

## 2018 Project: [Producing Carbon Fibre from a Barrel of Pitch](#)

Project team: Claire Wilson (Process Chemical Engineering), Adam MacEachern (Biochemical Engineering), Siri Lake (Biochemical Engineering), Ravin Lee (Process Chemical Engineering)

Queen's advisors: Dave Mody, Ashwin Gupta, Peter Renaud

BCSE advisors: Ed Brost, John Ward



**Abstract** This study investigated the chemistry of Alberta bitumen derived pitch feedstocks and likely chemical changes to the feedstock in order to produce a suitable carbon fibre precursor. Since pitch derived from Alberta bitumen is currently not used as a carbon fibre feedstock, a key deliverable from this study was to identify the knowledge gaps needing further study and R&D.

Study scope included, starting with bitumen derived pitch and ending with finished carbon fibres, identify chemical engineering process steps, energy and material inputs, process economics and preparing simple flow sheets.

The study report provides information related to the carbon fibre industry, technologies used to manufacture carbon fibre, current feedstocks and where future R&D should focus.

**To discuss this project or obtain a copy of the final report (a fee is required) please contact [contact@bowmancentre.com](mailto:contact@bowmancentre.com)**