



## **ALEJANDRA AGUAYO RIOS**

### **Datos Generales**

**Nombre:** ALEJANDRA AGUAYO RIOS

**Máximo nivel de estudios:** MAESTRÍA

**Antigüedad académica en la UNAM:** 36 años

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### **Nombramientos**

**Vigente:** TECNICO ACADEMICO TITULAR B TC Definitivo  
Instituto de Geofísica  
Desde 16-03-2010

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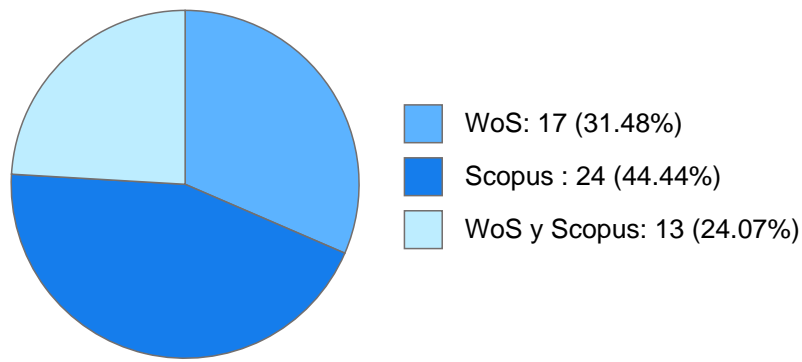
### **Estímulos, programas, premios y reconocimientos**

PRIDE C - 2024  
ESPECIALES ANTONIO CARRILLO FLORES 2015 - 2016  
ESPECIALES JULIO MONGES CALDERA 2015 - 2016  
ESPECIALES JULIO MONGES CALDERA 2014 - 2015  
ESPECIALES JULIO MONGES CALDERA 2013 - 2014

**ALEJANDRA AGUAYO RIOS**

**DOCUMENTOS EN REVISTAS**

**Histórico de Documentos**



| # | Título  | Autores  | Revista   | Año  |
|---|---|--|---|------|
| 1 | An identification of arsenic retention mechanisms in column filtration systems packed with limestone  | ANTONIO SALVADOR SOSA ISLAS<br>MARIA AURORA ARMIENTA<br>HERNANDEZ RENE LOREDO PORTALES<br>et al. | APPLIED<br>GEOCHEMISTRY                                 | 2023 |
| 2 | Edaphic properties as pieces of evidence of tailings deposit on soils   | MARIA AURORA ARMIENTA<br>HERNANDEZ OLIVIA CRUZ RONQUILLO<br>ALEJANDRA AGUAYO RIOS et al.         | ENVIRONMENTAL<br>GEOCHEMISTRY<br>AND HEALTH             | 2023 |
| 3 | Evaluation of the interactions of arsenic (As), boron (B), and lead (Pb) from geothermal production wells with agricultural soils             | MARIA AURORA ARMIENTA<br>HERNANDEZ ALEJANDRA AGUAYO<br>RIOS OLIVIA CRUZ RONQUILLO et al.         | ECOTOXICOLOG<br>Y AND<br>ENVIRONMENTAL<br>SAFETY        | 2021 |
| 4 | Evaluation of the influence of main groundwater ions on arsenic removal by limestones through column experiments                              | MARIA AURORA ARMIENTA<br>HERNANDEZ ALEJANDRA AGUAYO<br>RIOS OLIVIA CRUZ RONQUILLO et al.         | SCIENCE OF THE<br>TOTAL<br>ENVIRONMENT                  | 2020 |
| 5 | Evaluation of Fe, Zn, Pb, Cd and As mobility from tailings by sequential extraction and experiments under imposed physico-chemical conditions | MARIA AURORA ARMIENTA<br>HERNANDEZ OLIVIA CRUZ RONQUILLO<br>ALEJANDRA AGUAYO RIOS et al.         | GEOCHEMISTRY<br>-EXPLORATION<br>ENVIRONMENT<br>ANALYSIS | 2019 |

