

**Miriam R. Aczel**  
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## **RESEARCH FOCUS**

I combine my science background with a strong focus on policy and law to study environmental change impacts on human life. My work includes research on regulation of hydraulic fracturing in the United States, and internationally (United Kingdom, France, Brazil, China, Algeria, Israel); mitigation of environmental and health impacts of unconventional gas extraction; international human rights law and policy; climate migrant rights; greenhouse gas removal technologies (GGR).

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## **EDUCATION**

**Ph.D. Candidate** (expected completion June 2020)

**President's PhD Scholar**, Centre for Environmental Policy,  
**Imperial College London, London, UK**

Dissertation Research: Regulation of Hydraulic Fracturing and Shale Gas Extraction.  
PhD Dissertation Committee: Karen Makuch (supervisor); Prof. Zen Makuch; Prof. Kaveh Madani

**M. Sc. Environmental Technology with Distinction (First Class Honors), 2015**

**Centre for Environmental Policy, Imperial College London, London, UK**

Global Environmental Change and Policy specialization. Relevant coursework: international environmental law and politics, environmental economics, statistics and data analysis, climate change science and law, energy science and law.

MSc. Thesis: Environmental and public health impacts of hydraulic fracturing

**B. A. in Geography with Distinction (First Class Honors), Minors in Earth and Planetary Science; Italian Language and Literature 2014**

**McGill University, Montreal, QC, Canada**

Relevant science coursework: calculus, statistics, physics, chemistry, hydrology, remote sensing, geology and geophysics, physical and social geography.

**Institut d'études politiques de Paris, (Paris Institute of Political Studies), Paris, France Semester Abroad McGill University (competitive) bilateral exchange semester. (2012-2013)**

**Università degli Studi di Firenze (University of Florence), Florence, Italy. (European Credit Transfer System (ECTS) Grade A; First Class Honors), Semester abroad, McGill University. (Summer 2011)**

## HONORS AND AWARDS

- 2016-2020 Imperial College London, **President's PhD Scholarship** (full tuition fees covered and £87,500 funding)
- 2018 American Association for the Advancement of Science (AAAS) **Joshua E. Neimark Memorial Award** (\$800)
- 2018 Case Studies in the Environment Journal (UC Press), **Annual Case Study Competition, Second Place Award** (\$500)
- 2017 American Association for the Advancement of Science (AAAS) **Science and Human Rights Student Essay Competition, First Place, Graduate Entry**  
[http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news\\_7-8-2017-15-52-50](http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_7-8-2017-15-52-50)
- 2017 Imperial College London **Outstanding Student Achievement Award**
- 2016 Centre for Environmental Policy, Imperial College London, **Ross Makuch Memorial Law Prize** (£200)
- 2013 McGill University, **Prix-d'excellence du Centre d'enseignement du français**, (French Language Award for Excellence)

## PUBLICATIONS

### Articles in Peer-Reviewed Journals

- Aczel, M. R.**, Zaman, S., & Makuch, K. (Forthcoming). Do children want environmental rights? Ask the kids! *Electronic Green Journal*.
- Makuch, K., & **Aczel M. R.** (2019). Environmental citizen science for social good: Engaging children and promoting justice, diversity, health and inclusion, *Research on Social Work Practice*. 1-14. <https://doi.org/10.1177/1049731519890404>
- Aczel, M. R.**, Aczel, D., & Petrack, M. (2019). Hero from the East: How zero came to the West. *Frontiers for Young Minds* 7(128). doi: 10.3389/frym.2019.00128
- Makuch K, Zaman S, & **Aczel, M. R.** (2019). Tomorrow's stewards: The case for a unified international framework on the environmental rights of children, *Health and Human Rights*, 21(1), 203-214.
- Aczel, M. R.**, & Makuch, K. E. (2019). Shale, quakes, and high stakes: Regulating fracking-induced seismicity in Oklahoma, USA and Lancashire, UK. *Case Studies in the Environment*. doi: <https://doi.org/10.1525/cse.2018.001719>

**Aczel, M. R., & Makuch, K. E.** (2018). Human rights and fracking in England: The role of the Oregon Permanent People's Tribunal. *Health and Human Rights*, 20(2), 31.

