

## **Preface**

The petroleum industry, also known as the oil industry or the oil patch, includes the global processes of exploration, extraction, refining, transportation (often by oil tankers and pipelines), and marketing of petroleum products. The largest volume products of the industry are fuel oil and gasoline (petrol). Petroleum is also the raw material for many chemical products, including pharmaceuticals, solvents, fertilizers, pesticides, synthetic fragrances, and plastics. The industry is usually divided into three major components: upstream, midstream, and downstream. Upstream regards exploration and extraction of crude oil, midstream encompasses transportation and storage of crude, and downstream concerns refining crude oil into various end products.

Petroleum is vital to many industries, and is necessary for the maintenance of industrial civilization in its current configuration, making it a critical concern for many nations. Oil accounts for a large percentage of the world's energy consumption, ranging from a low of 32% for Europe and Asia, to a high of 53% for the Middle East.<sup>i</sup>

In the present book, twenty typical literatures about petroleum industry published on international authoritative journals were selected to introduce the worldwide newest progress, which contains reviews or original researches on petroleum industry. We hope this book can demonstrate advances in petroleum industry as well as give references to the researchers, students and other related people.

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<sup>i</sup> [https://en.wikipedia.org/wiki/Petroleum\\_industry](https://en.wikipedia.org/wiki/Petroleum_industry)