

# S. Julio Friedmann

## **Position/Department/Division/Institution/Organization**

Senior research Scholar, Center on Global Energy Policy, Columbia University

## **Country**

U.S.A.

## **Career history**

**Senior Research Scholar (2018-pres) Center for Global Energy Policy, Columbia Univ.**

**CEO and President, (2017-pres) Carbon Wrangler, LLC**

**Distinguished Associate (2017-pres) Energy Futures Initiative**

**Senior Advisor for Energy Innovation (2016-pres) Lawrence Livermore Natl. Laboratory**

**Principal Deputy Asst. Secretary (2014-2016) Office of Fossil Energy (FE), U.S. DOE**

**Deputy Asst. Secretary for Clean Coal and Carbon Management (2013-2014), U.S. DOE**

**Chief Energy Technologist (2011-2013) Lawrence Livermore Natl. Lab, Livermore, CA**

**Director, Carbon Management Program (2003 – 2011) LLNL, Livermore, CA**

**Assistant Research Scientist (2001-2004) University of Maryland, College Park**

**Sr. Research Geol. (1998-2000) ExxonMobil Upstream Research Co., Houston**

**Research Geologist (1996-1998) Exxon Production Research Co., Houston**

## **Awards/Publications**

**Greenman Award (IEA):** Significant contributions for CO<sub>2</sub> removal, storage, and utilization (2016)

Co-lead, Direct Air Capture of Carbon Dioxide, Roadmap, Innovation for a Cool Earth Forum, Dec.

2018, [https://www.icef-forum.org/pdf2018/roadmap/ICEF2018\\_DAC\\_Roadmap\\_20181210.pdf](https://www.icef-forum.org/pdf2018/roadmap/ICEF2018_DAC_Roadmap_20181210.pdf)

Building a New Carbon Economy: An Innovation Plan, New Carbon Economy Consortium, Sept.

2018, <https://carbon180.org/s/ccro2innovationplanFNL-3wkx.pdf>

Advancing Large-Scale Carbon Management: Expansion of the 45Q Tax Credit, Policy Paper, Energy Future Initiative, May 2018

[https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5b0604f30e2e7287abb8f3c1/1527121150675/45Q\\_EFI\\_5.23.18.pdf](https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/5b0604f30e2e7287abb8f3c1/1527121150675/45Q_EFI_5.23.18.pdf)

**Innovation for Cool Earth Forum (ICEF)  
6th Annual Meeting**

October 9-10, 2019

Hotel Chinzanso Tokyo, Japan

Congressional Testimony, Senate Committee on Energy and Natural Resources, Enhancing the Future of CCUS, 2019

<https://www.energy.senate.gov/public/index.cfm/2019/5/full-committee-hearing-to-examine-ccus-and-to-receive-testimony-on-legislation>

Congressional Testimony, Senate Environment & Public Works Committee The USE IT Act and CCUS Deployment, 2018

[https://www.epw.senate.gov/public/\\_cache/files/6/8/68543b44-27ad-4a98-b03b-0101e9c66543/B5CEB3DDBCD44E586388A553B4C2918B.04.11.2018-friedman-testimony.pdf](https://www.epw.senate.gov/public/_cache/files/6/8/68543b44-27ad-4a98-b03b-0101e9c66543/B5CEB3DDBCD44E586388A553B4C2918B.04.11.2018-friedman-testimony.pdf)

Congressional Testimony, Senate Environment and Public Works Committee, EXPANDING AND ACCELERATING THE DEPLOYMENT AND USE OF CARBON CAPTURE, UTILIZATION, AND SEQUESTRATION, 2017

<https://www.gpo.gov/fdsys/pkg/CHRG-115shrg27318/pdf/CHRG-115shrg27318.pdf>

Chapter 7 (Carbon removal), UN Environmental Program Emissions Gap Report, Nov. 2017

[https://wedocs.unep.org/bitstream/handle/20.500.11822/22070/EGR\\_2017.pdf](https://wedocs.unep.org/bitstream/handle/20.500.11822/22070/EGR_2017.pdf)

Carbon Dioxide Utilization Roadmap 2.0, Innovation for a Cool Earth Forum, Oct. 2017

[https://www.icef-forum.org/platform/upload/CO2U\\_Roadmap\\_ICEF2017.pdf](https://www.icef-forum.org/platform/upload/CO2U_Roadmap_ICEF2017.pdf)

Roadmap for US-China Collaboration on Carbon Capture and Sequestration, Asia Society Press, 41p.

[http://asiasociety.org/files/pdf/AS\\_CCS\\_TaskForceReport.pdf](http://asiasociety.org/files/pdf/AS_CCS_TaskForceReport.pdf)

## Areas of expertise

Carbon Capture and Storage (CCS), Direct Air Capture (DAC) and Carbon-to-value (CO<sub>2</sub> Use)

Advanced power cycles and energy conversion

Shale gas and tight hydrocarbon science, technology development and practice

Smart grid design, planning and operations, including renewable integration

Oil and gas exploration and production

Geology and geophysics (emphasis on stratigraphy and geomechanics)

Chinese energy systems, conversion, and networks