**Aczel, M. R., & Makuch, K. E.** (2018). Environmental impact assessments and hydraulic fracturing: Lessons from two US states. *Case Studies in the Environment*, 2(1), 1-11. (Award-winning publication).

**Aczel, M. R., Makuch, K. E., & Chibane, M.** (2018). How much is enough? Approaches to public participation in shale gas regulation across England, France, and Algeria. *The Extractive Industries and Society*, 5(4), 427-440.

**Aczel, M. R., & Makuch, K. E.** (2018). The lay of the land: the public, participation and policy in China's fracking frenzy. *The Extractive Industries and Society*, 5(4), 508-514.

## **BOOK CHAPTERS**

**Aczel, M. R., & Makuch, K. E.** (2018). An assessment of current regulation and suggestions for a citizen-centred approach to the governing of UK hydraulic fracturing. In A. Szolucha (Ed.), *Energy, Resource Extraction and Society* (pp. 196-213). London: Routledge.

Makuch, K. E. & **Aczel, M. R.** (2018). Children, citizen science and participation processes: Engaging our most valuable resources. In Hecker, S., Haklay, M., Bowser, A., Makuch, Z., & Vogel, J. (Eds.), *Citizen science: Innovation in open science, society and policy* (pp. 391-409). London: UCL Press.

## **Articles Under Review**

**Aczel, M. R., & Makuch, K. E.** (under review). Shale resources, parks conservation, and contested public lands in North Dakota's Theodore Roosevelt National Park: Is fracking booming? *Case Studies in the Environment*

**Aczel, M. R., Hakim, S., Makuch, K.E., & Carling, C.** (under review). The health and human rights implications of climate migration. *Health and Human Rights*.

**Aczel, M. E.** (under review). Hydraulic fracturing and unconventional gas extraction explained. *Frontiers for Young Minds*.

## **ARTICLES IN PROCESS**

Socio-legal implications of greenhouse gas removal technologies in the UK: barriers and opportunities (collaborating with Dr. Mark Workman, and supervising MSc. students Trish O'Beirne, Amy Mallett, Francesca Battersby)

Future Energy Scenarios (FES) post-Brexit: A SWOT analysis (**Aczel, M.R., O'Cinneide, A.**)

Citizen science and biodiversity in China (Cao, D., Makuch, K., **Aczel, M.R.**)

Climate Loss and Damage: A new mechanism for Bangladesh (Barmaz, L., Makuch, K., **Aczel, M.R.**)

Environmental rights of children: Towards A comprehensive legal framework (Carling, C., Makuch, K., **Aczel, M.R.**)

## **RESEARCH AND PUBLICATION GRANTS**

- 2019-2020 National Science Foundation (NSF) Socio-Environmental Synthesis Center (SESYNC) Graduate Pursuit: Mangroves and Globalization. 2-year (highly competitive) research grant to conduct collaborative socio-environmental synthesis research (c. \$20,000 in research expenses; \$2000 stipend)
- 2018 Sao Paulo Research Federation Water-Energy-Food Nexus Grant, Campinas, Brazil (all expenses paid; \$1000 stipend)
- 2018 Energy Impacts Book Chapter Author Travel Grant, University of Bergen, Norway (NOK 5000)
- 2018 Imperial College London Trust Grant, London, UK, to support presentation of research at an international conference (£300)
- 2017 Energy Impacts Conference Travel Grant, University of Bergen, Norway (£500)
- 2017 Imperial College London –Tsinghua University Beijing Global Fellow Research Grant (£1500)
- 2017 European Union Horizon 2020 Internship Grant, University of East London (€2000)
- 2017 Roche Continents Program, Imperial College London Delegate, Salzburg, Austria (fully funded) (€10,000)
- 2017 Imperial College Research as Art Competition Bursary
- 2012 Global Exchange Student Scholarship, Sciences Politiques Paris, McGill University (\$1300)