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|----|---|---|---|------|
| 6  | Measurement of the density inside a supersonic jet using the background oriented schlieren (BOS) technique  | DAVID PORTA ZEPEDA CARLOS<br>ECHEVERRIA ARJONILLA ALEJANDRA<br>AGUAYO RIOS et al.                           | Environmental<br>Science and<br>Engineering-En<br>vironmental<br>Engineering  | 2016 |
| 7  | Groundwater quality and geothermal energy. The case of Cerro Prieto Geothermal Field, México  | MARIA AURORA ARMIENTA<br>HERNANDEZ JOSE ROGELIO<br>RODRIGUEZ TALAVERA NORA ELIA<br>CENICEROS BOMBELA et al. | RENEWABLE<br>ENERGY   | 2014 |
| 8  | Hydrogeochemical surveillance at El Chichon volcano crater lake, Chiapas, Mexico  | MARIA AURORA ARMIENTA<br>HERNANDEZ SERVANDO DE LA CRUZ<br>REYNA NORA ELIA CENICEROS<br>BOMBELA et al.       | JOURNAL OF<br>VOLCANOLOGY<br>AND<br>GEOTHERMAL<br>RESEARCH  | 2014 |
| 9  | Treatment of mining acidic leachates with indigenous limestone, Zimapan Mexico  | I. Labastida MARIA AURORA<br>ARMIENTA HERNANDEZ ALEJANDRA<br>AGUAYO RIOS et al.                             | JOURNAL OF<br>HAZARDOUS<br>MATERIALS  | 2013 |
| 10 | Geochemical processes and mobilization of toxic metals and metalloids in an As-rich base metal waste pile in Zimapan, Central Mexico                            | MARIA AURORA ARMIENTA<br>HERNANDEZ MARIA GUADALUPE<br>VILLASEÑOR CABRAL OLIVIA CRUZ<br>RONQUILLO et al.     | APPLIED<br>GEOCHEMISTRY   | 2012 |
| 11 | Fluoride in ash leachates: environmental implications at Popocatepetl volcano, central Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ SERVANDO DE LA CRUZ<br>REYNA OLIVIA CRUZ RONQUILLO et<br>al.             | NATURAL<br>HAZARDS AND<br>EARTH SYSTEM<br>SCIENCES  | 2011 |
| 12 | Chemistry of ash-leachates to monitor volcanic activity: An application to Popocatepetl volcano, central Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ SERVANDO DE LA CRUZ<br>REYNA ANA MARIA SOLER ARECHALDE<br>et al.         | APPLIED<br>GEOCHEMISTRY   | 2010 |
| 13 | Evaluation of the potential release of toxic metals and metalloids from tailings at an historical mining site of Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ OLIVIA CRUZ RONQUILLO<br>NORA ELIA CENICEROS BOMBELA et<br>al.           | Water-Rock<br>Interaction -<br>Proceedings Of<br>The 13th<br>International<br>Conference On<br>Water-Rock<br>Interaction,<br>Wri-13 | 2010 |
| 14 | Geochemical distribution of arsenic, cadmium, lead and zinc in river sediments affected by tailings in Zimapan, a historical polymetallic mining zone of Mexico | Erik Espinosa MARIA AURORA<br>ARMIENTA HERNANDEZ OLIVIA CRUZ<br>RONQUILLO et al.                            | ENVIRON GEOL  | 2009 |

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|----|--|---|--|------|
| 15 | Hydrogeochemical indicators of the Popocatepetl volcano activity   | MARIA AURORA ARMIENTA<br>HERNANDEZ SERVANDO DE LA CRUZ<br>REYNA NORA ELIA CENICEROS<br>BOMBELA et al.   | JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH         | 2008 |
| 16 | Water chemistry of lakes related to active and inactive Mexican volcanoes  | MARIA AURORA ARMIENTA<br>HERNANDEZ GLORIA VILA CLARA<br>FATJO SERVANDO DE LA CRUZ REYNA<br>et al.       | JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH         | 2008 |
| 17 | Origin and fate of arsenic in a historic mining area of Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ FRANCISCO MORALES<br>LEAL ALEJANDRA AGUAYO RIOS et al.               | Trace Metals and other Contaminants in the Environment | 2007 |
| 18 | Isotopic, chemical and dissolved gas constraints on spring water from Popocatepetl volcano (Mexico): Evidence of gas-water interaction between magmatic component and shallow fluids | ANA LILLIAN MARTIN DEL POZZO<br>ALEJANDRA AGUAYO RIOS<br>Inguaggiato S. et al.                          | JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH         | 2005 |
| 19 | Environmental behaviour of metals from tailings in shallow rivers: Taxco, central Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ MARIA GUADALUPE<br>VILLASEÑOR CABRAL OLIVIA CRUZ<br>RONQUILLO et al. | T I MIN METALL B                                       | 2004 |
| 20 | Influence of volcanic activity on spring water chemistry at Popocatepetl Volcano, Mexico   | ANA LILLIAN MARTIN DEL POZZO JOSE<br>FERNANDO ACEVES QUESADA<br>ALEJANDRA AGUAYO RIOS et al.            | CHEMICAL GEOLOGY                                       | 2002 |
| 21 | Chromium in a tannery wastewater irrigated area, León Valley, Mexico   | MARIA AURORA ARMIENTA<br>HERNANDEZ OFELIA MORTON BERMEA<br>RAMIRO RODRIGUEZ CASTILLO et al.             | BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY | 2001 |
| 22 | Health risk and sources of arsenic in the potable water of a mining area   | OFELIA MORTON BERMEA OLIVIA<br>CRUZ RONQUILLO ALEJANDRA<br>AGUAYO RIOS et al.                           | IAHS Publication                                       | 1999 |
| 23 | Arsenic contamination of groundwater at Zimapán, Mexico  | ALEJANDRA AGUAYO RIOS OLIVIA<br>CRUZ RONQUILLO Armienta M.A. et al.                                     | HYDROGEOLOGY JOURNAL                                   | 1997 |



