaciones en salud y energía.	ATEET DUTT	Presupuesto de la UNAM asignado a la Dependencia	01-01-2022	31-12-2024
5	Nanoalambres de ZnO y sus aplicaciones en salud y energía: detección de microorganismos patógenos y producción de hidrógeno	ATEET DUTT	Recursos PAPIIT	01-01-2023	31-12-2024

## ATEET DUTT

### PARTICIPACIÓN EN TESIS

#### Histórico de Colaboraciones en Tesis

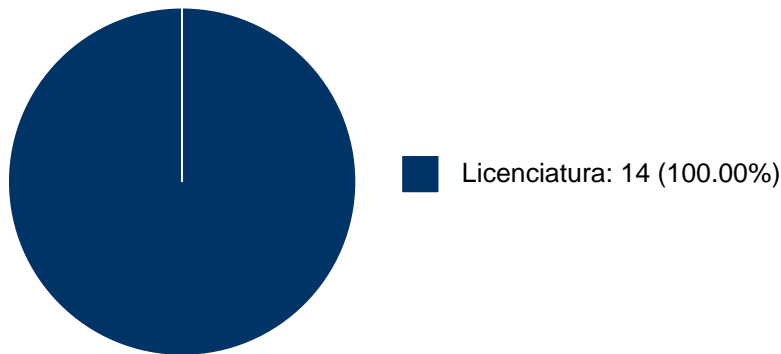


#	Título del documento	Tipo de Tesis	Sinodales	Autores	Entidad	Año
1	Estudio del mecanismo de crecimiento VLS de nanolambres de óxido de zinc (ZnO)	Tesis de Licenciatura	ATEET DUTT,	Brito Díaz, Airam Jazmín,	Instituto de Investigaciones en Materiales,	2023
2	One-dimensional ZnO nanostructures for photocatalytic and sensing applications	Tesis de Doctorado	ATEET DUTT,	CITLALI SANCHEZ AKE, GUILLERMO SANTANA RODRIGUEZ, et al.	Instituto de Ciencias Aplicadas y Tecnología, Instituto de Investigaciones en Materiales,	2023
3	Síntesis, estudio estructural y funcionalización de estructuras unidimensionales de óxido de zinc	Tesis de Maestría	ATEET DUTT,	Malagón García, José Francisco,	Instituto de Investigaciones en Materiales,	2022
4	Síntesis, caracterización y aplicaciones de nanolambres de ZnO	Tesis de Maestría	ATEET DUTT,	Galdámez Martínez, Andrés,	Instituto de Investigaciones en Materiales,	2019
5	Estudio de la fotoluminiscencia del silicio poroso bajo tratamientos en PECVD con NH <sub>3</sub>	Tesis de Licenciatura	ATEET DUTT,	Pinzón Ramírez, Pedro Humberto,		2018

## ATEET DUTT

### DOCENCIA IMPARTIDA

#### Histórico de docencia



#	Nivel titulación	Asignatura	Entidad	Alumnos	Semestre
1	Licenciatura	NANOTECNOLOGIA Y NANOMATERIALES	Facultad de Química	3	2024-2
2	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	10	2024-2
3	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	12	2024-1
4	Licenciatura	NANOTECNOLOGIA Y NANOMATERIALES	Facultad de Química	16	2023-2
5	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	12	2023-2
6	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	4	2023-1
7	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	11	2022-2
8	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	7	2022-1
9	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	8	2021-2
10	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	13	2021-1
11	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	6	2020-2
12	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	6	2020-1
13	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	4	2019-2
14	Licenciatura	TEM.SELEC.DE FISICA D MATERIAL I	Facultad de Ciencias	8	2019-1



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**PATENTES**

**No se encuentran registros en la base de datos de patentes asociados a:**

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### FUENTES DE INFORMACIÓN

#### Internos

#	Información	Fuente	Sistema	Periodo
1	Grupos ordinarios y resumen de historias académicas	DGAE	SIAE	2008-2025
2	Nombramientos, datos generales, estímulos, premios y reconocimientos	DGAPA	RUPA	2008-2025
3	Producción Académica	CH	Humanindex	2008-2021
4	Producción Académica	CIC	SCIC	2000-2017
5	Proyectos	DGPO	SISEPRO	2018-2022
6	Tesis	DGB	TESIUNAM	2008-2025
7	Tutorías en Posgrado	CGEP	SIIPosgrado	2008-2021

#### Externos

#	Información	Fuente	Sistema	Periodo
8	Documentos Indexados	Elsevier	Scopus	2008-2025
9	Documentos Indexados	Thomson Reuters	WoS	2008-2025
10	Obras con registro ISBN	INDAUTOR	Agencia ISBN	2008-2025
11	Patentes	IMPI	SIGA	2008-2024