## **ADDITIONAL RESEARCH EXPERIENCE**

- 2017 **EU Horizon 2020 Funded Internship**, sponsored by Social Sciences and Humanities for Advancing Policy in European Energy (SHAPE-ENERGY)

Conducted research on reducing energy use in data centers and server software and hardware efficiency  
Placement: School of Architecture, Computing and Engineering, University of East London (UEL), London, UK

- 2015 **Intern, Oil and Gas Team**  
Researched developments in shale gas extraction and hydraulic fracturing and wrote articles for *Law Now* online legal publication and client pamphlet publications  
CMS Cameron McKenna LLP, London, UK
- 2013 **Undergraduate Researcher**  
Collected and analyzed data on comparative nitrogen loss in organic and conventional farming  
McGill University Laboratory of Land Use and the Global Environment, Montreal, QC, Canada
- 2013 **Undergraduate Researcher**  
Mapped drainage network changes in foothills along the strike of the Cordillera Blanca, Peru, using ArcGIS  
McGill University Department of Earth and Planetary Sciences, Montreal, QC, Canada
- 2012 **Laboratory Intern**  
Contributed to design of MATLAB program to synthesize soil percolation data and create calibration curve  
Weizmann Institute of Science, Environmental Sciences and Energy Research, Rehovot, Israel
- 2011 – 2012 **Editorial Assistant to Post-Doctoral Researcher in Energy Engineering**  
Edited complex technical academic papers for journal submission  
McGill University, Montreal, QC, Canada

## **VISITING RESEARCH POSITIONS**

- 2018 **Visiting Researcher:** Conducted research on China's laws and policies on shale gas, clean energy and pollution  
School of Law, Tsinghua University, Beijing, China
- 2017 **Visiting Researcher:** Conducted research on role of community outreach and environmental education on mitigation of environmental impacts of shale gas/hydraulic fracturing  
Massachusetts Institute of Technology (MIT), Cambridge, MA

2017-present **Visiting Researcher:** Currently conducting research on environmental and energy law and policy, with emphasis on shale gas and hydraulic fracturing in the US Environmental Law Institute, Washington, DC

## FUNDED SEMINARS

2018 **United Nations Environment Program:** Environmental Law for Sustainability (fully-funded participant) Geneva, Switzerland

2017 **Imperial-Tsinghua Global Fellows Summer School** – Climate Change and Energy (fully-funded participant) Easthampstead Park, UK

2017 **Social Sciences and Humanities for Advancing Policy in European Energy (SHAPE-Energy) Summer School**, Social Science Research for Energy Policy (fully-funded participant), University of Lyon, France

## ACADEMIC EXPERIENCE

### Teaching

2015-present **President's Scholar Academic Researcher and Graduate Lecturer**  
Centre for Environmental Policy, Imperial College London, London, UK  
Prepare and deliver lectures to MSc. students on shale gas technology, international energy law and policy, statistics, and international environmental policy to M.Sc. students in Environmental Technology course, Energy Futures, and Ecology, and statistics laboratory for M.Sc. students.  
3 hour Master's level courses include: Shale gas and hydraulic fracturing law and policy (Winter 2015; 2016; 2017; 2018); Energy justice (Winter 2017; 2018); Climate refugees (Winter 2018); Citizen science (Winter 2016; 2017; 2018); Ecological modelling and statistics (Fall 2015; 2016; 2017; 2018)  
Undergraduate seminars: Ecology and biology (Winter 2017; 2018)

2016-present **Thesis Co-Supervisor**, Global Environmental Change and Policy option, MSc Environmental Technology  
**Imperial College London**, Centre for Environmental Policy, London, UK  
Supervision of 6 Master's theses on topics including: socio-legal implications of greenhouse gas removal technologies in the UK, citizen science and biodiversity in China; clean energy business models and narratives for success. Currently assisting with publications in progress.