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



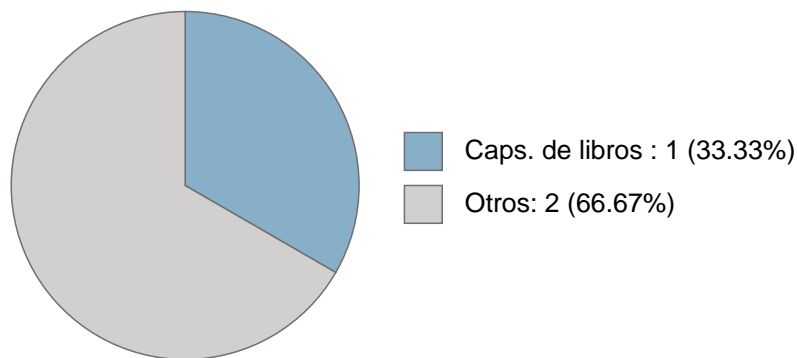
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|----|--|--|--|------|
| 24 | Groundwater pollution with chromium in leon valley, Mexico | MARIA AURORA ARMIENTA<br>HERNANDEZ ALAIN MARCEL QUERE<br>THORENT NORA ELIA CENICEROS<br>BOMBELA et al. | INTERNATIONAL<br>JOURNAL OF<br>ENVIRONMENTA<br>L ANALYTICAL<br>CHEMISTRY | 1993 |
|----|--|--|--|------|

**ALEJANDRA AGUAYO RIOS**

**LIBROS Y CAPITULOS CON ISBN**

**Obras con registro ISBN**

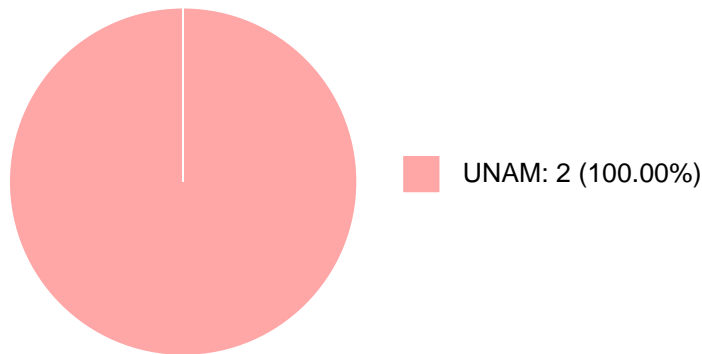


| # | Título  | Autores  | Alcance                 | Año  | ISBN          |
|---|---|--|-------------------------|------|---------------|
| 1 | Removal of arsenic from acid mine drainage by indigenous limestones   | MARIA AURORA<br>ARMIENTA HERNANDEZ<br>OLIVIA CRUZ RONQUILLO<br>ALEJANDRA AGUAYO<br>RIOS et al.       | Conferenc<br>e Paper    | 2016 | 9781138029415 |
| 2 | Evaluation of the potential release of toxic metals and metalloids from tailings at an historical mining site of Mexico | MARIA AURORA<br>ARMIENTA HERNANDEZ<br>OLIVIA CRUZ RONQUILLO<br>NORA ELIA CENICEROS<br>BOMBELA et al. | Capítulo<br>de un Libro | 2010 | 9781439862995 |
| 3 | Environmental behavior of arsenic in a mining zone: Zimapán, Mexico   | MARIA AURORA<br>ARMIENTA HERNANDEZ<br>RAMIRO RODRIGUEZ<br>CASTILLO OLIVIA CRUZ<br>RONQUILLO et al.   | Conferenc<br>e Paper    | 2005 | 041536700X    |

**ALEJANDRA AGUAYO RIOS**

**PARTICIPACIÓN EN PROYECTOS**

**Histórico de participación en proyectos**



| # | Nombre   | Participantes         | Fuente   | Fecha inicio | Fecha fin  |
|---|--|-----------------------|--|--------------|------------|
| 1 | Contaminantes ambientales en aguas subterráneas. | ALEJANDRA AGUAYO RIOS | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2018   | 31-12-2021 |
| 2 | Contaminantes ambientales en agua subterránea.   | ALEJANDRA AGUAYO RIOS | Presupuesto de la UNAM asignado a la Dependencia | 01-01-2023   | 31-12-2023 |



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**ALEJANDRA AGUAYO RIOS**

**PARTICIPACIÓN EN TESIS**

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

**ALEJANDRA AGUAYO RIOS**





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**ALEJANDRA AGUAYO RIOS**

**DOCENCIA IMPARTIDA**

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

**ALEJANDRA AGUAYO RIOS**



**Sistema Integral de Información Académica**  
**Coordinación de Planeación, Evaluación y**  
**Simplificación de la Gestión Institucional**  
**Reporte individual**



**ALEJANDRA AGUAYO RIOS**

**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    | 2008-2024 |
| 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 |