

Preface

Aerogels are a class of synthetic porous ultralight material derived from a gel, in which the liquid component for the gel has been replaced with a gas, without significant collapse of the gel structure. The result is a solid with extremely low density and extremely low thermal conductivity. Aerogels can be made from a variety of chemical compounds. Silica aerogels feel like fragile styrofoam to the touch, while some polymer-based aerogels feel like rigid foams.¹

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

The Editorial Board of Academic Archives
Scientific Research Publishing
May 30th,2025

¹ <https://en.wikipedia.org/wiki/Aerogel>