2015-present **Academic tutor** for mathematics, science, reading and writing in preparation for standardized college entrance examinations  
Mansart Education Ltd., London, UK

## PROFESSIONAL EXPERIENCE

2018-present **Scientific consultant.** Providing technical expertise on a wide range of STEM and science policy topics; forecasting and mapping of future trends such as changes in autonomous technology  
Associates Consulting, LTD. London, UK

## SERVICE

2018-present **Director of Communications,** Leaders in Energy, Washington, DC  
Managing blog, newsletters, and other written communications, and writing, editing, and publishing blog articles and editorials for energy-focused non-profit organization

2016-present **Policy Advisor and Environmental Science Communicator and Board Member,** Leaders in Energy, Washington, DC

2015-present **Co-Director and Co-Founder, Amir D. Aczel Foundation for Research and Education in Science and Mathematics,** Phnom Penh, Cambodia  
Non-profit foundation supporting youth education in Cambodia.  
Accomplishments include: Successfully fundraised and organized museum installation in Cambodia National Museum, Phnom Penh; successfully organized international mathematics and culture conference in Phnom Penh, Cambodia.

2017-present **Editorial Board Member**  
Reviewing and editing publications and assists with development and organization of special issues  
Journal of Science Policy and Governance (JSPG), Washington, DC

2017-present **Ambassador and Volunteer**  
Named ambassador to 'Gifted Citizen' program, an international competitive program that seeks to identify innovative business plans that include 'social good' in their design. Developed ambassador's roll to increase program's visibility  
**La Ciudad de las Ideas (City of Ideas), Gifted Citizen,** Mexico City, Mexico

2015 **Conference Planning Committee Member and Volunteer**  
Core Research Laboratories: Computed Tomography (CT) Specialist and Tomography for Scientific Advancement (ToScA) conference organizing committee member, Natural History Museum, London, UK

## CONFERENCE PRESENTATIONS

### Peer-Reviewed

Aczel, M. R. & Makuch, K. E. (2019, September). Benefits of engaging children in Eco-citizen

science. Poster presented at the British Environmental Psychology Society, Annual Meeting, Cardiff, UK.

**Aczel, M. R.** (2019, February). Approaches to public participation in ‘fracking’ regulation in France and England. Poster presented at the Annual General Meeting of the American Association for the Advancement of Science, Washington, DC.

**Aczel, M. R.** (2018, September). Regulating environmental and health impacts of ‘fracking’: Lessons drawn from two case studies in the USA. Poster presented at annual meeting of US Association of Energy Economists, Washington, DC.

**Aczel, M. R.** (2018, April). Regulating fracking risks: Are environmental impact assessments enough? Invited talk delivered at the American Water Resources Association’s National Capital Water Resources Symposium, Washington, DC.

**Aczel, M. R.** (2018, February). Regulating environmental impacts of ‘fracking’: A comparison of environmental impact assessments in New York and California. Poster presented at the American Association for the Advancement of Science Annual General Meeting, Austin, Texas.

**Aczel, M. R.** (2017, October). Mitigating environmental impacts of *fracking* in the UK: Lessons drawn from two case studies in the USA. Poster presented at the Shale Environment European Consortium, Shaleology Forum, London, UK.

**Aczel, M. R. & Makuch, K. D.** (2017, September). Regulating environmental and public health impacts of hydraulic fracturing in the UK: lessons drawn from two case studies in the U.S. Poster presented at the 15th International Conference on Environmental Science and Technology (CEST), Rhodes, Greece.  
<https://cest2017.gnest.org/group/2261/proceedings.html>

**Aczel, M. R.** (2017, March). An evaluation of the regulatory framework for mitigating environmental and public health risk associated with hydraulic fracturing in the United Kingdom. Panel presentation at Energy Impacts Conference: People, Responsibilities and the Contested Futures of Energy Developments, Bergen, Norway.

