

Oil and Gas



How do we continue to live with Oil and Gas in the 21st Century? Our existing infrastructure relies on oil and gas and will continue to do so until late into this century. We know stocks are dwindling, so the challenge we face is in how to make the most of what we have left whilst minimising our impact on the world around us. Birmingham's research into oil and gas is wide reaching, covering aspects of exploration, recovery, use and consequences.

Our School of Metallurgy and Materials is working on improving safety in deep oil extraction pipelines, understanding and optimising their performance for the highly corrosive environments they will operate in. Our Chemical Engineers are also working on oil extraction from tar sands using Toe to Heel Air Injection techniques to minimise the potential environmental impact. Carbon capture and the creation of novel products from carbon dioxide is another strand of their work in this area.



In addition, much of our research in fields including Automotive and Aerospace looks at improving fossil fuel efficiency and we also research extensively into understanding the emissions from fossil fuel use and their environmental impacts. We also have academics in the School of Law who specialise in international oil and gas law.

Our School of Physics and Astronomy has an internationally recognised Cold Atoms group, who are developing quantum sensor technology with the potential to be used in oil and gas exploration. Our School of Geography, Earth and Environmental Sciences provides post-graduate level training in micropalaeontology and seismic imaging technology, which are both used by the oil and gas industry to map underground trap structures.

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