

## Preface

Power electronics is the application of electronics to the control and conversion of electric power. Power electronics started with the development of the mercury-arc rectifier. Invented by Peter Cooper Hewitt in 1902, it was used to convert alternating current (AC) into direct current (DC). From the 1920s on, research continued on applying thyratrons and grid-controlled mercury-arc valves to power transmission. Uno Lamm developed a mercury valve with grading electrodes making them suitable for high-voltage direct current power transmission. In 1933 selenium rectifiers were invented.<sup>1</sup>

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

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<sup>1</sup> [https://en.wikipedia.org/wiki/Power\\_electronics](https://en.wikipedia.org/wiki/Power_electronics)