**Aczel, M. R.** (2017, January). Environmental impact assessments for hydraulic fracturing. Poster presented at the National Council for Science and the Environment (NCSE) 17<sup>th</sup> National Conference and Global Forum on Science, Policy, and the Environment: Integrating Environment and Health, Washington, DC.

**Aczel, M. R.** (2016, October). Mitigating environmental and public health risk associated with hydraulic fracturing in the United Kingdom: Preliminary recommendations, with reference to the analogous experience of the United States. Poster presented at the SFEcologie 2016 International Conference on Ecological Sciences, Marseille, France.



## OTHER PRESENTATIONS

**Aczel, M. R.** (2019, April). Regulating fracking-induced seismicity: Lessons from Oklahoma, USA. Imperial College London, Center for Environmental Policy, Annual Research Symposium, London UK.

**Aczel, M. R.** (2018, May). Hydraulic fracturing in China. Talk delivered at the Imperial College President's Scholar Research Symposium, London, UK.

**Aczel, M. R.** (2017, July). Fractured: Using art and citizen science to explore the shale gas debate. Art display presented at Imperial College London's PhD Science as Art Competition, London, UK.

**Aczel, M. R.** (2017, May). Hydraulic fracturing environmental impacts case study: New York and California. Poster presented at President's Scholar Research Symposium, Imperial College, London, UK.

## SELECTED BOOK REVIEWS (SELECTED)

**Aczel, M. R.** (2019). A straightforward guide offers a nuanced look at unconventional fossil fuel extraction [Review of the Book *The fracking debate: The risks, benefits, and uncertainties of the shale revolution* by D. Raimi]. *Science*, 363, 132-132.

**Aczel, M. R.** (2018). China and the geopolitics of rare earths [Review of the Book *China and the geopolitics of rare earths* by S. Kalantzakos]. *International Affairs*, 94(4), 937-939.

**Aczel, M. R.** (2018). Shale boom: The Barnett Shale Play and Fort Worth [Review of Book *Shale boom: The Barnett Shale Play and Fort Worth* by D. D. Hinton]. *Extractive Industries and Society*, 5(4), 701-702.

**Aczel, M. R.** (2018). The shale dilemma: A global perspective on fracking & shale development [Review of Book *The shale dilemma: A global perspective on fracking & shale development* by S. Gamper-Rabindran (Ed.)] *Energy Research and Social Science*, 42, 134-135.

**Aczel, M. R.** (2018). Regulating shale gas: The challenge of coherent environmental and energy regulation [Review of book *Regulating shale gas: The challenge of coherent environmental and energy regulation* by Leonie Reins] *European Energy and Environmental Law Review*, 24(7), 175-178.

**Aczel, M. R.** (2018). The simple physics of energy use [Review of Book *The simple physics of energy use* by P. Rez]. *Contemporary Physics*, 59(2)2, 217-218.

**Aczel, M. R.** (2017). The real cost of fracking: How America's shale gas boom is threatening

our families, pets, and food' [Review of the Book *The real cost of fracking: How America's shale gas boom is threatening our families, pets, and food* by M. Bamberger & R. Oswald]. *Frontiers in Environmental Science*, 5, 17.  
<https://www.frontiersin.org/articles/10.3389/fenvs.2017.00017/full>

**Aczel, M. R.** (2017). Burn out: The endgame for fossil fuels [Review of the Book *Burn out: The endgame for fossil fuels* by D. Helm]. *International Affairs*, 93(4), 982-983.

**Aczel, M. R.** (2017). The science and politics of global climate change: A guide to the debate [Review of book *The science and politics of global climate change: A guide to the debate* by Andrew Dessler & Edward Parson]. *European Energy and Environmental Law Review*, 26(5), 148-150.

**Aczel, M. R.** (2017). Policy debates on hydraulic fracturing: Comparing coalition politics in North America and Europe [Review of Book *Policy debates on hydraulic fracturing: Comparing coalition politics in North America and Europe* by C. Weible, T. Heikkila, K. Ingold & M. Fischer, (Eds.)]. *Energy Research and Social Science*, 34, 281-282.

**Aczel, M. R.** (2017). Global warring: How environmental, economic, and political crises will redraw the world map [Review of the book *Global warring: How environmental, economic, and political crises will redraw the world map* by C. Paskal]. *Global Governance*.  
<http://acuns.org/review-of-global-warring-how-environmental-economic-and-political-crises-will-redraw-the-world-map/>

**Aczel, M. R.** (2017). Hydrogen storage technology: Materials and applications. [Review of Book *Hydrogen storage technology: Materials and applications*] by L. Klebanoff] *Contemporary Physics*, 59(1), 99.

**Aczel, M. R.** (2017). A year in Rock Creek Park: The wild, wooded heart of Washington, DC [Review of Book *A year in Rock Creek Park: The wild, wooded heart of Washington, DC* by M. Choukas-Bradley] *Electronic Green Journal*, 1(40).  
<http://escholarship.org/uc/item/262093pv>

**Aczel, M. R.** (2016). Crisis of global sustainability [Review of book *Crisis of global sustainability* by T. Kanninen] *Global Governance*.  
<http://acuns.org/review-of-crisis-of-global-sustainability/>

## **SCIENCE COMMUNICATION AND OUTREACH: SELECTED MOST RECENT BLOGS**

### **Women's Council on Energy and the Environment**

**M. Aczel.** (2018, Q4). New research highlights dramatic increase in fracking's water footprint.

Women's Council on Energy and the Environment.  
[https://www.wcee.org/page/05\\_2018Q4](https://www.wcee.org/page/05_2018Q4)

**M. Aczel.** (2018, Q2). Car dealerships as a barrier to electric vehicle uptake. Women's Council on Energy and the Environment. [https://www.wcee.org/page/03\\_2018Q2](https://www.wcee.org/page/03_2018Q2)

**Environmental Law Institute: *Vibrant Environment***

**M. Aczel.** (2019, April 24). Youth activism and climate change: A European Perspective. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/youth-activism-and-climate-change-european-perspective>

**M. Aczel.** (2018, September 10). French Environment Minister's resignation: A frustrated call for climate action. Environmental Law Institute. <https://www.eli.org/vibrant-environment-blog/french-environment-ministers-resignation-frustrated-call-climate-action>

**M. Aczel.** (2018, August 27). China's gas shortage. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/chinas-gas-shortage>

**M. Aczel.** (2018, April 23). MethaneSAT: Monitoring methane emissions from space. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/methanesat-monitoring-methane-emissions-space>

**M. Aczel.** (2018, April 16). Fossil fuel swap: New study shows "overlooked" benefits of switching from coal to gas. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/fossil-fuel-swap-new-study-shows-overlooked-benefits-switching-coal-gas>

**M. Aczel.** (2018, March 5). SCOOP & STACK causing cracks: Oklahoma tightens regulations to curb fracking earthquakes. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/scoop-stack-causing-cracks-oklahoma-tightens-regulations-curb-fracking-earthquakes>

**M. Aczel.** (2018, February 12) Measuring up: Smart meter lessons from the United Kingdom. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/measuring-smart-meter-lessons-united-kingdom>

**M. Aczel.** (2018, January 31). Microgrids: Distributed energy and resilience. Environmental Law Institute.  
<https://www.eli.org/vibrant-environment-blog/microgrids-distributed-energy-and-resilience>

**M. Aczel.** (2018, January 22). Shale gas: Bridge fuel or pipe dream? Environmental Law Institute.

<https://www.eli.org/vibrant-environment-blog/shale-gas-bridge-fuel-or-pipe-dream>

**Leaders in Energy Blog** (selected list of most recent articles)

- M. Aczel. (2019, December 5). Ocean microplastics are multiplying. <https://leadersinenergy.org/ocean-microplastics-are-multiplying/>
- M. Aczel. (2019, July 14). Climate vs weather: Asking and answering sticky questions. <https://leadersinenergy.org/climate-vs-weather-asking-and-answering-sticky-questions/>
- M. Aczel. (2019, July 8). Climate change and world peace: Recognizing young leaders. <https://leadersinenergy.org/climate-change-and-world-peace-recognizing-young-leaders/>
- M. Aczel. (2019, June 6). Rewriting the equation for fossil fuel emissions. <https://leadersinenergy.org/rewriting-the-equation-for-fossil-fuel-emissions/>
- M. Aczel. (2019, May 10). Technology and society: Towards an ethical and sustainable future. <https://leadersinenergy.org/technology-and-society-towards-an-ethical-and-sustainable-future/>
- M. Aczel. (2019, May 2). Youth activism and climate change: A European Perspective. <https://leadersinenergy.org/youth-activism-and-climate-change-a-european-perspective/>
- M. Aczel. (2019, February 21). Knowledge as power: Improving the energy industry with artificial intelligence and ‘smart’ systems. <https://leadersinenergy.org/knowledge-as-power-improving-the-energy-industry-with-artificial-intelligence-and-smart-systems/>
- M. Aczel. (2019, January 20). The grapes of wrath: Global warming and wine. <https://leadersinenergy.org/the-grapes-of-wrath-global-warming-and-wine/>
- M. Aczel. (2019, January 15). New research highlights dramatic increase in fracking’s footprint. <https://leadersinenergy.org/new-research-highlights-dramatic-increase-in-frackings-water-footprint/>

**Woodrow Wilson International Center for Scholars: CTRL Forward**

- M. Aczel. Citizen science: How ordinary people are changing the face of science [Review of the book *How ordinary people are changing the face of science* by Caren Cooper] <https://www.wilsoncenter.org/blog-post/book-review-citizen-science-how-ordinary-people-are-changing-the-face-discovery>

**Shape Energy: Internships Blog**

- M. Aczel. My internship at EURECA Project. Shape Energy. <https://shapeenergy.eu/index.php/blog-internship-eureca-project/>
- M. Aczel. A Visit with Winston Churchill. Shape Energy.

<https://shapeenergy.eu/index.php/blog-visit-winston-churchill-experiences/>

## **MEDIA**

- 2018            **Interview: Science Communication and Leaders in Energy.**  
*EmeraldPlanet TV, Fairfax Public Media, Fairfax, Virginia*
- 2011            Produced YouTube segment: Neutrinos faster than light
- 2011            Produced YouTube segment: The meridian of Paris
- 2010            Produced YouTube segment: Large Hadron Collider

## **SKILLS AND LANGUAGES**

**Languages: English** (native); **French, Italian, Hebrew** (fluent), **Spanish, Arabic** (beginner/intermediate)

**Software:** Arc-GIS systems modeling; MATLAB; ENVI remote sensing; Microsoft Office; Excel; Adobe Flash; InDesign; Photoshop; HTML; WordPress; R; Python

**Leadership:** Actively promoting international collaboration and partnerships. Self-motivated and driven by desire to advance scientific understanding and communication through use of art and other creative media.

## **PROFESSIONAL MEMBERSHIPS**

American Association for the Advancement of Science (AAAS)  
Women's Council on Energy and Environment (WCEE)  
UK Association of Energy Engineers (UKAEE)  
Academic Council on the United Nations System (ACUNS)  
Engaging Scientists and Engineers in Policy Coalition (ESEP)  
Sigma XI  
Leaders in Energy Research, Communications, Policy & Analysis (LERCPA)  
Union of Concerned Scientists (UCS)  
American Geophysical Union (AGU)  
Association for Asian Studies (AAS)  
AAAS Science and Human Rights Coalition